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# FRM P-2

## Changes in Syllabus

# 2025

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CA, CS, CFA, FRM, CAIA, CIPM, CFP, RV, CCRA, CIIB, CIRA, AIM

## FRM P2 | Summary of Changes | 2025

	New	Changes	Deleted
	<b>No. of Chapters</b>	<b>No. of LOS</b>	<b>% of Total</b>
Same	82	533	91%
New	11	47	8%
Changes	11	6	1%
<b>Total</b>	<b>104</b>	<b>586</b>	<b>100%</b>
Deleted	10	53	9%

Reading	Reading Name	No. of LOS		
		New	Changes	Deleted
4	Backtesting VaR	1		1
5	VaR Mapping		1	
6	Validation of Risk Management Models for Financial Institutions	4		
7	Beyond Exceedance-Based Backtesting of Value-at-Risk Models	4		
11	Regression Hedging and Principal Component Analysis	1		
13	Expectations, Risk Premium, Convexity, and the Shape of the Term Structure	1		
16	The Vasicek and Gauss Models	4		
23	Introduction to Credit Risk Modeling and Assessment		1	
48	Integrated Risk Management		1	
70	Liquidity and Reserves Management-Strategies and Policies			2
81	The US Dollar Shortage in Global Banking and the International Policy Response	1		1
84	Illiquid Assets		1	
88	Portfolio Construction		1	
89	Portfolio Risk-Analytical Methods		1	
96	2023 Bank Failures, Preliminary lessons learnt for resolution	4		
97	Generative Artificial Intelligence in Finance-Risk Considerations	4		
98	Artificial intelligence and the economy-implications for central banks	4		
99	Interest Rate Risk Management by EME Banks	3		
100	Laying a robust macro-financial foundation for the future	5		
101	The Rise and Risks of Private Credit	4		
102	Monetary and fiscal policy-safeguarding stability and	3		
103	Regulating the Crypto Ecosystem-The Case of Unbacked Crypto Assets	4		
-	Basel Committee on Banking Supervision			6
-	Review of the Federal Reserves Supervision and Regulation of Silicon Valley Bank			6
-	The Credit Suisse CoCo Wipeout-Facts, Misperceptions, and Lessons for Financial Regulation			4
-	Artificial Intelligence and Bank Supervision			4
-	Financial Risk Management and Explainable, Trustworthy, Responsible AI			5
-	Artificial Intelligence Risk Management Framework			5

Reading	Reading Name	No. of LOS		
		New	Changes	Deleted
-	Climate-Related Risk Drivers and their Transmission Channels			4
-	Climate-Related Financial Risks-Measurement Methodologies			6
-	Principles for the Effective Management and Supervision of Climate-Related Financial Risks			4
-	The Crypto Ecosystem-Key Elements and Risks			3

## LOS WISE CHANGES

		New	Changes	Deleted
Subject	Reading No 2025	Reading Name	Details of Changes 25	Reading No 2024
Market Risk	1	Estimating Market Risk Measures-An Introduction and Overview		1
	2	Non-Parametric Approaches		2
	3	Parametric Approaches II-Extreme Value		3
	4	Backtesting VaR	1 LOS New 1 LOS Deleted	4
	5	VaR Mapping	1 LOS Changes	5
	6	Validation of Risk Management Models for Financial Institutions		
	7	Beyond Exceedance-Based Backtesting of Value-at-Risk Models		
	8	Correlation Basics-Definitions, Applications, and Terminology		7
	9	Empirical Properties of Correlation-How Do Correlations Behave in the Real World		8
	10	Financial Correlation Modeling-Bottom-Up Approaches		9
	11	Regression Hedging and Principal Component Analysis	1 LOS New Earlier Name - Empirical Approaches to Risk Metrics and Hedging	10
	12	Arbitrage Pricing with Term Structure Models	Earlier Name - The Science of Term Structure Models	11
	13	Expectations, Risk Premium, Convexity, and the Shape of the Term Structure	1 LOS New Earlier Name - The Evolution of Short Rates and the Shape of the Term Structure	12
	14	The Art of Term Structure Models-Drift		13
	15	The Art of Term Structure Models-Volatility and Distribution		14
	16	The Vasicek and Gauss Models		
	17	Volatility Smiles		15
	18	Fundamental Review of the Trading Book		16
	-	Basel Committee on Banking Supervision		6
Credit Risk	19	Fundamentals of Credit Risk		17
	20	Governance		18
	21	Credit Risk Management		19
	22	Capital Structure in Banks		20
	23	Introduction to Credit Risk Modeling and Assessment	1 LOS Changes	21
	24	Credit Scoring and Rating		22
	25	Credit Scoring and Retail Credit Risk Management		23
	26	Country Risk-Determinants, Measures, and Implications		24

Subject	Reading No 2025	Reading Name	Details of Changes 25	Reading No 2024
Credit Risk	27	Estimating Default Probabilities		25
	28	Credit Value at Risk		26
	29	Portfolio Credit Risk		27
	30	Credit Risk		29
	31	Credit Derivatives		30
	32	Derivatives		31
	33	Counterparty Risk and Beyond		32
	34	Netting, Close-out and Related Aspects		33
	35	Margin Collateral and Settlement		34
	36	Central Clearing		35
	37	Future Value and Exposure		36
	38	CVA		37
	39	The Evolution of Stress Testing Counterparty Exposures		38
	40	Structured Credit Risk		28
Operational Risk	41	An Introduction to Securitisation		39
	42	Introduction to Operational Risk and Resilience		40
	43	Risk Governance		41
	44	Risk Identification		42
	45	Risk Measurement and Assessment		43
	46	Risk Mitigation		44
	47	Risk Reporting		45
	48	Integrated Risk Management	1 LOS Changes	46
	49	Cyber-resilience-Range of practices		47
	50	Case Study-Cyberthreats and Information Security Risks		48
	51	Sound Management of Risks related to Money Laundering and Financing of Terrorism		49
	52	Case Study-Financial Crime and Fraud		50
	53	Guidance on Managing Outsourcing Risk		51
	54	Case Study-Third-Party Risk Management		52
	55	Case Study-Investor Protection and Compliance Risks in Investment Activities		53
	56	Supervisory Guidance on Model Risk Management		54
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	58	Stress Testing Banks		56
	59	Risk Capital Attribution and Risk-Adjusted Performance Measurement		57
	60	Range of Practices and Issues in Economic Capital Frameworks		58
	61	Capital Planning at Large Bank Holding Companies-Supervisory Expectations and Range of Current Practice		59

Subject	Reading No 2025	Reading Name	Details of Changes 25	Reading No 2024
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	63	Solvency, Liquidity, and Other Regulation After the Global Financial Crisis		61
	64	High-Level Summary of Basel III Reforms		62
	65	Basel III-Finalising Post-Crisis Reforms		63
Liquidity Risk	66	Liquidity Risk		64
	67	Liquidity and Leverage		65
	68	Early Warning Indicators		66
	69	The Investment Function in Financial-Services Management		67
	70	Liquidity and Reserves Management-Strategies and Policies	2 LOS Deleted	68
	71	Intraday Liquidity Risk Management		69
	72	Monitoring Liquidity		70
	73	The Failure Mechanics of Dealer Banks		71
	74	Liquidity Stress Testing		72
	75	Liquidity Risk Reporting and Stress Testing		73
	76	Contingency Funding Planning		74
	77	Managing and Pricing Deposit Services		75
	78	Managing Non-deposit Liabilities		76
	79	Repurchase Agreements and Financing		77
	80	Liquidity Transfer Pricing-A Guide to Better Practice		78
	81	The US Dollar Shortage in Global Banking and the International Policy Response	1 LOS New 1 LOS Deleted	79
	82	Covered Interest Parity Lost-Understanding the Cross-Currency Basis		80
83	Risk Management for Changing Interest Rates-Asset-Liability Management and Duration Techniques		81	
84	Illiquid Assets	1 LOS Changes	82	
Investment Risk	85	Factor Theory		83
	86	Factors		84
	87	Alpha and the Low-Risk Anomaly		85
	88	Portfolio Construction	1 LOS Changes	86
	89	Portfolio Risk-Analytical Methods	1 LOS Changes	87
	90	VaR and Risk Budgeting in Investment Management		88
	91	Risk Monitoring and Performance Measurement		89
	92	Portfolio Performance Evaluation		90
	93	Hedge Funds		91
	94	Performing Due Diligence on Specific Managers and Funds		92
	95	Predicting Fraud by Investment Managers		93

Subject	Reading No 2025	Reading Name	Details of Changes 25	Reading No 2024
Current Issues	96	2023 Bank Failures, Preliminary lessons learnt for resolution		
	97	Generative Artificial Intelligence in Finance-Risk Considerations		
	98	Artificial intelligence and the economy-implications for central banks		
	99	Interest Rate Risk Management by EME Banks		
	100	Laying a robust macro-financial foundation for the future		
	101	The Rise and Risks of Private Credit		
	102	Monetary and fiscal policy-safeguarding stability and trust		
	103	Regulating the Crypto Ecosystem-The Case of Unbacked Crypto Assets		
	104	Digital Resilience and Financial Stability		103
	-	Artificial Intelligence and Bank Supervision		96
	-	Artificial Intelligence Risk Management Framework		98
	-	Climate-Related Risk Drivers and their Transmission Channels		99
	-	Principles for the Effective Management and Supervision of Climate-Related Financial Risks		101
	-	Review of the Federal Reserves Supervision and Regulation of Silicon Valley Bank		94
	-	The Credit Suisse CoCo Wipeout-Facts, Misperceptions, and Lessons for Financial Regulation		95
	-	Financial Risk Management and Explainable, Trustworthy, Responsible AI		97
	-	Climate-Related Financial Risks-Measurement Methodologies		100
	-	The Crypto Ecosystem-Key Elements and Risks		102

## LOS WISE CHANGES

		New	Changes			
Reading No.	Reading Name	Learning Outcome		2025 LOS	2024 LOS	Changes
<b>Market Risk</b>						
1	Estimating Market Risk Measures-An Introduction and Overview	Estimate VaR using a historical simulation approach	1a	1a		
		Estimate VaR using a parametric approach for both normal and lognormal return distributions	1b	1b		
		Estimate the expected shortfall given profit and loss (P&L) or return data	1c	1c		
		Estimate risk measures by estimating quantiles	1d	1d		
		Evaluate estimators of risk measures by estimating their standard errors	1e	1e		
		Interpret quantile-quantile (QQ) plots to identify the characteristics of a distribution	1f	1f		
2	Non-Parametric Approaches	Apply the bootstrap historical simulation approach to estimate coherent risk measures	2a	2a		
		Describe historical simulation using non-parametric density estimation	2b	2b		
		Compare and contrast the age-weighted, the volatility-weighted, the correlation-weighted, and the filtered historical simulation approaches	2c	2c		
		Identify advantages and disadvantages of non-parametric estimation methods	2d	2d		
3	Parametric Approaches II-Extreme Value	Explain the importance and challenges of extreme values in risk management	3a	3a		
		Describe extreme value theory (EVT) and its use in risk management	3b	3b		
		Describe the peaks-over-threshold (POT) approach	3c	3c		
		Compare and contrast the generalized extreme value (GEV) and POT approaches to estimating extreme risks	3d	3d		
		Discuss the application of the generalized Pareto (GP) distribution in the POT approach	3e	3e		
		Explain the multivariate EVT for risk management	3f	3f		
4	Backtesting VaR	Describe backtesting and exceptions and explain the importance of backtesting VaR models	4a	4a		
		Explain the significant difficulties in backtesting a VaR model	4b	4b		
		Evaluate the accuracy of a VaR model based on exceptions or failure rates by using a model verification test	4c			
		Identify and describe Type I and Type II errors in the context of a backtesting process	4d	4d		
		Explain the need to consider conditional coverage in the backtesting framework	4e	4e		
		Describe the Basel rules for backtesting	4f	4f		
		Verify a model based on exceptions or failure rates		4c		
5	VaR Mapping	Explain the principles underlying VaR mapping and describe the mapping process	5a	5a		
		Explain how the mapping process captures general and specific risks, and calculate these risks in a portfolio given a set of primitive risk factors	5b	5b		
		Differentiate among the three methods for mapping portfolios of fixed-income securities	5c	5c		
		Summarize how to map a fixed-income portfolio into positions of standard instruments	5d	5d		
		Describe how mapping of risk factors can support stress testing	5e	5e		
		Explain how VaR can be calculated and used relative to a performance benchmark	5f	5f		reworded
		Describe the method of mapping forwards, forward rate agreements, interest rate swaps, and options	5g	5g		



Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
6	Validation of Risk Management Models for Financial Institutions	Describe some important considerations for a bank in assessing the conceptual soundness of a VaR model during the validation process	6a		
		Explain how to conduct sensitivity analysis for a VaR model, and describe the potential benefits and challenges of performing such an analysis	6b		
		Describe the challenges a financial institution could face when calculating confidence intervals for VaR	6c		
		Discuss the challenges in benchmarking VaR models and various approaches proposed to overcome them	6d		
7	Beyond Exceedance-Based Backtesting of Value-at-Risk Models	Identify the properties of an exceedance-based backtest that indicate a VaR model is accurate, and describe how these properties are reflected in a PIT-based backtest	7a		
		Explain how to derive probability integral transforms (PITs) in the context of validating a VaR model	7b		
		Describe how the shape of the distribution of PITs can be used as an indicator of the quality of a VaR model	7c		
		Describe backtesting using PITs, and compare the various goodness-of-fit tests that can be used to evaluate the distribution of PITs: the Kolmogorov-Smirnov test, the Anderson-Darling test, and the Cramér-von Mises test	7d		
8	Correlation Basics-Definitions, Applications, and Terminology	Describe financial correlation risk and the areas in which it appears in finance	8a	7a	
		Explain how correlation contributed to the global financial crisis of 2007-2009	8b	7b	
		Describe how correlation impacts the price of quanto options as well as other multi-asset exotic options	8c	7c	
		Describe the structure, uses, and payoffs of a correlation swap	8d	7d	
		Estimate the impact of different correlations between assets in the trading book on the VaR capital charge	8e	7e	
		Explain the role of correlation risk in market risk and credit risk	8f	7f	
		Explain how correlation risk relates to systemic and concentration risk	8g	7g	reworded
9	Empirical Properties of Correlation-How Do Correlations Behave in the	Describe how equity correlations and correlation volatilities behave throughout various economic states	9a	8a	
		Calculate a mean reversion rate using standard regression and calculate the corresponding autocorrelation	9b	8b	
		Identify the best-fit distribution for equity, bond, and default correlations	9c	8c	
10	Financial Correlation Modeling-Bottom-Up Approaches	Explain the purpose of copula functions and how they are applied in finance	10a	9a	
		Describe the Gaussian copula and explain how to use it to derive the joint probability of default of two assets	10b	9b	
		Summarize the process of finding the default time of an asset correlated to all other assets in a portfolio using the Gaussian copula	10c	9c	
11	Regression Hedging and Principal Component Analysis	Explain the drawbacks to using a DV01-neutral hedge for a bond position	11a	10a	
		Describe a regression hedge and explain how it can improve a standard DV01-neutral hedge	11b	10b	
		Calculate the regression hedge adjustment factor, beta	11c	10c	
		Calculate the face value of an offsetting position needed to carry out a regression hedge	11d	10d	
		Calculate the face value of multiple offsetting swap positions needed to carry out a two-variable regression hedge	11e	10e	
		Compare and contrast level and change regressions	11f	10f	
		Explain why and how a regression hedge differs from a hedge based on a reverse regression	11g		
		Describe principal component analysis and explain how it is applied to constructing a hedging portfolio	11h	10g	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
12	Arbitrage Pricing with Term Structure Models	Calculate the expected discounted value of a zero-coupon security using a binomial tree	12a	11a	
		Construct and apply an arbitrage argument to price a call option on a zero-coupon security using replicating portfolios	12b	11b	
		Define risk-neutral pricing and apply it to option pricing	12c	11c	
		Explain the difference between true and risk-neutral probabilities and apply this difference to interest rate drift	12d	11d	reworded
		Explain how the principles of arbitrage pricing of derivatives on fixed-income securities can be extended over multiple periods	12e	11e	
		Define option-adjusted spread (OAS) and apply it to security pricing	12f	11f	
		Describe the rationale behind the use of recombining trees in option pricing	12g	11g	
		Calculate the value of a constant-maturity Treasury swap, given an interest rate tree and the risk-neutral probabilities	12h	11h	
		Evaluate the advantages and disadvantages of reducing the size of the time steps on the pricing of derivatives on fixed-income securities	12i	11i	
		Evaluate the appropriateness of the Black-Scholes-Merton model when valuing derivatives on fixed-income securities	12j	11j	
13	Expectations, Risk Premium, Convexity, and the Shape of the Term Structure	Explain the role of interest rate expectations in determining the shape of the term structure	13a	12a	
		Apply a risk-neutral interest rate tree to assess the effect of volatility on the shape of the term structure	13b	12b	
		Estimate the convexity effect using Jensen's inequality	13c	12c	
		Identify the components into which the return on a bond can be decomposed, and calculate the expected return on a bond for a risk-averse investor	13d		
		Evaluate the impact of changes in maturity, yield, and volatility on the convexity of a security		12d	
		Calculate the price and return of a zero-coupon bond incorporating a risk premium		12e	
14	The Art of Term Structure Models-Drift	Construct and describe the effectiveness of a short-term interest rate tree assuming normally distributed rates, both with and without drift	14a	13a	
		Calculate the short-term rate change and standard deviation of the rate change using a model with normally distributed rates and no drift	14b	13b	
		Describe methods for addressing the possibility of negative short-term rates in term structure models	14c	13c	
		Construct a short-term rate tree under the Ho-Lee Model with time-dependent drift	14d	13d	
		Describe uses and benefits of the arbitrage-free models and assess the issue of fitting models to market prices	14e	13e	
		Describe the process of constructing a simple and recombining tree for a short-term rate under the Vasicek Model with mean reversion	14f	13f	
		Calculate the Vasicek Model rate change, standard deviation of the rate change, expected rate in T years, and half-life	14g	13g	
		Describe the effectiveness of the Vasicek Model	14h	13h	
15	The Art of Term Structure Models-Volatility and Distribution	Describe the short-term rate process under a model with time-dependent volatility	15a	14a	
		Calculate the short-term rate change and determine the behavior of the standard deviation of the rate change using a model with time-dependent volatility	15b	14b	
		Assess the efficacy of time-dependent volatility models	15c	14c	
		Describe the short-term rate process under the Cox-Ingersoll-Ross (CIR) and lognormal models	15d	14d	
		Calculate the short-term rate change and describe the basis point volatility using the CIR and lognormal models	15e	14e	
		Describe lognormal models with deterministic drift and mean reversion	15f	14f	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
16	The Vasicek and Gauss Models	Describe the structure of the Gauss+ model and discuss the implications of this structure for the model's ability to replicate empirically observed interest rate dynamics	16a		
		Compare and contrast the dynamics, features, and applications of the Vasicek model and the Gauss+ model	16b		
		Calculate changes in the short-term, medium-term, and long-term interest rate factors under the Gauss+ model	16c		
		Explain how the parameters of the Gauss+ model can be estimated from empirical data	16d		
17	Volatility Smiles	Describe a volatility smile and volatility skew	17a	15a	
		Explain the implications of put-call parity on the implied volatility of call and put options	17b	15b	
		Compare the shape of the volatility smile (or skew) to the shape of the implied distribution of the underlying asset price and to the pricing of options on the underlying asset	17c	15c	
		Describe characteristics of foreign exchange rate distributions and their implications on option prices and implied volatility	17d	15d	
		Describe the volatility smile for equity options and foreign currency options and provide possible explanations for its shape	17e	15e	
		Describe alternative ways of characterizing the volatility smile	17f	15f	
		Describe volatility term structures and volatility surfaces and how they may be used to price options	17g	15g	
		Explain the impact of the volatility smile on the calculation of an option's Greek letter risk measures	17h	15h	
		Explain the impact of a single asset price jump on a volatility smile	17i	15i	
18	Fundamental Review of the Trading Book	Describe the changes to the Basel framework for calculating market risk capital under the Fundamental Review of the Trading Book (FRTB) and the motivations for these changes	18a	16a	
		Compare the various liquidity horizons proposed by the FRTB for different asset classes and explain how a bank can calculate its expected shortfall using the various horizons	18b	16b	
		Explain the FRTB revisions to Basel regulations in the following areas: - Classification of positions in the trading book compared to the banking book - Backtesting, profit and loss attribution, credit risk, and securitizations	18c	16c	
		Explain the following lessons on VaR implementation: time horizon over which VaR is estimated, the recognition of time-varying volatility in VaR risk factors, and VaR backtesting		6a	
6	Basel Committee on Banking Supervision	Describe exogenous and endogenous liquidity risk and explain how they might be integrated into VaR models		6b	
		Compare VaR, expected shortfall, and other relevant risk measures		6c	
		Compare unified and compartmentalized risk measurement		6d	
		Compare the results of research on top-down and bottom-up risk aggregation methods		6e	
		Describe the relationship between leverage, market value of asset, and VaR within an active balance sheet management framework		6f	
<b>Credit Risk</b>					
19	Fundamentals of Credit Risk	Define credit risk and explain how it arises using examples	19a	17a	
		Explain the differences between insolvency, default, and bankruptcy	19b	17b	reworded
		Identify and describe transactions that generate credit risk	19c	17c	
		Describe the entities that are exposed to credit risk and explain circumstances under which exposure occurs	19d	17d	
		Discuss the motivations for managing or taking on credit risk	19e	17e	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
20	Governance	Define risk management responsibilities in an organization and explain the three lines of defense framework for effective risk management and control	20a	18a	
		Explain the processes that lead to risk taking including credit origination, credit risk assessment, and credit approval processes	20b	18b	
		Discuss the following key principles underlying best practice for the governance system of credit risk: Guidelines, Skills, Limits, and Oversight	20c	18c	
		Describe the most common parameters of a credit-sensitive transaction	20d	18d	
		Describe the roles of the credit committee in an organization	20e	18e	
21	Credit Risk Management	Describe key elements of an effective lending or financing policy	21a	19a	
		Explain the importance and challenges of setting exposure and concentration limits	21b	19b	
		Describe the scope and allocation processes of a bank's credit facility and explain bank-specific policies and actions to reduce credit risk	21c	19c	
		Discuss factors that should be considered during the credit asset classification process	21d	19d	
		Describe and explain loan loss provisions and loan loss reserves	21e	19e	
		Identify and explain the components of expected loss and differentiate between expected loss and unexpected loss	21f	19f	reworded
		Explain the requirements for estimating expected loss under IFRS 9	21g	19g	
		Describe a workout procedure for loss assets and compare the following two approaches used to manage loss assets: retaining loss assets and writing off loss assets	21h	19h	
		Explain the components of credit risk analysis	21i	19i	
		Explain the components of credit risk management capacity, and identify key questions that the board of directors of a bank should ask	21j	19j	reworded
22	Capital Structure in Banks	Evaluate a bank's economic capital relative to its level of credit risk	22a	20a	
		Identify and describe important factors used to calculate economic capital for credit risk: probability of default, exposure, and loss rate	22b	20b	
		Define and calculate expected loss (EL)	22c	20c	
		Define and calculate unexpected loss (UL)	22d	20d	
		Estimate the variance of default probability assuming a binomial distribution	22e	20e	
		Calculate UL for a credit asset portfolio and the UL contribution of each asset under various scenarios of portfolio composition, asset characteristics and size	22f	20f	
		Describe how economic capital is derived	22g	20g	
		Explain how the credit loss distribution is modeled	22h	20h	
		Describe challenges to quantifying credit risk	22i	20i	
23	Introduction to Credit Risk Modeling and Assessment	Explain the capital adequacy, asset quality, management, earnings, and liquidity (CAMEL) system used for evaluating the financial condition of a bank	23a	21a	
		Describe quantitative measurements and factors of credit risk, including probability of default, loss given default, exposure at default, expected loss, and time horizon	23b	21b	
		Estimate risk-weighted assets and capital adequacy ratio of a financial institution	23c		
		Describe the judgmental approaches, empirical models, and financial models to predict default	23d	21d	
		Apply the Merton model to calculate default probability and the distance to default and describe the limitations of using the Merton model	23e	21e	
		Compare and contrast different approaches to credit risk modeling, such as those related to the Merton model, Credit Risk Plus (CreditRisk+), CreditMetrics, and the Moody's-KMV model	23f	21f	
		Apply risk-adjusted return on capital (RAROC) to measure the performance of a loan	23g	21g	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
24	Credit Scoring and Rating	Compare the credit scoring system to the credit rating system in assessing credit quality and describe the different types of each system	24a	22a	
		Differentiate between through-the-cycle credit rating system and point-in-time credit rating system	24b	22b	reworded
		Describe the process for developing credit risk scoring and rating models	24c	22c	
		Describe rating agencies' assignment methodologies for issue and issuer ratings, and identify the main criticisms of the credit rating agencies' ratings	24d	22d	
25	Credit Scoring and Retail Credit Risk Management	Analyze the credit risks and other risks generated by retail banking	25a	23a	
		Explain the differences between retail credit risk and corporate credit risk	25b	23b	
		Discuss the "dark side" of retail credit risk and the measures that attempt to address the problem	25c	23c	
		Define and describe credit risk scoring model types, key variables, and applications	25d	23d	
		Discuss the key variables in a mortgage credit assessment and describe the use of cutoff scores, default rates, and loss rates in a credit scoring model	25e	23e	
		Discuss the measurement and monitoring of a scorecard performance including the use of cumulative accuracy profile (CAP) and the accuracy ratio (AR) techniques	25f	23f	
		Describe the customer relationship cycle and discuss the trade-off between creditworthiness and profitability	25g	23g	
		Discuss the benefits of risk-based pricing of financial services	25h	23h	
26	Country Risk-Determinants, Measures, and Implications	Identify and explain the different sources of country risk	26a	24a	
		Evaluate the methods for measuring country risk and discuss the limitations of using those methods	26b	24b	
		Compare and contrast foreign currency defaults and local currency defaults	26c	24c	
		Explain the consequences of a country's default	26d	24d	
		Discuss measures of sovereign default risk and describe components of a sovereign rating	26e	24e	
		Describe the shortcomings of the sovereign rating systems of rating agencies	26f	24f	
		Compare the use of credit ratings, market-based credit default spreads, and CDS spreads in predicting default	26g	24g	
27	Estimating Default Probabilities	Compare agencies' ratings to internal credit rating systems	27a	25a	
		Describe linear discriminant analysis (LDA), define the Altman's Z-score and its usage, and apply LDA to classify a sample of firms by credit quality	27b	25b	
		Describe the relationship between borrower rating and probability of default	27c	25c	
		Describe a rating migration matrix and calculate the probability of default, cumulative probability of default, and marginal probability of default	27d	25d	
		Define the hazard rate and use it to define probability functions for default time as well as to calculate conditional and unconditional default probabilities	27e	25e	
		Describe recovery rates and their dependencies on default rates	27f	25f	
		Define a credit default swap (CDS) and explain its mechanics including the obligations of both the default protection buyer and the default protection seller	27g	25g	
		Describe CDS spreads and explain how CDS spreads can be used to estimate hazard rates	27h	25h	
		Define and explain CDS-bond basis	27i	25i	
		Compare default probabilities calculated from historical data with those calculated from credit yield spreads	27j	25j	
		Describe the difference between real-world and risk-neutral default probabilities and determine which one to use in the analysis of credit risk	27k	25k	
Calculate the value of a firm's debt and equity, the volatility of firm value, and the volatility of firm equity using the Merton model	27l	25l	reworded		

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
27	Estimating Default Probabilities	Calculate distance to default and default probability using the Merton	27m	25m	reworded
		Assess the quality of the default probabilities produced by the Merton model, the Moody's KMV model, and the Kamakura model	27n	25n	
28	Credit Value at Risk	Compare market risk value at risk (VaR) with credit VaR in terms of definition, time horizon, and tools for measuring them	28a	26a	reworded
		Define and calculate Credit VaR	28b	26b	
		Describe the use of rating transition matrices for calculating credit VaR	28c	26c	
		Describe the application of the Vasicek's model to estimate capital requirements under the Basel II internal-ratings-based (IRB) approach	28d	26d	
		Explain the Vasicek's model, Credit Risk Plus (CreditRisk+) model, and the CreditMetrics ways of estimating the probability distribution of losses arising from defaults as well as modeling the default correlation	28e	26e	
		Define credit spread risk and assess its impact on calculating credit VaR	28f	26f	
		Define and calculate default correlation for credit portfolios	29a	27a	
29	Portfolio Credit Risk	Identify drawbacks in using the correlation-based credit portfolio framework	29b	27b	reworded
		Assess the impact of correlation on a credit portfolio and its Credit VaR	29c	27c	
		Describe the use of a single factor model to measure portfolio credit risk, including the impact of correlation	29d	27d	
		Define beta and calculate the asset return correlation of any pair of firms using the single factor model	29e	27e	
		Estimate the probability of a joint default of any pair of credits and the default correlation between any pair of credits using the single factor model	29f	27f	
		Describe how Credit VaR can be calculated using a simulation of joint defaults	29g	27g	
		Assess the effect of granularity on Credit VaR	29h	27h	
		30	Credit Risk	Assess the credit risks of derivatives	
Define credit valuation adjustment (CVA) and debt valuation adjustment (DVA)	30b			29b	
Calculate the probability of default using credit spreads	30c			29c	
Describe, compare, and contrast various credit risk mitigants and their role in credit analysis	30d			29d	
Describe the significance of estimating default correlation for credit portfolios and distinguish between reduced form and structural default correlation models	30e			29e	
Describe the Gaussian copula model for time to default and calculate the probability of default using the one-factor Gaussian copula model	30f			29f	
Describe how to estimate credit VaR using the Gaussian copula and the CreditMetrics approach	30g			29g	
31	Credit Derivatives	Describe a credit derivative, credit default swap (CDS), total return swap, and collateralized debt obligation (CDO)	31a	30a	reworded
		Explain how to account for credit risk exposure in valuing a CDS	31b	30b	
		Identify the default probabilities used to value a CDS	31c	30c	
		Evaluate the use of credit indices and fixed coupons in pricing CDS transactions	31d	30d	
		Define CDS forwards and CDS options	31e	30e	
		Describe the process of valuing a synthetic CDO using the spread payments approach and the Gaussian copula model of time to default approach	31f	30f	
		Define the two measures of implied correlation: compound (tranche) correlation and base correlation	31g	30g	
		Discuss alternative approaches used to estimate default correlation	31h	30h	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
32	Derivatives	Define derivatives and explain how derivative transactions create counterparty credit risk	32a	31a	
		Compare and contrast exchange-traded derivatives and over-the-counter (OTC) derivatives, and discuss the features of their markets	32b	31b	
		Describe the process of clearing a derivative transaction	32c	31c	
		Identify the participants and describe the use of collateralization in the derivatives market	32d	31d	
		Define the International Swaps and Derivatives Association (ISDA) Master Agreement, the risk-mitigating features it provides, and the default events it covers	32e	31e	
		Describe the features and use of credit derivatives and discuss potential risks they may create	32f	31f	
		Describe central clearing of OTC derivatives and discuss the roles, mandate, advantages, and disadvantages of the central counterparty (CCP)	32g	31g	
		Explain the margin requirements for both centrally-cleared and non-centrally-cleared derivatives	32h	31h	
		Define special purpose vehicles (SPVs), derivatives product companies (DPCs), monolines, and credit derivatives product companies (CDPCs) and describe the limitations of using them as risk mitigating methods	32i	31i	
		Describe the approaches used and the challenges faced in modeling derivatives risk	32j	31j	
33	Counterparty Risk and Beyond	Describe counterparty risk and differentiate it from lending risk	33a	32a	
		Describe transactions that carry counterparty risk and explain how counterparty risk can arise in each transaction	33b	32b	
		Identify and describe institutions that take on significant counterparty risk	33c	32c	
		Describe credit exposure, credit migration, recovery, mark-to-market, replacement cost, default probability, loss given default, and the recovery rate	33d	32d	
		Describe credit value adjustment (CVA) and compare the use of CVA and credit limits in evaluating and mitigating counterparty risk	33e	32e	
		Identify and describe the different ways institutions can quantify, manage, and mitigate counterparty risk	33f	32f	
		Identify and explain the costs of an OTC derivative	33g	32g	
		Explain the components of the X-Value Adjustment (xVA) term	33h	32h	
34	Netting, Close-out and Related Aspects	Explain the purpose of an International Swaps and Derivatives Association (ISDA) master agreement	34a	33a	
		Summarize netting and close-out procedures (including multilateral netting), explain their advantages and disadvantages, and describe how they fit into the framework of the ISDA master agreement	34b	33b	
		Describe the effectiveness of netting in reducing credit exposure under various scenarios	34c	33c	
		Describe the mechanics of termination provisions and trade compressions and explain their advantages and disadvantages	34d	33d	
		Provide examples of trade compression of derivative positions, calculate net notional exposure amount, and identify the party holding the net contract position in a trade compression	34e	33e	
		Identify and describe termination events and discuss their potential effects on parties to a transaction	34f	33f	
35	Margin Collateral and Settlement	Describe the rationale for collateral management	35a	34a	
		Describe the terms of a collateral agreement and features of a credit support annex (CSA) within the ISDA Master Agreement including threshold, initial margin, minimum transfer amount and rounding, haircuts, credit quality, and credit support amount	35b	34b	
		Calculate the credit support amount (margin) under various scenarios	35c	34c	
		Describe the role of a valuation agent	35d	34d	



Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
35	Margin Collateral and Settlement	Describe the mechanics of collateral and the types of collateral that are typically used	35e	34e	
		Explain the process for the reconciliation of collateral disputes	35f	34f	
		Explain the features of a collateralization agreement	35g	34g	
		Differentiate between a two-way and one-way CSA agreement and describe how collateral parameters can be linked to credit quality	35h	34h	
		Explain aspects of collateral including funding, rehypothecation, and segregation	35i	34i	
		Explain how market risk, operational risk, and liquidity risk (including funding liquidity risk) can arise through collateralization	35j	34j	
		Describe the various regulatory capital requirements	35k	34k	
		36	Central Clearing	Define a central counterparty (CCP) and describe the mechanics of central clearing	36a
Explain the concept of novation under central clearing	36b			35b	
Define netting, multilateral offset, and compression and provide examples of each	36c			35c	
Describe the application and estimation of margin and default funds under central clearing	36d			35d	
Discuss the risks faced by a CCP and the ways it manages its exposures	36e			35e	
Provide examples of a loss waterfall	36f			35f	
Explain the different methods of absorbing losses and managing the default of one or more members of a CCP	36g			35g	reworded
Compare bilateral and central clearing	36h			35h	
37	Future Value and Exposure	Compare initial margin and default fund requirements for clearing members in relation to loss coverage, cost of clearing, and moral hazard	36i	35i	
		Describe the advantages and disadvantages of central clearing	36j	35j	
		Describe and calculate the following metrics for credit exposure: expected mark-to-market, expected exposure, potential future exposure, expected positive exposure and negative exposure, effective expected positive exposure, and maximum exposure	37a	36a	
		Compare the characterization of credit exposure to VaR methods and describe additional considerations used in the determination of credit exposure	37b	36b	
		Identify factors that affect the calculation of the credit exposure profile and summarize the impact of collateral on exposure	37c	36c	
		Identify typical credit exposure profiles for various derivative contracts and combination profiles	37d	36d	
		Explain how payment frequencies and exercise dates affect the exposure profile of various securities	37e	36e	
		Explain the general impact of aggregation on exposure, and the impact of aggregation on exposure when there is correlation between transaction values	37f	36f	
		Describe the differences between funding exposure and credit exposure	37g	36g	
		Explain the impact of collateralization on exposure and assess the risk associated with the remarking period, threshold, and minimum transfer amount	37h	36h	
38	CVA	Assess the impact of collateral on counterparty risk and funding, with and without segregation or rehypothecation	37i	36i	
		Explain the motivation for and the challenges of pricing counterparty risk	38a	37a	
		Describe credit value adjustment (CVA)	38b	37b	
		Calculate CVA and CVA as a spread with no wrong-way risk, netting, or collateralization	38c	37c	
		Evaluate the impact of changes in the credit spread and recovery rate assumptions on CVA	38d	37d	
Describe debt value adjustment (DVA) and bilateral CVA (BCVA)	38e	37e			



Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
38	CVA	Explain the differences between unilateral CVA (UCVA) and BCVA, and between unilateral DVA (UDVA) and BCVA	38f	37f	reworded
		Calculate DVA, BCVA, and BCVA as a spread	38g	37g	
		Explain how netting can be incorporated into the CVA calculation	38h	37h	
		Define and calculate incremental CVA and marginal CVA and explain how to convert CVA into a running spread	38i	37i	
		Explain the impact of incorporating collateralization into the CVA calculation, including the impact of margin period of risk, thresholds, and initial margins	38j	37j	
		Describe wrong-way risk and contrast it with right-way risk	38k	37k	
		Identify examples of wrong-way risk and examples of right-way risk	38l	37l	
		Discuss the impact of collateral on wrong-way risk	38m	37m	
		Identify examples of wrong-way collateral	38n	37n	
		Discuss the impact of wrong-way risk on central counterparties (CCPs)	38o	37o	
		Describe the various wrong-way modeling methods including hazard rate approaches, structural approaches, parametric approaches, and jump approaches	38p	37p	
		Explain the implications of central clearing on wrong-way risk	38q	37q	
		39	The Evolution of Stress Testing Counterparty Exposures	Differentiate among current exposure, peak exposure, expected exposure, and expected positive exposure	39a
Explain the treatment of counterparty credit risk (CCR) both as a credit risk and as a market risk and describe its implications for trading activities and risk management for a financial institution	39b			38b	
Describe a stress test that can be performed on a loan portfolio, and on a derivative portfolio	39c			38c	
Differentiate between stressed expected loss and stress loss of a credit portfolio, and calculate the stress loss on a loan portfolio and the stress loss on a derivative portfolio	39d			38d	
Describe a stress test that can be performed on CVA	39e			38e	
Calculate the stressed CVA and the stress loss on CVA	39f			38f	
Calculate the DVA and explain how stressing DVA enters into aggregating stress tests of CCR	39g			38g	
Describe the common pitfalls in stress testing CCR	39h			38h	
40	Structured Credit Risk	Describe common types of structured products	40a	28a	
		Describe tranching and the distribution of credit losses in a securitization	40b	28b	
		Describe a waterfall structure in a securitization	40c	28c	
		Identify the key participants in the securitization process and describe conflicts of interest that can arise in the process	40d	28d	
		Calculate and evaluate one or two iterations of interim cashflows in a three-tiered securitization structure	40e	28e	reworded
		Describe the treatment of excess spread in a securitization structure and estimate the value of the overcollateralization account at the end of each year	40f	28f	
		Explain the tests on the excess spread that a custodian must go through at the end of each year to determine the cash flow to the overcollateralization account and to the equity noteholders	40g	28g	
		Describe a simulation approach to calculating credit losses for different tranches in a securitization	40h	28h	
		Explain how the default probabilities and default correlations affect the credit risk in a securitization	40i	28i	
		Explain how default sensitivities for tranches are measured	40j	28j	
		Describe risk factors that impact structured products	40k	28k	
Define implied correlation and describe how it can be measured	40l	28l			
Identify the motivations for using structured credit products	40m	28m			

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
41	An Introduction to Securitisation	Define securitization, describe the securitization process, and explain the role of participants in the process	41a	39a	
		Explain the terms over-collateralization, first-loss piece, equity piece, and cash waterfall within the securitization process	41b	39b	
		Analyze the differences in the mechanics of issuing securitized products using a trust versus a special purpose vehicle (SPV) and distinguish between the three main SPV structures: amortizing, revolving, and master trust	41c	39c	
		Explain the reasons for and the benefits of undertaking securitization	41d	39d	
		Describe and assess the various types of credit enhancements	41e	39e	
		Explain the various performance analysis tools for securitized structures and identify the asset classes they are most applicable to	41f	39f	
		Define and calculate the delinquency ratio, default ratio, monthly payment rate (MPR), debt service coverage ratio (DSCR), the weighted average coupon (WAC), the weighted average maturity (WAM), and the weighted average life (WAL) for relevant securitized structures	41g	39g	
		Explain the prepayment forecasting methodologies and calculate the constant prepayment rate (CPR) and the Public Securities Association (PSA) rate	41h	39h	
<b>Operational Risk</b>					
42	Introduction to Operational Risk and Resilience	Describe an operational risk management framework and assess the types of risks that can fall within the scope of such a framework	42a	40a	
		Describe the seven Basel II event risk categories and identify examples of operational risk events in each category	42b	40b	
		Explain characteristics of operational risk exposures and operational loss events, and challenges that can arise in managing operational risk due to these characteristics	42c	40c	
		Describe operational resilience, identify the elements of an operational resilience framework, and summarize regulatory expectations for operational resilience	42d	40d	
43	Risk Governance	Explain the Basel regulatory expectations for the governance of an operational risk management framework	43a	41a	
		Describe and compare the roles of different committees and the board of directors in operational risk governance	43b	41b	
		Describe the “three lines of defense” model for operational risk governance and compare roles and responsibilities for each line of defense	43c	41c	
		Explain best practices and regulatory expectations for the development of a risk appetite for operational risk and for a strong risk culture	43d	41d	
44	Risk Identification	Discuss different top-down and bottom-up approaches and tools for identifying operational risks	44a	42a	reworded
		Describe best practices in extreme risk identification for operational risk	44b	42b	reworded
		Describe and apply an operational risk taxonomy and give examples of different taxonomies of operational risks	44c	42c	
		Describe and apply the Level 1, 2, and 3 categories in the Basel operational risk taxonomy	44d	42d	
45	Risk Measurement and Assessment	Explain best practices for the collection of operational loss data and reporting of operational loss incidents, including regulatory expectations	45a	43a	
		Explain operational risk-assessment processes and tools, including risk control self-assessments (RCSAs), likelihood assessment scales, and heatmaps	45b	43b	
		Describe the differences among key risk indicators (KRIs), key performance indicators (KPIs), and key control indicators (KCIs)	45c	43c	
		Describe the use of factor-based models that quantitatively assess operational risk, and explain the application of the Swiss cheese model and the bowtie tool	45d	43d	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
45	Risk Measurement and Assessment	Estimate operational risk exposures based on the fault tree model given probability assumptions	45e	43e	
		Describe approaches used to determine the level of operational risk capital for economic capital purposes, including their application and limitations	45f	43f	
		Describe and explain the steps to ensure a strong level of operational resilience, and to test the operational resilience of important business services	45g	43g	
46	Risk Mitigation	Explain and compare different ways firms address their operational risk exposures	46a	44a	
		Compare different types of internal controls and provide examples of each type of internal control	46b	44b	
		Describe control automation, internal control design, and control testing, including risks and challenges that arise in these processes and ways to make them more effective	46c	44c	
		Describe methods to improve the quality of an operational process and reduce the potential for human error	46d	44d	
		Explain how operational risk can arise with new products, new business initiatives, or mergers and acquisitions, and describe ways to mitigate these risks	46e	44e	
		Identify and describe approaches firms should use to mitigate the impact of operational risk events	46f	44f	
		Describe methods for the transfer of operational risks and the management of reputational risk, and assess their effectiveness in different situations	46g	44g	
47	Risk Reporting	Identify roles and responsibilities of different organizational committees, and explain how risk reports should be developed for each committee or business function	47a	45a	
		Describe components of operational risk reports and explain best practices in operational risk reporting	47b	45b	
		Describe challenges to reporting operational risks, including characteristics of operational loss data, and explain ways to overcome these challenges	47c	45c	
		Explain best practices for reporting risk exposures to regulators and external stakeholders	47d	45d	
48	Integrated Risk Management	Describe the role of risk governance, risk appetite, and risk culture in the context of an enterprise risk management (ERM) framework	48a	46a	
		Explain and differentiate between regulatory capital and economic capital requirements as prescribed in Basel regulations	48b		
		Describe the elements of a sound stress-testing framework for financial institutions and explain best practices for stress testing	48c	46c	reworded
49	Cyber-resilience-Range of practices	Explain challenges and considerations when developing and implementing models used in stress testing operational risk	48d	46d	
		Define cyber-resilience and compare recent regulatory initiatives in the area of cyber-resilience	49a	47a	
		Describe current practices by banks and supervisors in the governance of a cyber-risk management framework, including roles and responsibilities	49b	47b	
		Explain methods for supervising cyber-resilience, testing and incident response approaches, and cybersecurity and resilience metrics	49c	47c	
		Explain and assess current practices for the sharing of cybersecurity information between different types of institutions	49d	47d	
50	Case Study-Cyberthreats and Information Security Risks	Describe practices for the governance of risks of interconnected third-party service providers	49e	47e	
		Provide examples of cyber threats and information security risks, and describe frameworks and best practices for managing cyber risks	50a	48a	
		Describe lessons learned from the Equifax case study	50b	48b	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
51	Sound Management of Risks related to Money Laundering and Financing	Explain best practices recommended by the Basel committee for the assessment, management, mitigation, and monitoring of money laundering and financing of terrorism (ML/FT) risks	51a	49a	
		Describe recommended practices for the acceptance, verification, and identification of customers at a bank	51b	49b	
		Explain practices for managing ML/FT risks in a group-wide and cross-border context	51c	49c	
52	Case Study- Financial Crime and Fraud	Describe elements of a control framework to manage financial fraud risk and money laundering risk	52a	50a	
		Summarize the regulatory findings and describe the lessons learned from the USAA case study	52b	50b	
53	Guidance on Managing Outsourcing Risk	Explain how risks can arise through outsourcing activities to third-party service providers and describe elements of an effective program to manage outsourcing risk	53a	51a	
		Explain how financial institutions should perform due diligence on third-party service providers	53b	51b	
		Describe topics and provisions that should be addressed in a contract with a third-party service provider	53c	51c	
54	Case Study- Third-Party Risk Management	Explain how risks related to the use of third parties can arise and describe characteristics of an effective third-party risk management framework	54a	52a	
		Describe the lessons learned from the presented case studies	54b	52b	
55	Case Study- Investor Protection and Compliance	Summarize important regulations designed to protect investors in financial instruments, including MiFiD, MiFiD II, and Dodd-Frank	55a	53a	
		Describe lessons learned from the case studies involving violations of investor protection or compliance regulations	55b	53b	reworded
56	Supervisory Guidance on Model Risk Management	Describe model risk and explain how it can arise in the implementation of a model	56a	54a	
		Describe elements of an effective model risk management process	56b	54b	
		Explain best practices for the development and implementation of models	56c	54c	
		Describe elements of a strong model validation process and challenges to an effective validation process	56d	54d	
57	Case Study- Model Risk and Model Validation	Define a model and describe different ways that financial institutions can become exposed to model risk	57a	55a	
		Describe the role of the model risk management function and explain best practices in the model risk management and validation processes	57b	55b	
		Describe lessons learned from the three case studies involving model risk	57c	55c	
58	Stress Testing Banks	Describe the evolution of the stress testing process and compare the methodologies of historical European Banking Association (EBA), Comprehensive Capital Analysis and Review (CCAR), and Supervisory Capital Assessment Program (SCAP) stress tests	58a	56a	
		Explain challenges in designing stress test scenarios, including the problem of coherence in modeling risk factors	58b	56b	
		Explain challenges in modeling a bank's revenues, losses, and its balance sheet over a stress test horizon period	58c	56c	
59	Risk Capital Attribution and Risk-Adjusted Performance Measurement	Define, compare, and contrast risk capital, economic capital, and regulatory capital and explain methods and motivations for using economic capital approaches to allocate risk capital	59a	57a	
		Describe the RAROC (risk-adjusted return on capital) methodology and its use in capital budgeting	59b	57b	
		Calculate and interpret the RAROC for a project, loan, or loan portfolio and use RAROC to compare business unit performance	59c	57c	reworded
		Explain challenges that arise when using RAROC for performance measurement, including choosing a time horizon, measuring default probability, and choosing a confidence level	59d	57d	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
59	Risk Capital Attribution and Risk-Adjusted Performance Measurement	Calculate the hurdle rate and apply this rate in making business decisions using RAROC	59e	57e	
		Calculate the adjusted RAROC for a project to determine its viability	59f	57f	reworded
		Explain challenges in modeling diversification benefits, including aggregating a firm's risk capital and allocating economic capital to different business lines	59g	57g	
		Explain best practices in implementing an approach that uses RAROC to allocate economic capital	59h	57h	
60	Range of practices and issues in economic capital frameworks	Within the economic capital implementation framework, describe the challenges that appear in: - Defining and calculating risk measures - Risk aggregation - Validation of models - Dependency modeling in credit risk - Evaluating counterparty credit risk - Assessing interest rate risk in the banking book	60a	58a	
		Describe the recommendations by the Bank for International Settlements (BIS) that supervisors should consider to make effective use of internal risk measures, such as economic capital, that are not designed for regulatory purposes	60b	58b	
		Explain benefits and impacts of using an economic capital framework within the following areas: - Credit portfolio management - Risk-based pricing - Customer profitability analysis - Management incentives	60c	58c	
		Describe best practices and assess key concerns for the governance of an economic capital framework	60d	58d	
61	Capital Planning at Large Bank Holding Companies- Supervisory Expectations and Range of Current Practice	Describe the Federal Reserve's Capital Plan Rule and explain the seven principles of an effective capital adequacy process for bank holding companies (BHCs) subject to the Capital Plan Rule	61a	59a	
		Describe practices that can result in a strong and effective capital adequacy process for a BHC in the following areas: - Risk identification - Internal controls, including model review and validation - Corporate governance - Capital policy, including setting of goals and targets and contingency planning - Stress testing and stress scenario design - Estimating losses, revenues, and expenses, including quantitative and qualitative methodologies - Assessing the impact of capital adequacy, including risk-weighted asset (RWA) and balance sheet projections	61b	59b	
62	Capital Regulation Before the Global Financial Crisis	Explain the motivations for introducing the Basel regulations, including key risk exposures addressed, and explain the reasons for revisions to Basel regulations over time	62a	60a	
		Explain the calculation of risk-weighted assets and the capital requirement per the original Basel I guidelines	62b	60b	
		Describe measures introduced in the 1995 and 1996 amendments, including guidelines for netting of credit exposures and methods for calculating market risk capital for assets in the trading book	62c	60c	
		Describe changes to the Basel regulations made as part of Basel II, including the three pillars	62d	60d	
		Compare the standardized internal ratings-based (IRB) approach, the foundation IRB approach, and the advanced IRB approach for the calculation of credit risk capital under Basel II	62e	60e	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
62	Capital Regulation Before the Global Financial Crisis	Calculate credit risk capital under Basel II utilizing the IRB approach	62f	60f	
		Compare the basic indicator approach, the standardized approach, and the advanced measurement approach for the calculation of operational risk capital under Basel II	62g	60g	
		Summarize elements of the Solvency II capital framework for insurance companies	62h	60h	
63	Solvency, Liquidity, and Other Regulation After the Global Financial Crisis	Describe and calculate the stressed VaR introduced in Basel 25 and calculate the market risk capital charge	63a	61a	
		Explain the process of calculating the incremental risk capital charge for positions held in a bank's trading book	63b	61b	
		Describe the comprehensive risk (CR) capital charge for portfolios of positions that are sensitive to correlations between default risks	63c	61c	
		Define in the context of Basel III and calculate where appropriate: - Tier 1 capital and its components - Tier 2 capital and its components - Required Tier 1 equity capital, total Tier 1 capital, and total capital	63d	61d	
		Describe the motivations for and calculate the capital conservation buffer and the countercyclical buffer, including special rules for globally systemically important banks (G-SIBs)	63e	61e	
		Describe and calculate ratios intended to improve the management of liquidity risk, including the required leverage ratio, the liquidity coverage ratio, and the net stable funding ratio	63f	61f	
		Describe the mechanics of contingent convertible bonds (CoCos) and explain the motivations for banks to issue them	63g	61g	
		Provide examples of legislative and regulatory reforms that were introduced after the 2007-2009 financial crisis	63h	61h	
64	High-level summary of Basel III reforms	Explain the motivations for revising the Basel III framework and the goals and impacts of the December 2017 reforms to the Basel III framework	64a	62a	
		Summarize the December 2017 revisions to the Basel III framework in the following areas: - The standardized approach to credit risk - The internal ratings-based (IRB) approaches for credit risk - The CVA risk framework - The operational risk framework - The leverage ratio framework	64b	62b	
		Describe the revised output floor introduced as part of the Basel III reforms and approaches to be used when calculating the output floor	64c	62c	
		Explain the elements of the new standardized approach to measure operational risk capital, including the business indicator, internal loss multiplier, and loss component, and calculate the operational risk capital requirement for a bank using this approach	65a	63a	
65	Basel III- Finalising post-crisis reforms	Compare the Standardized Measurement Approach (SMA) to earlier methods of calculating operational risk capital, including the Advanced Measurement Approaches (AMA)	65b	63b	
		Describe general and specific criteria recommended by the Basel Committee for the identification, collection, and treatment of operational loss data	65c	63c	
		<b>Liquidity Risk</b>			
66	Liquidity Risk	Explain and calculate liquidity trading risk via cost of liquidation and liquidity-adjusted VaR (LVAR)	66a	64a	
		Identify examples of liquidity funding risk, funding sources, and lessons learned from real cases: Northern Rock, Ashanti Goldfields, and Metallgesellschaft	66b	64b	reworded

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
66	Liquidity Risk	Evaluate Basel III liquidity risk ratios and BIS principles for sound liquidity risk management	66c	64c	
		Explain liquidity black holes and identify the causes of positive feedback trading	66d	64d	
67	Liquidity and Leverage	Differentiate between sources of liquidity risk and describe specific challenges faced by different types of financial institutions in managing liquidity risk	67a	65a	
		Summarize the asset-liability management process at a fractional reserve bank, including the process of liquidity transformation	67b	65b	
		Compare transactions used in the collateral market and explain risks that can arise through collateral market transactions	67c	65c	
		Describe the relationship between leverage and a firm's return profile (including the leverage effect), and explain the impact of different types of transactions on a firm's leverage and balance sheet	67d	65d	reworded
		Describe and compare methods to measure and manage funding liquidity risk and transactions liquidity risk	67e	65e	reworded
		Calculate the expected transactions cost and the spread risk factor for a transaction and calculate the liquidity adjustment to VaR for a position to be liquidated over a number of trading days	67f	65f	
		Discuss interactions between different types of liquidity risk and explain how liquidity risk events can increase systemic risk	67g	65g	
68	Early Warning Indicators	Evaluate the characteristics of sound Early Warning Indicators (EWI) measures	68a	66a	
		Identify EWI guidelines from banking regulators and supervisors (OCC, BCBS, Federal Reserve)	68b	66b	
		Discuss the applications of EWIs in the context of the liquidity risk management process	68c	66c	
69	The Investment Function in Financial-Services Management	Compare various money market and capital market instruments and discuss their advantages and disadvantages	69a	67a	
		Identify and discuss various factors that affect the choice of investment securities by a bank	69b	67b	
		Apply investment maturity strategies and maturity management tools based on the yield curve and duration	69c	67c	
70	Liquidity and Reserves Management-Strategies and Policies	Calculate a bank's net liquidity position and explain factors that affect the supply and demand of liquidity at a bank	70a	68a	
		Compare strategies that a bank can use to meet demands for additional liquidity	70b	68b	
		Estimate a bank's liquidity needs through three methods (sources and uses of funds, structure of funds, and liquidity indicators)	70c	68c	
		Summarize the process taken by a US bank to calculate its legal reserves		68d	
		Differentiate between factors that affect the choice among alternate sources of reserves		68e	
71	Intraday Liquidity Risk Management	Identify and explain the uses and sources of intraday liquidity	71a	69a	
		Discuss the governance structure of intraday liquidity risk management	71b	69b	
		Differentiate between methods for tracking intraday flows and monitoring risk levels	71c	69c	
72	Monitoring Liquidity	Differentiate between deterministic and stochastic cash flows and provide examples of each	72a	70a	reworded
		Describe and identify examples of liquidity options and explain the impact of liquidity options on a bank's liquidity position and its liquidity management process	72b	70b	reworded
		Describe and apply the concepts of liquidity risk, funding cost risk, liquidity generation capacity, expected liquidity, and cash flow at risk	72c	70c	



Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
72	Monitoring Liquidity	Interpret the term structure of expected cash flows and cumulative cash flows	72d	70d	
		Discuss the impact of available asset transactions on cash flows and liquidity generation capacity	72e	70e	
73	The Failure Mechanics of Dealer Banks	Compare and contrast the major lines of business in which dealer banks operate and the risk factors they face in each line of business	73a	71a	
		Identify situations that can cause a liquidity crisis at a dealer bank and explain responses that can mitigate these risks	73b	71b	
		Assess policy measures that can alleviate firm-specific and systemic risks related to large dealer banks	73c	71c	
74	Liquidity Stress Testing	Differentiate between various types of liquidity, including funding, operational, strategic, contingent, and restricted liquidity	74a	72a	
		Estimate contingent liquidity via the liquid asset buffer	74b	72b	
		Discuss liquidity stress test design issues such as scope, scenario development, assumptions, outputs, governance, and integration with other risk models	74c	72c	
75	Liquidity Risk Reporting and Stress Testing	Describe best practices for the reporting of a bank's liquidity position	75a	73a	reworded
		Compare and interpret different types of liquidity risk reports	75b	73b	
		Explain the process of reporting a liquidity stress test and interpret a liquidity stress test report	75c	73c	
76	Contingency Funding Planning	Discuss the relationship between contingency funding planning and liquidity stress testing	76a	74a	
		Describe best practices in the design of a sound contingency funding plan	76b	74b	reworded
		Assess the key components of a contingency funding plan (governance and oversight, scenarios and liquidity gap analysis, contingent actions, monitoring and escalation, and data and reporting)	76c	74c	
77	Managing and Pricing Deposit Services	Differentiate between the various transaction and non-transaction deposit types	77a	75a	
		Compare the different methods used to determine the pricing of deposits and calculate the price of a deposit account using cost-plus, marginal cost, and conditional pricing formulas	77b	75b	
		Explain challenges faced by banks that offer deposit accounts, including deposit insurance, disclosures, overdraft protection, and basic (lifeline) banking	77c	75c	
78	Managing Non-deposit Liabilities	Distinguish between the various sources of non-deposit liabilities at a bank	78a	76a	
		Describe and calculate the available funds gap	78b	76b	
		Discuss factors affecting the choice of non-deposit funding sources	78c	76c	
		Calculate overall cost of funds using both the historical average cost approach and the pooled-funds approach	78d	76d	
79	Repurchase Agreements and Financing	Describe the mechanics of repurchase agreements (repos) and calculate the settlement for a repo transaction	79a	77a	
		Discuss common motivations for entering into repos, including their use in cash management and liquidity management	79b	77b	
		Explain how counterparty risk and liquidity risk can arise through the use of repo transactions	79c	77c	reworded
		Assess the role of repo transactions in the collapses of Lehman Brothers and Bear Stearns during the 2007-2009 financial crisis	79d	77d	
		Compare the use of general and special collateral in repo transactions	79e	77e	
		Identify the characteristics of special spreads and explain the typical behavior of US Treasury special spreads over an auction cycle	79f	77f	
		Calculate the financing advantage of a bond trading special when used in a repo transaction	79g	77g	



Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
80	Liquidity Transfer Pricing-A Guide to Better Practice	Discuss the process of liquidity transfer pricing (LTP) and identify best practices for the governance and implementation of an LTP process	80a	78a	
		Discuss challenges that may arise for banks during the implementation of LTP	80b	78b	
		Compare the various approaches to liquidity transfer pricing (zero cost, average cost, and matched-maturity marginal cost)	80c	78c	
		Describe the contingent liquidity risk pricing process and calculate the cost of contingent liquidity risk	80d	78d	
81	The US Dollar Shortage in Global Banking and the International Policy Response	Identify the causes of the US dollar shortage during the Great Financial Crisis	81a	79a	
		Evaluate the importance of assessing maturity/currency mismatches across the balance sheets of consolidated entities	81b	79b	
		Describe the policy response by international central banks to alleviate the US dollar shortage and assess its effectiveness	81c		
		Discuss how central bank swap agreements overcame challenges commonly associated with international lenders of last resort		79c	
82	Covered Interest Parity Lost-Understanding the Cross-Currency Basis	Differentiate between the mechanics of foreign exchange (FX) swaps and cross-currency swaps	82a	80a	
		Identify key factors that affect the cross-currency swap basis	82b	80b	
		Assess the causes of covered interest rate parity violations after the financial crisis of 2008	82c	80c	
83	Risk Management for Changing Interest Rates-Asset-Liability Management and Duration Techniques	Discuss how asset-liability management strategies can help a bank hedge against interest rate risk	83a	81a	
		Describe interest-sensitive gap management and apply this strategy to maximize a bank's net interest margin	83b	81b	
		Describe duration gap management and apply this strategy to protect a bank's net worth	83c	81c	
		Discuss the limitations of interest-sensitive gap management and duration gap management	83d	81d	
84	Illiquid Assets	Evaluate the characteristics of illiquid markets	84a	82a	
		Discuss the relationship between market imperfections and illiquidity	84b	82b	reworded
		Assess the impact of biases on reported returns for illiquid assets	84c	82c	
		Explain the process of unsmoothing returns and the effects of unsmoothing	84d	82d	reworded
		Compare illiquidity risk premiums across and within asset categories	84e	82e	
		Evaluate the impact of allocating illiquid assets to a portfolio, including the impact on rebalancing and trading and on optimizing the proportion of illiquid assets	84f	82f	

**Investment Risk**

85	Factor Theory	Describe factors that impact asset prices and explain the theory of factor risk premiums	85a	83a	reworded
		Discuss the capital asset pricing model (CAPM) including its assumptions and explain how factor risk is addressed in the CAPM	85b	83b	
		Explain the implications of using the CAPM to value assets, including equilibrium and optimal holdings, exposure to factor risk, its treatment of diversification benefits, and shortcomings of the CAPM	85c	83c	
		Describe multifactor models and compare and contrast multifactor models to the CAPM	85d	83d	
		Explain how stochastic discount factors are created and apply them in the valuation of assets	85e	83e	
		Describe efficient market theory and explain how markets can be inefficient	85f	83f	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
86	Factors	Describe the process of value investing and explain why a value premium may exist	86a	84a	
		Explain how different macroeconomic risk factors, including economic growth, inflation, and volatility, affect asset returns and risk premiums	86b	84b	
		Assess methods of mitigating volatility risk in a portfolio and describe challenges that arise when managing volatility risk	86c	84c	
		Explain how dynamic risk factors can be used in a multifactor model of asset returns, using the Fama-French model as an example	86d	84d	
		Compare value and momentum investment strategies, including their return and risk profiles	86e	84e	
87	Alpha and the Low-Risk Anomaly	Describe and evaluate the low-risk anomaly of asset returns	87a	85a	
		Define and calculate alpha, tracking error, the information ratio, and the Sharpe ratio	87b	85b	
		Explain the impact of benchmark choice on alpha and describe characteristics of an effective benchmark to measure alpha	87c	85c	
		Describe Grinold's fundamental law of active management, including its assumptions and limitations, and calculate the maximum attainable information ratio using this law	87d	85d	reworded
		Apply a factor regression to construct a benchmark with multiple factors, measure a portfolio's sensitivity to those factors, and measure alpha against that benchmark	87e	85e	
		Explain how to use style analysis to handle time-varying factor exposures	87f	85f	
		Describe issues that arise when measuring alphas for nonlinear strategies	87g	85g	
		Compare the volatility anomaly and the beta anomaly and analyze evidence of each anomaly	87h	85h	
		Describe potential explanations for the risk anomaly	87i	85i	
88	Portfolio Construction	Describe the inputs to the portfolio construction process and explain challenges faced when using these inputs	88a	86a	
		Evaluate the motivation for and the methods used for refining alphas in the implementation process	88b	86b	
		Describe neutralization and the different approaches used for refining alphas to be neutral	88c	86c	
		Explain the implications of transaction costs on portfolio construction	88d	86d	reworded
		Describe practical issues in portfolio construction, including the determination of an appropriate risk aversion, aversions to specific risks, and proper alpha coverage	88e	86e	
		Describe portfolio revisions and rebalancing, and analyze the tradeoffs between alpha, risk, transaction costs, and time horizon	88f	86f	
		Determine the optimal no-trade region for rebalancing with transaction costs	88g	86g	
		Evaluate the strengths and weaknesses of the following portfolio construction techniques: screens, stratification, linear programming, and quadratic programming	88h	86h	
		Describe dispersion, explain its causes, and describe methods for controlling forms of dispersion	88i	86i	
89	Portfolio Risk-Analytical Methods	Define, calculate, and compare the following portfolio VaR measures: diversified and undiversified portfolio VaR, individual VaR, incremental VaR, marginal VaR, and component VaR	89a	87a	reworded
		Explain the impact of correlation on portfolio risk	89b	87b	
		Apply the concept of marginal VaR in making portfolio management decisions	89c	87c	
		Explain and calculate the risk-minimizing position and position that maximizes the ratio of expected return to risk	89d	87d	
		Explain the difference between risk management and portfolio management and describe how to use marginal VaR in portfolio management	89e	87e	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
90	VaR and Risk Budgeting in Investment Management	Define risk budgeting	90a	88a	
		Describe the impact of horizon, turnover, and leverage on the risk management process in the investment management industry	90b	88b	
		Describe the investment process of large investors such as pension funds	90c	88c	
		Describe the risk management challenges associated with investments in hedge funds	90d	88d	
		Describe and compare the following types of risk: absolute risk, relative risk, policy-mix risk, active management risk, funding risk, and sponsor risk	90e	88e	reworded
		Explain the use of VaR to monitor risk	90f	88f	reworded
		Explain how VaR can be used in the development of investment guidelines and for improving the investment process	90g	88g	
		Describe the risk budgeting process and calculate risk budgets across asset classes and active managers	90h	88h	
91	Risk Monitoring and Performance Measurement	Describe the three fundamental dimensions behind risk management, and their relation to VaR and tracking error	91a	89a	
		Describe risk planning, including its objectives, effects, and the participants in its development	91b	89b	
		Describe risk budgeting and the role of quantitative methods in risk budgeting	91c	89c	
		Describe risk monitoring and its role in an internal control environment	91d	89d	
		Identify sources of risk consciousness within an organization	91e	89e	
		Describe the objectives and actions of a risk management unit in an investment management firm	91f	89f	
		Explain how risk monitoring can confirm that investment activities are consistent with expectations	91g	89g	reworded
		Describe the Liquidity Duration Statistic and how it can be used to measure liquidity	91h	89h	
		Describe the objectives of performance measurement tools	91i	89i	
		Explain the use of alpha, benchmarks, and peer groups as inputs in performance measurement tools	91j	89j	reworded
92	Portfolio Performance Evaluation	Differentiate between the time-weighted and dollar-weighted returns of a portfolio and describe their appropriate uses	92a	90a	
		Describe risk-adjusted performance measures, such as Sharpe's measure, Treynor's measure, Jensen's measure (Jensen's alpha), and the information ratio, and identify the circumstances under which the use of each measure is most relevant	92b	90b	
		Describe the uses for the Modigliani-squared and Treynor's measure in comparing two portfolios and the graphical representation of these	92c	90c	
		Determine the statistical significance of a performance measure using standard error and the t-statistic	92d	90d	
		Describe style analysis	92e	90e	
		Explain the difficulties in measuring the performance of actively managed portfolios	92f	90f	
		Describe performance manipulation and the problems associated with using conventional performance measures	92g	90g	
		Describe techniques to measure the market timing ability of fund managers with a regression and with a call option model and calculate a manager's return due to market timing	92h	90h	reworded
		Describe and apply performance attribution procedures, including the asset allocation decision, sector and security selection decision, and the aggregate contribution	92i	90i	
93	Hedge Funds	Explain biases that are commonly found in databases of hedge funds	93a	91a	
		Explain the evolution of the hedge fund industry and describe landmark events that precipitated major changes in the development of the industry	93b	91b	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
93	Hedge Funds	Explain the impact of institutional investors on the hedge fund industry and assess reasons for the growing concentration of assets under management (AUM) in the industry	93c	91c	
		Explain the relationship between risk and alpha in hedge funds	93d	91d	
		Compare and contrast the different hedge fund strategies, describe their return characteristics, and describe the inherent risks of each strategy	93e	91e	
		Describe the historical portfolio construction and performance trends of hedge funds compared to those of equity indices	93f	91f	
		Describe market events that resulted in a convergence of risk factors for different hedge fund strategies and explain the impact of such convergences on portfolio diversification strategies	93g	91g	
		Describe the problem of risk sharing asymmetry between principals and agents in the hedge fund industry	93h	91h	
94	Performing Due Diligence on Specific Managers and Funds	Identify reasons for the failures of hedge funds in the past	94a	92a	
		Explain elements of the due diligence process used to assess investment managers	94b	92b	
		Identify themes and questions investors can consider when evaluating a hedge fund manager	94c	92c	
		Describe criteria that can be evaluated in assessing a hedge fund's risk management process	94d	92d	
		Explain how due diligence can be performed on a hedge fund's operational environment	94e	92e	
		Explain how a hedge fund's business model risk and its fraud risk can be assessed	94f	92f	
95	Predicting Fraud by Investment Managers	Describe elements that can be included as part of a due diligence questionnaire	94g	92g	
		Explain the use and efficacy of information disclosures made by investment advisors in predicting fraud	95a	93a	
		Describe the barriers and the costs incurred in implementing fraud prediction methods	95b	93b	
	Review of the Federal Reserves Supervision and Regulation of Silicon Valley Bank	Discuss ways to improve investors' ability to use disclosed data to predict fraud	95c	93c	
		Describe the events leading up to the failure of Silicon Valley Bank		94a	
		Describe shortfalls and deficiencies in the Federal Reserve's supervisory oversight of Silicon Valley Bank during the period that the bank transitioned from the Fed's Regional Banking Organization (RBO) portfolio to its Large and Foreign Banking Organization (LFBO) portfolio		94b	
		Identify Silicon Valley Bank's specific risk issues which led to and accelerated its failure including deposit concentration, type of deposits, held-to-maturity securities, available-for-sale securities, the bank's contingent funding plan and capacity, and its capital raising efforts		94c	
		Identify and describe the failures and shortfalls of Silicon Valley Bank in the areas of governance and risk management including those related to the CRO position and the bank's internal audit function		94d	
		Identify the scope of Silicon Valley Bank's liquidity risk management deficiencies and shortfalls, including its modeling and stress testing of its 30-day liquidity buffer, as well as the actions that management and regulators considered to address these specific liquidity issues		94e	
		Describe the deficiencies in Silicon Valley Bank's interest rate risk management process, including its modelling process, and explain how proper use of metrics such as net interest income (NII) at risk and economic value of equity (EVE) could have improved its management of interest rate risk		94f	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
	The Credit Suisse CoCo Wipeout-Facts, Misperceptions, and Lessons for Financial Regulation	Describe the features and mechanics of contingent convertible bonds (CoCos) and explain the rationale for banks to issue them		95a	
		Explain the rescue of Credit Suisse by Swiss regulators in 2023 and compare it to the rescue of Bear Stearns by US regulators during the financial crisis in 2008		95b	
		Explain the rationale for the write-down of Credit Suisse CoCos that was engineered by regulators during the rescue of Credit Suisse and its takeover by UBS		95c	
		Describe the reactions by market participants to the write-down of the CoCos, and explain and evaluate different arguments and lessons learned related to the decision to write down the CoCos		95d	
<b>Current Issues</b>					
96	2023 Bank Failures, Preliminary lessons learnt for resolution	Evaluate the Credit Suisse case and its implications for the international resolution framework	96a		
		Evaluate the US bank failures of 2023 and their implications for the international resolution framework	96b		
		Identify and describe the strengths and weaknesses of the resolution framework as demonstrated by Credit Suisse case and the US bank failures of 2023	96c		
		Describe the uncovered issues for bank resolution that require further studies and development for future improvements on the implementation of the international resolution framework	96d		
97	Generative Artificial Intelligence in Finance-Risk Considerations	Compare generative AI and traditional AI/ML algorithms	97a		
		Explain the challenges generative AI systems pose for the financial sector, including those related to data privacy, embedded bias, model robustness, and explainability	97b		
		Examine the use of synthetic data to enhance AI models and the potential risks associated with synthetic data generation and application	97c		
		Evaluate the cybersecurity threats and potential impact on financial stability posed by the use of generative AI in the financial sector	97d		
98	Artificial intelligence and the economy-implications for central banks	Identify and describe the risks arising from the widespread use of AI applications in the financial sector	98a		
		Describe how central banks can harness AI to fulfill their policy objectives	98b		
		Explain the macroeconomic impact of AI, including implications for firms' productive capacity and investment, labor productivity, household consumption, economic output, inflation, and fiscal sustainability	98c		
		Explain how the use of AI presents new opportunities and challenges for central banks, including the central banks' role as users and providers of data, and the trade-offs posed by their use of both internally-developed and external AI models	98d		
99	Interest Rate Risk Management by EME Banks	Describe the mechanisms through which changes in market interest rates affect a bank's economic value and the key methods banks use to manage interest rate risk	99a		
		Compare the methods banks in emerging market economies (EME) and banks in advanced economies have historically used to manage their interest rate risk and how these methods affected their vulnerability to changes in interest rates	99b		
		Explain the recent changes in EME banks' exposure to interest rate risk and the importance of hedging this risk	99c		

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
100	Laying a robust macro-financial foundation for the future	Explain why the sudden increase in inflation that reached a peak in 2022 following the Covid-19 pandemic did not result in a full-scale global recession	100a		
		Identify and describe key factors that played a role in the process of disinflation around the world over the past year	100b		
		Describe policy measures introduced and implemented by different central banks aimed at driving their economies toward meeting inflation targets	100c		
		Discuss how monetary policy changes enacted by central banks to reduce inflation impacted equity prices, credit spreads, bond and equity volatilities, and bank lending	100d		
		Describe monetary, fiscal, prudential, and structural policies that need to be adopted to promote (long-term) sustainable economic growth and low inflation	100e		
101	The Rise and Risks of Private Credit	Describe characteristics of private credit, including its typical investors and borrowers, and compare private credit to other types of loans and fixed-income instruments	101a		
		Explain the return profile and growth profile of the private credit asset class, and compare the historical returns of private credit to those of other asset classes	101b		
		Describe and assess the risks and vulnerabilities related to private credit, and explain how private credit can pose risks to financial stability	101c		
		Assess potential policy recommendations that could help mitigate the risks associated with private credit	101d		
102	Monetary and fiscal policy-safeguarding stability and trust	Compare and contrast the channels through which fiscal policy and monetary policy influence a country's economic activity and financial markets, and define the "region of stability" in terms of their joint policy stances	102a		
		Describe the consequences of breaching the boundaries of the region of stability, and how these consequences have evolved over time in advanced economies and in emerging market economies	102b		
		Describe the risks that global economies face as a result of high public debt levels, including the potential for these high debt levels, in combination with other factors, to drive tension between fiscal policy and monetary policy	102c		
103	Regulating the Crypto Ecosystem-The Case of Unbacked Crypto Assets	Define and describe crypto assets, including the categories broadly used by global financial regulators to classify them	103a		
		Evaluate the key components within the crypto ecosystem, the potential risks generated by these components, and potential regulatory responses to address those risks	103b		
		Identify and describe some of the global approaches to the regulation of unbacked crypto assets, including the BCBS' proposed treatment of banks' exposures to crypto assets	103c		
		Examine the considerations and steps introduced by the Bali Fintech Agenda (BFA) for developing a regulatory framework for crypto assets	103d		
104	Digital Resilience and Financial Stability	Describe characteristics of cyber risks and information/communication technology (ICT) risks faced by financial institutions	104a	103a	
		Assess the interactions between cyber and ICT risks and financial risks and explain how cyber and ICT risk events at financial institutions can lead to systemic financial risk	104b	103b	
		Describe potential macroprudential tools and policy measures that can be used to address cyber risks and ICT risks and explain challenges to the adoption of each one	104c	103c	

Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
	Artificial Intelligence and Bank Supervision	Describe historical evolution and common types of AI-based applications used in the financial sector		96a	
		Explain the advantages of implementing AI-based applications to the banking services companies and their customers		96b	
		Discuss the disadvantages and difficulties for financial companies using AI		96c	
		Clarify the specific issues faced by banks and regulators arising from utilizing AI in modeling and valuation		96d	
	Financial Risk Management and Explainable, Trustworthy, Responsible AI	Describe the challenge posed by potential model bias and the ethical and responsible considerations surrounding the implementation of AI-driven solutions in financial risk management		97a	
		Analyze the potential benefits and challenges of utilizing AI while maintaining fairness and preventing biases in risk assessment and decision-making		97b	
		Explain the proposed considerations for the technical validation of decision-making algorithms to check for potential unfairness		97c	
		Describe the approaches and technologies that should be considered in the implementation and assessment of Trustworthy AI		97d	
		Examine the application of Explainable AI (XAI) in the field of credit risk management as presented in the use case of a European insurance group		97e	
	Artificial Intelligence Risk Management Framework	Describe how organizations can frame the risks related to AI and explain the challenges that should be considered in AI risk management		98a	
		Identify AI actors across the AI lifecycle dimensions and describe how these actors work together to manage risks and achieve the goals of trustworthy and responsible AI		98b	
		Describe the characteristics of trustworthy AI and analyze the proposed guidance to address them		98c	
		Explain the potential benefits of periodically evaluating AI risk management effectiveness		98d	
		Describe specific functions applied to help organizations address the risks of AI systems in practice		98e	
	Climate-Related Risk Drivers and their Transmission Channels	Describe climate-related risk drivers and explain how those drivers give rise to different types of risks for banks		99a	
		Compare physical and transition risk drivers related to climate change		99b	
		Assess the potential impact of different microeconomic and macroeconomic drivers of climate risk		99c	
		Describe and assess factors that can amplify the impact of climate-related risks on banks as well as potential mitigants for these risks		99d	
	Climate-Related Financial Risks-Measurement Methodologies	Describe main issues in identifying and measuring climate-related financial risks		100a	
		Identify unique data needs inherent in the climate-related risks and describe candidate methodologies that could be used to analyze these types of data		100b	
		Describe current and developing methodologies for measuring climate-related financial risks employed by banks and supervisors		100c	
		Compare and contrast climate-measuring methodologies utilized by banks, regulators, and third-party providers		100d	
		Identify strengths and weaknesses of the main types of measurement approaches		100e	
		Assess gaps and challenges in designing a modeling framework to capture climate-related financial risk		100f	



Reading No.	Reading Name	Learning Outcome	2025 LOS	2024 LOS	Changes
	Principles for the Effective Management and Supervision of Climate-Related Financial Risks	Describe the principles for managing climate-related financial risks related to corporate governance and internal control framework		101a	
		Describe the principles for managing climate-related financial risks related to capital and liquidity adequacy and the risk management process		101b	
		Describe the principles for the management of climate-related financial risks related to management, monitoring, and reporting, comprehensive management of credit risk and other risks, and scenario analysis		101c	
		Describe the principles for the supervision of climate-related financial risks related to prudential regulatory and supervisory requirements for banks and responsibilities, powers, and functions of supervisors		101d	
	The Crypto Ecosystem-Key Elements and Risks	Describe the key elements of the crypto ecosystem, including unbacked crypto, stablecoins, smart contracts, and DeFi services		102a	
		Describe the structural flaws inherent in various elements of the crypto ecosystem		102b	
		Describe the risks crypto poses to parties including crypto investors, governments, regulators, and traditional financial institutions; and identify potential policy actions that can be taken to mitigate these risks		102c	