

CFE – Foundations of CFE Exam

Fall 2024 and Spring 2025

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-20-24 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.

[Case Study](#)

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 Fall 2020-present are available on SOA website.

[Updates](#)

Candidates should be sure to check for updates on the Exam Study page periodically for additional corrections or notices to the current syllabus.

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: <ul style="list-style-type: none">a) Recommend an optimal capital structure for given business objectives and the competitive environmentb) Evaluate the methods to determine the value of a business or project, including the impact of financial and non-financial factors on capital budgeting and allocation decisionsc) Assess the impact on value creation from business strategies such as acquisitions, divestitures, and/or restructurings
Resources
<ul style="list-style-type: none">• <i>Valuation: Measuring and Managing the Value of Companies</i>, Koller, Tim, et al., 7th Edition, 2020<ul style="list-style-type: none">○ Ch. 10: Frameworks for Valuation (excluding pp. 202-204; starting with section “Problematic Modifications to Discounted Cash Flow”)○ Ch. 22: Leases○ Ch. 27: Cross-Border Valuation○ Ch. 31: Mergers and Acquisitions○ Ch. 33: Capital Structure, Dividends and Share Repurchases (pp. 641-651 only)○ Ch. 39: Flexibility• 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• Return on Capital Enhancement Opportunities for the Life Insurance Industry, 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: <ul style="list-style-type: none">a) Analyze the reported financial statements and the interrelationships among them, in order to measure financial performanceb) Identify the unusual or questionable accounting practices and analyze their impact on the quality of key financial metricsc) Analyze the impact on financial statements from the adopted accounting policies, such as tax accounting and foreign exchange rates
Resources
<ul style="list-style-type: none">• <i>International Financial Statement Analysis</i>, Robinson et al, 4th Edition, 2020<ul style="list-style-type: none">○ Ch. 6: Financial Analysis Techniques○ Ch. 9: Income Taxes○ Ch. 11: Financial Reporting Quality○ Ch. 15: Multinational Operations• F-161-F23: Bank Profitability <p>Note: If you want to refresh your knowledge on Financial Statements, Ch. 1-5 of the <i>International Financial Statement Analysis</i> book may be useful.</p>

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: <ul style="list-style-type: none">a) Assess how managerial accounting can drive decision making, behavior and performance evaluationb) Assess and recommend methods used to allocate costs and how these methods can distort the perceived performancec) Evaluate ERM risk measurement, modeling, and management of financial and non-financial risks that impact performanced) Recommend best practices in business and ERM processes to achieve operational excellence
Resources
<ul style="list-style-type: none">• <i>Accounting for Decision Making and Control</i>, Zimmerman, Jerold, 10th Edition, 2020<ul style="list-style-type: none">○ Ch. 5: Responsibility Accounting and Transfer Pricing○ Ch. 7: Cost Allocation: Theory○ Ch. 9: Absorption Cost Systems• <i>Implementing Enterprise Risk Management from Methods to Applications</i>, Lam, James, 2017<ul style="list-style-type: none">○ Ch. 16: Risk-Based Performance Management○ Ch. 17: Integration of KPIs and KRIs○ Ch. 18: ERM Dashboard Reporting○ Ch. 19: Feedback Loops (pp. 366-371)• <i>Managing Business Process Flows</i>, Anupindi, R., Chopra, S. and Deshmukh, S., 3rd Edition, 2012<ul style="list-style-type: none">○ 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 <i>Operational Risk Management: A Complete Guide to a Successful Operational Risk Framework</i>, Girling, Philippa<ul style="list-style-type: none">○ JP Morgan Whale: Risky or Frisky○ Credit Suisse Archegos Scandal 2021

4. Topic: Quantitative Methods and Models

Learning Objectives

The candidate will understand the application of quantitative methods and techniques 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 and technologies
- 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
 - Ch. 9: Applications of Stochastic Risk Measurement Methods
 - Ch. 13: Stress Testing
 - Ch. 15: Backtesting Market Risk Models
 - 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
 - Ch. 9: Evaluation
 - 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)
- [Nested Stochastic Modeling for Insurance Companies](#) (excluding Appendices), Nov 2016
- [Decentralized Finance for Actuaries](#), SOA Research Institute, Mar 2022
- [Peer-to-Peer Insurance: Blockchain Implications](#), SOA, Mar 2021
- [Decentralized Insurance Alternatives: Market Landscape, Opportunities and Challenges](#), SOA Research, Sep 2022, pp. 9-26