



CEFA

Certified European Financial Analyst

Programme Overview



CEFA

EFFAS Certified
European Financial Analyst

1. Welcome

Welcome aboard the CEFA programme.

The Certified European Financial Analyst Diploma (CEFA) was set up in 1991. Since its introduction, the CEFA diploma has become one of the most respected and recognized professional credentials in the world, known as the "gold standard" among financial industry professionals in Europe. It is accredited in 18 European countries in addition to Argentina, Brazil and Peru and is well recognised by employers. Our Diploma respects local market requirements, conditions, and characteristics as well as individual cultures. That's why the CEFA Diploma designation is recognized by the Financial Conduct Authority FCA in UK and its counterparts in many European countries such as the CNMV Spain, CMVM Portugal, MFSA Malta, A.S.F./B.N.R. Romania and HCMC Greece among others.

To date, over 16,000 professionals in Europa are CEFA holders.

2. Introduction

The CEFA evaluates the set of banking and financial skills necessary to carry out financial analysis, advisory and investment as well as portfolio management tasks. Furthermore, the CEFA is compliant with the regulatory requirements described in the Final Report "Guidelines for the assessment of knowledge and competence" published on 17th December 2015 by the European Securities and Markets Authority (ESMA), for the personnel performing as investment advisors in financial institutions.

The CEFA is a benchmarked qualification with decentralized/centralized exams, ensuring the major professional skills that candidates need. The CEFA is a qualification equivalent to a master's degree and equals level 7 of the European Qualifications Framework (EQF). The training includes both; relevant material to the investment profession (irrespective of where such professionals are located) and a significant coverage of regulatory and market structure material that is closely related to the European marketplace. The CEFA quality is controlled by the EFFAS Review Panel, an independent high-level academic body.

3. Target Audience

The CEFA Programme is particularly aimed at professionals in the following areas:

Asset managers with asset management companies, pensions funds, life insurance companies, wealth management companies; financial researchers; corporate finance specialists and treasurers; financial journalists; professionals involved in legislation / regulation of the above-mentioned fields; professionals already working in the investment sector but looking for a more specific qualification.

4. Programme Objectives

The general objective is to provide a uniform high-level standard of training for investment professionals within Europe with a strong focus on advanced investment analysis, portfolio management, ethical standards, and decision-making skills. On completing the programme students should be able to face the emerging challenges of our profession (see CEFA Learning Outcome Statements).



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5. Programme Structure

The E-CEFA is a comprehensive programme structured into the following Topic Areas:

- Economics
- Corporate Finance
- Financial Accounting and Financial Statement Analysis
- Equity Valuation and Analysis
- Derivative Valuation and Analysis
- Fixed Income Valuation and Analysis
- Portfolio Management
- European Regulation & Ethics
- ESG

6. Programme Description

Topic 1. Economics

1. Macroeconomics

2. Gross Domestic Product (GDP)

3. Savings and Investment

4. The IS-LM Model in a Closed Economy

1. Introduction
2. Goods Market Equilibrium: The IS Curve
3. Money Market Equilibrium: The LM Curve
4. Equilibrium in the IS-LM Model
5. Fiscal Policy in the IS-LM Model
6. Monetary Policy in the IS-LM Model

5. Aggregate Demand and Aggregate Supply

1. Introduction
2. Aggregate Demand
3. Aggregate Supply
4. Equilibrium in the AD-AS Model
5. Fiscal Policy in the AD-AS Model
6. Monetary Policy in the AD-AS Model

6. Economic Growth

1. Introduction
2. Measuring Economic Growth
3. Accumulation of Capital
4. Technological Progress

7. Business Cycles

1. Introduction
2. Exogenous Business Cycles
3. Endogenous Business Cycles
4. Fiscal Policy and Business Cycles
5. Monetary Policy and Business Cycles

8. Central Banks and Monetary Policy

1. Introduction
2. Money and Credit Supply
3. Money and Credit Demand
4. Concept of Inflation
5. Phillips Curve
6. Transmission Mechanism
7. Unconventional Policy Instruments

9. Exchange Rates

1. Introduction
2. Foreign Exchange Market
3. Exchange Rate Determinants
4. Nominal and Real Exchange Rates
5. Purchasing Power Parity
6. Interest Rate Parity
7. Impossible Trinity

10. The IS-LM-Model in an Open Economy: The Mundell-Fleming Model

1. Introduction
2. Adjusting the IS-LM Model
3. Effectiveness of Fiscal Policy



10.4. Effectiveness of Monetary Policy

11. Aggregate Demand and Aggregate Supply in an Open Economy

1. Introduction
2. Adjusting the AD-AS Model

After studying this module, students will be able to clearly differentiate between monetary and fiscal policy, explain functions and definitions of money and describe the money creation process. Students will understand demand for and supply of money, explain objectives of central banks and the conventional and unconventional instruments of monetary policy considering inflationary pressures and will be able to explain the relationships between monetary policy and economic growth. Also, students will be able to explain the implementation of an expansionary and contractionary fiscal policy and potential difficulties, and the interaction of monetary and fiscal policy.

Students will further develop a sound understanding of the composition of the gross domestic product (GDP); analyse costs and benefits of international trade; distinguish between comparative advantage and absolute advantage; compare the Ricardian and Heckscher-Ohlin models of trade and the source(s) of comparative advantage in each model, respectively.

Finally, students will be able to distinguish between nominal and real exchange rates and describe compare fixed versus floating exchange rate regimes; focussing on how exchange rates affect economies' international trade and capital flows.

Also, based on several case studies embedded into this module, students will gain an in-depth view of selected economic issues, designed to improve their understanding of recent economic developments.



Topic 2. Corporate Finance

1. Fundamentals

1. Introduction
2. Objectives of Corporate Finance
3. Maximising Shareholder Value
4. Valuation Principles and Investment Decisions
5. Net Present Value Principle
6. Discounted Cash Flow (DCF) Principle
7. Capital Budgeting
8. Cost of Capital
9. Capital Asset Pricing Model (CAPM)
10. Weighted Average Cost of Capital (WACC)

2. Long-Term Financing

1. Introduction
2. Financing Decisions
3. Financial Planning

3. Short-Term Financing

1. Introduction
2. Financing Decisions
3. Role of Working Capital
4. Credit Management
5. Cash Management
6. Short-Term Lending
7. Short-Term Borrowing

4. Capital Structure

1. Introduction
2. Leverage and Corporate Value
3. Modigliani-Miller-Theorem
4. Impact of Dividend Policy on Corporate Value

5. Mergers and Acquisitions

1. Introduction
2. Valuation Aspects
3. Typology of Acquisitions
4. Acquisition Strategies
5. Defensive Strategies

6. International Corporate Finance

1. Introduction
2. Capital Budgeting for a Multinational Corporation
3. Project Finance

After studying this module, students will be able to describe corporate governance; i.e. companies' stakeholders and their interests (e.g. principal-agent and other relationships as well as the conflicts that may arise).

Further, students will be able to describe the capital budgeting process, i.e. to describe the basic principles of capital budgeting, calculate and interpret net present value (NPV), internal rate of return (IRR), payback period, discounted payback period, and profitability index (PI) of a single capital project and describe the problems associated with each of the evaluation methods. Also, students will be able to describe expected relations among investments' NPV, company value, and share price.

Students will furthermore be able to calculate and interpret a company's weighted average cost of capital (WACC); describe how taxes affect the cost of capital from different capital sources; describe the use of target capital structure in estimating WACC; explain how the marginal cost of capital and the investment opportunity schedule are used to determine the optimal capital budget and explain the marginal cost of capital's role in determining the NPV of a project. Also, students will be able to calculate and interpret the cost of debt capital.

Finally, several different case studies, which are designed to reflect more recent capital market developments, will provide students with a practitioner's in-depth assessment of corporate finance.

Topic 3. Financial Accounting and Financial Statement Analysis

1. Fundamentals

1. Introduction
2. Financial Statements
3. Balance Sheet
4. Income Statement
5. Cash Flows
6. Financial Reporting
7. International Accounting Principles

2. Conceptual Framework

1. Introduction
2. Definitions
3. Objectives of Financial Statements
4. Accounting Conventions

3. Cash Flow Statement

1. Introduction
2. Rationale
3. Income Statements and Cash Flows
4. Direct versus Indirect Method

4. Income Statement

1. Introduction
2. Understanding Revenues
3. Valuating Revenues
4. Construction Contracts
5. Role of Stock Options and Other Benefits

5. Assets, Liabilities and Shareholder Equity

1. Introduction
2. Assets
3. Liabilities
4. Shareholder Equity

After studying this module, students will be able to describe the classification, measurement, and disclosure under International Financial Reporting Standards (IFRS), distinguish between IFRS and US GAAP in the classification, measurement, and disclosure of and analyse how the different methods used affect financial statements and ratios.

Further, after studying this module, students will be able to distinguish among reporting, functional and local currency; describe foreign currency transaction exposure and account for and disclose about foreign currency transaction gains and losses and analyse; analyse how changes in exchange rates affect translated sales of subsidiaries and parent company.

Finally, a series of case studies embedded into this module will illustrate a practitioner's hands-on approach of more recent topics in financial accounting.

Topic 4. Equity Valuation and Analysis

1. Fundamentals

1. Introduction
2. Typology of Equity Instruments
3. Equity Indices and Stock Exchanges

2. Equity Markets

- 2.1 Introduction
2. Market Structure and Participants
3. Equity Trading
4. Equity Financing

3. The Industry

1. Introduction
2. Industrial Sector Analysis
3. Industrial Sector Characteristics
4. Macroeconomic Determinants
5. Sector Forecasts
6. Balance Sheet Determinants
7. Corporate Strategies
8. Valuation Aspects

4. The Company

1. Introduction
2. Financial Performance Indicators
3. Segmental Information
4. Inventory, Debtors, and Creditors
5. Depreciation and Amortisation
6. Forecasts

5. Equity Valuation

1. Introduction
2. Dividend Discount Model
3. Free Cash Flow Model
4. Other concepts
5. Relative Value Concepts

After studying this module, students will be able to define valuation and intrinsic value of equity instruments and explain sources of perceived mispricing. They will further be able to explain the going concern assumption and contrast a going concern value to a liquidation value; describe definitions of value and justify which definition of value is most relevant to public company valuation. Also, students will be able to describe applications of equity valuation, i.e. to raise questions that should be addressed when conducting an industry and competitive analysis. Finally, students will be able to distinguish between absolute and relative valuation models and explain criteria for choosing an appropriate approach for valuing a given company.

Also, on the basis of selected case studies, students will gain an in-depth view of how to properly analyse different industrial sectors as well as corporates and how to apply selected issues of equity valuation and analysis to practical cases.

Topic 5. Derivative Valuation and Analysis

1. Fundamentals

1. Introduction
2. Derivatives Market
3. Fixed Income Derivatives
4. Equity Derivatives

2. Futures and Forwards

1. Introduction
2. Futures Markets
3. Arbitrage, Hedging and Pricing Futures
4. Equity Futures and Forwards
5. Foreign Exchange Futures and Forwards
6. Commodity Futures and Forwards
7. Interest Rate Futures and Forwards
8. Short -Term Interest Rate Futures
9. Long-Term Interest Rate Futures

3. Options

1. Introduction
2. European versus American Options
3. Pricing Options – Binomial Model
4. Pricing Options – Black Scholes Model
5. Equity Options
6. Foreign Exchange Options
7. Interest Rate Options
8. Exotic Options
9. Trading Strategies

4. Swaps

1. Introduction
2. Interest Rate Swaps
3. Foreign Exchange Swaps
4. Swaptions
5. Other Swaps

5. Credit Default Swaps

1. Introduction
2. Market for Credit Default Swaps
3. Institutional Framework
4. Pricing Credit Default Swaps

6. Asset-Backed Securities

1. Introduction
2. Underlying Assets
3. Pricing Asset-Backed Securities

After studying this module, students will be able to define a derivative and distinguish between exchange-traded and over-the-counter (OTC) derivatives. Further, students will be able to understand forward and futures contracts, options (calls and puts), swaps, and credit derivatives as well as their basic characteristics, purposes and related controversies.

Further, students will be able to explain how the value and price of a forward contract are determined at expiration, during the life of the contract, and at initiation; describe monetary and nonmonetary benefits and costs associated with holding the underlying asset and explain how they affect the value

and price of a forward contract; define a forward rate agreement and describe its uses; explain why forward and futures prices differ. Also, students will explain how the value of a European option is determined upon expiration; explain exercise value, time value, and moneyness of an option, identify the factors that determine the value of an option and explain how each factor affects the value of an option. Finally, students will analyse the put–call parity for European options and explain the put–call–forward parity for European options and how the value of an option is determined using a one-period binomial model.

Also, based on several case studies embedded into this module, students will gain an in-depth view and understanding of how to analyse and value derivatives.

Topic 6. Fixed Income Valuation and Analysis

1. Fundamentals

1. Introduction
2. Issuers and Investors
3. Typology of Fixed Income Instruments
4. Fixed Income Instruments and Monetary Policy
5. Fixed Income Indices

2. Time Value of Money

1. Introduction
2. Time Value of Money
3. Yield Measures
4. Yield Curves
5. Term Structure
6. Pricing Fixed Income Securities

3. Measuring Risk

1. Introduction
2. Duration and Modified Duration
3. Convexity
4. Sensitivity
5. Immunisation Strategies

4. Credit Risk

1. Introduction
2. Insolvency Risk and Risk Premium
3. Rating Agencies and Credit Rating

5. Zero Coupon Bonds

1. Introduction
2. Characteristics
3. Pricing Zero Coupon Bonds

6. Bonds with Warrants

1. Introduction
2. Characteristics
3. Pricing Bonds with Warrants

7. Convertible Bonds

1. Introduction
2. Characteristics
3. Pricing Convertible Bonds

8. Callable Bonds

1. Introduction
2. Characteristics
3. Pricing Callable Bonds

9. Floating Rate Notes

1. Introduction
2. Typology of Floating Rate Notes
3. Market Characteristics
4. Pricing Floating Rate Notes

10. Mortgage-Backed Securities

1. Introduction
2. Typology of Mortgages
3. Typology of Securities

4. Principles of Securitisation
5. Pricing Mortgage-Backed Securities

11. Portfolio Management Strategies

1. Introduction
2. Active Portfolio Management
3. Passive Portfolio Management
4. Factor Model-Based Portfolio Management

After studying this module, students will be able to calculate a bond's price given a market discount rate; identify the relationships among a bond's price, coupon rate, maturity, and market discount rate (yield-to-maturity); define spot rates and calculate the price of a bond using spot rates; describe and calculate the flat price, accrued interest, and the full price of a bond; determine the annual yield on a bond for varying compounding periods in a year; calculate and interpret yield measures for fixed-rate bonds and floating-rate notes; calculate and interpret yield measures for money market instruments; define and compare the spot curve, yield curve on coupon bonds, par curve, and forward curve; define forward rates and calculate spot rates from forward rates, forward rates from spot rates, and the price of a bond using forward rates, and finally, compare, determine, and interpret yield spread measures.

Finally, several different case studies, which are designed to portray the most recent developments in global financial markets, will provide students with a practitioner's in-depth assessment of how to analyse and ultimately value fixed income securities.

Topic 7. Portfolio Management

1. Fundamentals

1. Introduction
2. Risk and Return
3. Efficient Market Hypothesis
4. Portfolio Theory
5. Capital Asset Pricing Model (CAPM)
6. Arbitrage Pricing Theory (APT)

2. Investment Policy

1. Introduction
2. Investment Objectives
3. Individual versus Institutional Investment Objectives
4. Portfolio Structure

3. Asset Allocation

1. Introduction
2. Asset Allocation Strategies

4. Asset Liability Management

1. Introduction
2. Modelling Assets
3. Modelling Liabilities
4. Funding Ratios
5. Integrated Optimisation
6. Strategy Implementation
7. Dynamic Adjustments

5. Portfolio Management in Practise

1. Introduction
2. Active versus Passive Portfolio Management
3. Managing an Equity Portfolio
4. Derivatives in Portfolio Management
5. Managing a Real Estate Portfolio
6. Alternative Assets
7. International Investments

6. Performance Measurement

1. Introduction
2. Measuring Risk and Return
3. Risk-Adjusted Performance Measures
4. Relative Performance
5. Attribution Analysis
6. Peculiarities

7. Managing Institutional Investment Companies

1. Introduction
2. Selection of Asset Managers

8. Behavioural Finance

1. Introduction
2. Rationality versus Bounded Rationality
3. Biases in Human Behaviour
4. Heuristics
5. Prospect Theory
- 9.1. Introduction

After studying this module, students will be able to describe the portfolio approach to investing; describe types of investors and their characteristics; describe defined contribution and defined benefit pension plans as well as the steps in a portfolio management process. Students will be able to determine and interpret major return measures and describe their appropriate uses; describe characteristics of major asset classes that investors consider in forming portfolios; calculate and interpret mean, variance, and covariance (or correlation) of asset returns based on historical data; explain risk aversion and its implications for portfolio selection; calculate and interpret portfolio standard deviation; describe the effect on a portfolio's risk of investing in assets that are less than perfectly correlated; describe and interpret the minimum-variance and efficient frontiers of risky assets and the global minimum-variance portfolio; explain the selection of an optimal portfolio, given an investor's utility (or risk aversion) and the capital allocation line.

Further, students will be able to describe the implications of combining a risk-free asset with a portfolio of risky assets, to compare systematic to non-systematic risk, and explain why an investor cannot expect to receive additional return for bearing non-systematic risk. Finally, students will learn how to determine and interpret beta; the capital asset pricing model (CAPM), including its assumptions, and the security market line (SML) and to calculate the expected return of an asset using the CAPM. Students will build up fundamental knowledge to understand the main concepts of ESG investment.

Finally, a series of case studies embedded into this module will illustrate a practitioner's hands-on approach on portfolio management.

Topic 8. European Regulation and Ethics

1. Fundamentals

1. Introduction
2. Objectives of Regulation
3. European Legal Framework for Financial Services
4. Decision Making Bodies in the European Union
5. Legislative Acts
6. Legislative Procedure

2. Single Market for Financial Services

1. Introduction
2. Principles of General Freedom in the European Union
3. Harmonising Legislation across the European Union
4. Financial Services Action Plan
5. Single Market Act

3. Regulating Capital Market

1. Introduction
2. Market in Financial Instruments Directive (MiFID II / MiFIR)
3. Market Abuse Directive (MAD II / MAR)
4. Regulation on Investment Funds (UCITS)

4. European Regulatory Bodies

1. Introduction
2. Evolution of Supervisory Architecture
3. European Systemic Risk Board (ESRB)
4. European System of Financial Supervisors
5. Banking Union
6. Capital Markets Union

5. Ethical Behaviour in Financial Markets

1. Introduction
2. Ethical Conduct
3. International Organisation of Securities Commissions (IOSCO)
4. Basel Committee for Banking Supervision
5. Code of Ethics for Financial Analysts

After studying this module, students will be able to recognize the definition and objectives of regulations, potential consequences of regulatory failure, and the regulatory process and importance of each step in the process. Further, students will be able to understand specific types of regulation and describe the reasons for each, understand the elements of a company's policies and procedures to ensure it complies with regulation – and potential consequences of compliance failures.

Also, after studying this module, students will be able to understand the need for ethics in the investment industry; obligations that individuals in the investment industry have vis-à-vis clients, prospective clients, employers, and co-workers. Further emphasis will be placed on discussing the benefits of ethical conduct, the consequences of conduct, which is unethical or unprofessional, and a framework for making ethically sound decisions.

Selected case studies embedded into this module will provide students with a thorough discussion of the recent state of European financial markets regulation and some food for thought concerning the role of ethics in global financial markets.



Topic 9. ESG

1. ESG - an introduction

1. ESG investment - where do we stand?
2. Definitions and developments
3. ESG strategies
4. Empirical evidence about ESG and financial performance
5. Barriers to ESG

2. Recent developments of esg integration

1. Market drivers
2. Regulatory framework - investor demands and initiatives
3. ESG reporting frameworks for companies and investors

3. Investment process chain

1. Introduction
2. Macro research and asset allocation
3. Company analysis
4. Portfolio construction
5. Trading
6. Portfolio and risk analytics
7. Compliance and reporting
8. Engagement and voting

4. Responsible investing across asset classes

1. Introduction
2. Brief reflections on individual asset classes

5. ESG integration in valuation

1. Disclosure and data source
2. Identification of ESG value drivers
3. Analysis of governance

After studying this module, the student will have the ability to identify different ESG strategies, discuss the global market developments and know the differences between important ESG definitions. They will be able to lead a discussion on the effect of ESG integration and have a basic understanding to manage the barriers and anticipate the effect of the drivers of ESG.

The student will develop the competence to interactively derive an ESG-aware strategic asset allocation taking the views and needs of different stakeholders into account. Furthermore, they will be able to distinguish the quality of non-financial information in an evolving and increasingly sophisticated context of the corporate reporting.

Finally, the student will have the ability to identify the challenge of the integration of ESG in the investment process and will be able to identify ways for ESG integration into the different steps of the investment process. Candidates wanting to acquire a more profound knowledge on ESG can enrol in the EFFAS CESGA programme which offers a comprehensive approach to this area.