

CFE – Foundations of CFE Exam

Fall 2023 and Spring 2024

Important Exam Information:

Exam Registration	Candidates may register online or with an application.
Order Study Notes	Study notes are part of the required syllabus and are not available electronically but may be purchased through the online store.
Syllabus Readings	Readings listed in this syllabus may include study notes, online readings and textbooks. Candidates are responsible for all readings in their entirety, including sections such as Appendices, unless it is stated otherwise in the syllabus.
Introductory Study Note	The Introductory Study Note has a complete listing of all study notes as well as errata and other important information.
Overview Study Note	Study Note F-20-23 is designed to provide an overview of the CFE Track and this exam. Candidates should read it prior to beginning preparation for the exam. While it can be a valuable aid in preparation, the material in this note will not be tested.
<u>Case Study</u>	A copy of the case study will be provided with the examinations. Candidates will not be allowed to bring their copy of the case study into the examination room.
Past Exams	Past Exams from 2000-present are available on SOA website.
<u>Updates</u>	Candidates should be sure to check the Updates page on the exam home page periodically for additional corrections or notices to the current syllabus. Copyright © Society of Actuaries

1. Topic: Corporate Finance

Learning Objectives

The candidate will understand how an organization optimizes its corporate finance decisions based on its business objectives.

Learning Outcomes

The Candidate will be able to:

- a) Recommend an optimal capital structure for given business objectives and the competitive environment
- b) Compare and contrast methods to determine the value of a business or project, including the impact of financial and non-financial factors on capital budgeting and allocation decisions
- c) Assess the impact on value creation from business strategies such as acquisitions, divestitures, and restructurings

Resources

- Corporate Finance, Berk, Jonathan and Demarzo, Peter, 5th Edition, 2020
 - Ch. 8: Fundamentals of Capital Budgeting (background only)
 - o Ch. 18: Capital Budgeting and Valuation with Leverage
 - o Ch. 22: Real Options
 - Ch. 27: Short-Term Financial Planning
 - o Ch. 28: Mergers and Acquisitions
 - Ch. 31: International Corporate Finance
- F-157-23: CFO Forum: Market Consistent Embedded Value Basis for Conclusions
- F-158-F23: Hurdle Rate Definition
- F-159-F23: A Brief Primer on Financial Reinsurance
- F-160-F23: Why Private Equity Sees Life and Annuities as an Enticing Form of Permanent Capital
- <u>Return on Capital Enhancement Opportunities for the Life Insurance Industry</u>, Reinsurance News, Jul 2017

2. Topic: Financial Statement Analysis

Learning Objectives

The candidate will understand how to gauge an organization's performance through an evaluation of its financial reports.

Learning Outcomes

The Candidate will be able to:

- a) Analyze the reported financial statements and the interrelationships among them, in order to measure financial performance
- b) Identify and analyze the impact of unusual accounting practices on the quality of earnings and assets, including analyzing the signs of questionable accounting
- c) Analyze the impact of accounting policies, including tax accounting, local regulations, and foreign exchange rates

Resources

- International Financial Statement Analysis, Robinson et al, 4th Edition, 2020
 - Ch. 6: Financial Analysis Techniques
 - o Ch. 9: Income Taxes
 - o Ch. 11: Financial Reporting Quality
 - Ch. 15: Multinational Operations
- F-161-F23: Bank Profitability

Note: If you want to refresh your knowledge on Financial Statements, Ch. 1-5 of the *International Financial Statement Analysis* book may be useful.

3. Topic: Managerial Accounting and Operational Excellence

Learning Objectives

The candidate will understand how managerial accounting, ERM and operational processes impact an organization's performance evaluation and decision making.

Learning Outcomes

The Candidate will be able to:

- a) Assess how managerial accounting can impact decision making, behavior and performance evaluation
- b) Assess and recommend methods used to allocate costs and how these methods impact perceived performance
- c) Evaluate ERM risk measurement, modeling, and management of financial and non-financial risks that impact performance
- d) Recommend best practices in business and ERM processes to achieve operational excellence

Resources

- Accounting for Decision Making and Control, Zimmerman, Jerold, 10th Edition, 2020
 - o Ch. 5: Responsibility Accounting and Transfer Pricing
 - Ch. 7: Cost Allocation: Theory
 - Ch. 9: Absorption Cost Systems
- Implementing Enterprise Risk Management from Methods to Applications, Lam, James, 2017
 - Ch. 16: Risk-Based Performance Management
 - Ch. 17: Integration of KPIs and KRIs
 - o Ch. 18: ERM Dashboard Reporting
 - Ch. 19: Feedback Loops (pp. 366-371)
- Managing Business Process Flows, Anupindi, R., Chopra, S. and Deshmukh, S., 3rd Edition, 2012
 - o Ch. 1: Products, Processes and Performance
 - Ch. 2: Operations Strategy and Management
- F-155-21: Product Costing in Service Organizations
- F-156-21: Activity-Based Costing (ABC) and the Life Insurance Industry
- F-162-F23: Procurement, Early Warning Systems, and the Next Disruption
- F-163-F23: Financial Institutions and Nonfinancial Risk: How Corporates Build Resilience
- F-164-F23: Ch 18 Case Studies from *Operational Risk Management: A Complete Guide to a Successful Operational Risk Framework,* Girling, Philippa
 - JP Morgan Whale: Risky or Frisky
 - Credit Suisse Archegos Scandal 2021

4. Topic: Quantitative Methods

Learning Objectives

The candidate will understand the application of quantitative methods and techniques with a risk management focus to business problems for an organization.

Learning Outcomes

The Candidate will be able to:

- a) Assess and apply methods and processes for quantifying and managing hedgeable and non-hedgeable risks
- b) Evaluate model risks and processes
 - i. Assess model tradeoffs among usefulness, resource constraints, timeliness, fidelity, and accuracy
 - ii. Assess processes for vetting models
- c) Evaluate results of deterministic, stress-testing, stochastic and simulation methods and models

Resources

- Measuring Market Risk, Dowd, Kevin, 2nd Edition, 2005
 - o Ch. 9: Applications of Stochastic Risk Measurement Methods
 - o Ch. 13: Stress Testing
 - Ch. 15: Backtesting Market Risk Models
 - o Ch. 16: Model Risk
- Fundamentals of Machine Learning for Predictive Data Analytics, Kelleher, John D., Mac Namee, Brian and D'Arcy, Aoife, 2nd Edition, 2020
 - Ch. 2: Data to Insights to Decisions (background only)
 - Ch. 3: Data Exploration (background only)
 - o Ch. 9: Evaluation
 - o Ch. 12: Case Study: Customer Churn
 - Ch. 14: The Art of Machine Learning for Predictive Data Analytics
- F-131-16: Heavy Models, Light Models and Proxy Models, sections 1-5 & 7 (excluding Appendices)
- F-139-19: How to Improve Quality of Stress Tests Through Backtesting (excluding Appendices)
- F-165-F23: Decentralized Finance: On Blockchain- and Smart Contract-Based Financial Markets
- F-166-F23: Ch. 9 DeFi Insurance from *Decentralized Insurance*, Feng, Runhuan., 2022
- Nested Stochastic Modeling for Insurance Companies (excluding Appendices), Nov 2016