

Certification Examination Detailed Content Outline	Percentage of Exam
I. FUNDAMENTALS	15%
A. Statistics and Methods	5%
1. Basic statistical measures (e.g., measures of central tendency, dispersion, variability, skewness, kurtosis)	
2. Basic statistical concepts (e.g., the normal distribution, probability, sampling from a population, significance testing)	
3. Interpretation of potential investment outcomes of statistical results from probabilistic models (e.g., Monte Carlo simulation)	
4. Correlation, regression, and multiple regression concepts, methods, and interpretation	
5. Time series and trend analysis concepts, methods, and interpretation (e.g., seasonality, mean reversion, multi-period forecasting, smoothing)	
B. Applied Finance and Economics	5%
1. Methods and concepts pertaining to calculation of time value of money (e.g., nominal and effective interest rates, compounding, discounting, rate of return, present and future value)	
2. Major areas of economic thought, including Keynesian economics, Austrian School economics, and monetarism	
3. Economic concepts and principles (e.g., supply and demand, equilibrium through graphical representation, micro- and macroeconomic theory)	
4. Monetary and fiscal policy (e.g., role of central banks, interest rates [determination of, nominal and real], yield spreads and curve, velocity of money, taxation, government spending)	
5. Stages of a business/economic cycle, including expansion, peak, contraction, and trough; price level environments/ concepts, including inflation, deflation, stagnation; business cycle dating; and the effect of monetary and fiscal policy on business cycles	
6. Macroeconomic measurements, including leading, coincident, and lagging gross domestic product (GDP) indicators and price level indicators	
7. Demographic effects on economies	
8. Global economics, theory, and trade (e.g., comparative and absolute advantage; balance of payments; roles of the International Monetary Fund, World Bank, and World Trade Organization)	
9. Global currency valuation (global exchange-rate system, spot and forward exchange rates, dollarization, currency pegs, fixed and floating rates, reject purchasing power parity, special drawing rights)	
C. Global Capital Markets History and Valuation	5%
1. Interest rates and inflation in developed and emerging markets, including history of government and corporate defaults and the gold standard	
2. Equity valuation in developed, emerging, and frontier markets (e.g., cyclical and secular bull and bear markets, extremes of equity valuation over time and within various secular market cycles)	
3. Linkages between economic growth and capital market return	
4. Equity and fixed income returns for developed and emerging markets (e.g., historical equity and fixed income returns for secular market cycles, secular and cyclical equity market cycles, methods for developing equity, historical correlations of equities, fixed income, and alternatives)	

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II. INVESTMENTS	20%
A. Investment Vehicles	4%
1. Differences between investment vehicles (e.g., exchange-traded products [ETPs], mutual funds, closed-ends, mandates, separately managed accounts [SMAs], unit investment trusts, individual securities, annuities)	
2. Concepts in evaluating investment vehicles, including the due diligence of their distinct structures, holdings, tax treatment, and performance metrics	
3. Trends in the use of exchange-traded products (ETPs) and the impact of their wide adoption on markets	
4. Cost, transparency, and liquidity of various investment vehicles (e.g., exchange-traded products [ETP], limited partnerships [LP], fund of funds, mutual funds, closed-end funds, annuities)	
B. Equity	5%
1. Equity characteristics by size (capitalization), style (growth or value), volatility (defensive vs. cyclical), capital structure (preferred stock), domestic vs. international, developed vs. emerging vs. frontier, Global/American Depositary Receipts (GDRs/ADRs) vs. ordinary shares	
2. Equity valuation methods (i.e., security analysis, economic analysis, fundamental analysis)	
3. Global indices of equity (e.g., price-weighted, cap-weighted, fundamentally weighted, equal-weighted)	
4. Potential benefits and risks of international equity diversification in a portfolio	
5. Changes in correlations of investment returns over time across sectors, countries, and regions	
6. Equity market valuation methods (i.e., price-earnings ratio [P/E ratio], growth rate, book-to-market ratio, Q ratio)	
7. Individual equity security analysis (e.g., fundamental analysis, valuation techniques, screening techniques)	
C. Fixed Income	5%
1. Types of fixed income securities (e.g., government, municipal, corporate, money-market instruments, convertibles, high-yield)	
2. Characteristics of fixed income investments including basic features (priority of claims with capital structure), coupon structures, payment methods, and options based on several parameters (i.e., quality; maturity, duration, and convexity; issue size; fixed or floating rate coupons; call features; yield to maturity [YTM] and yield to worst [YTW])	
3. Pricing of fixed income securities (e.g., relative rates, discounts and premiums, inflation-adjusted valuation, duration)	
4. Common fixed income indices and benchmarks	
5. Potential benefits and risks in international fixed income diversification	
6. Individual fixed income security analysis (e.g., fundamental analysis, valuation techniques, screening techniques)	

D. Alternative Investments	2%
1. Distinction between alternative investment strategy (e.g., long-short, merger arbitrage) and structure (e.g., limited partner [LP], mutual fund, exchange-traded products [ETP])	
2. Differences between liquid and illiquid strategies	
3. Differences in alternative investments (e.g., real estate, commodities, private equity, venture capital, private debt, infrastructure), characteristics, risks, tax ramifications, and expected returns	
4. Alternative investment structural considerations (e.g., transparency, liquidity, leverage, compensation/fee structures; significance of third-party custodianship and independent auditing; funds of funds; heightened due diligence; hedge fund vs. marketable vs. redeemable security structures)	
5. Use of alternative investment strategies in asset allocation design	
6. Concepts in evaluating alternative investment strategies (e.g., absolute return, arbitrage, long/short, managed futures, dedicated short bias, market neutral, event-driven, reinsurance, global macro)	
7. Alternative investment indices and benchmarks	
8. Share classes and their implications for various investment vehicles	
E. Options, Futures, and Other Derivatives	2%
1. Characteristics and concepts regarding options (e.g., puts, calls, and put-call parity; protective puts, put writing, covered calls, straddles, spreads, and collars; index options, futures options, and foreign currency options; options-like securities, including callable bonds, convertibles, and warrants)	
2. Futures contracts, pricing, and valuation and the use of other derivatives in a portfolio, including futures contract basics; futures markets strategies; spot prices, spreads, and forward vs. futures pricing; and use of other derivatives in a portfolio	
3. Differences between hedging and speculating	
F. Real Assets	2%
1. How specialty assets perform differently from traditional assets	
2. Types of investment market access (e.g., direct and indirect ownership, listed and unlisted)	
3. Real asset market valuation methods, cycles, and dynamics	
4. How real estate, infrastructure, commodities, and other real assets fit into client overall asset allocation (including different sectors, benchmarking, and investment strategies)	
III. PORTFOLIO THEORY AND BEHAVIORAL FINANCE	20%
A. Portfolio Theories and Models	6%
1. Modern portfolio theory (MPT) assumptions, key aspects and criticisms of MPT, capital allocation line, positive diversification effects, and the Black-Litterman model for portfolio allocation	
2. Efficient market hypothesis: weak, semi-strong, and strong	
3. Capital asset pricing model (CAPM), including systematic (market risk), non-systematic (idiosyncratic risk) and security market line (SML)	
4. Arbitrage pricing theory (APT) explanatory models regions	
5. Downside risk assessment using post-modern portfolio theory (Post-MPT) theories, methodologies, and strategies	
B. Behavioral Finance Theory	6%
1. Cognitive biases and mental heuristics related to existing beliefs and information processing concepts	
2. Biases and mental heuristics (e.g., loss aversion, overconfidence, self-control, status quo, endowment, regret aversion, affinity)	
3. Portfolio construction based on behavioral bias	
4. Common behavioral investor types (e.g., preservers, followers, independents, accumulators) and how to work with each effectively in practice	
5. Methods of overcoming cognitive and emotional bias	

C. Investment Philosophies and Styles	5%
1. Factor-based indexing (e.g., smart beta, fundamental indexing), including factors (Fama and French, etc.)	
2. Benefits/risks of multi- and single- factor portfolios	
3. Factor-based investing in active management and risk management	
4. Responsible investing (e.g., socially responsible investing [SRI]; environmental, social, and governance [ESG]; sustainable; impact) benefits/risks of strategies; history, trends, and the challenges investors face when implementing such a strategy)	
5. Tax-aware investment strategies (e.g., tax efficiency, deferral vs. exemption, implementation of tax-efficient strategies, location)	
6. Investment styles (e.g., active, passive) and the conventional rationale for each	
D. Tools and Strategies	3%
1. Market trends (time cycles), continuation, and corrections	
2. Technical analysis (e.g., Dow Theory, trend analysis, intermarket analysis, momentum indicators)	
3. Tactical and dynamic asset allocation strategies	
IV. Risk and Return	20%
A. Risk	6%
1. Tools and techniques to leverage investments in a portfolio, including margin	
2. Concepts of risk and uncertainty	
3. Types of risk (e.g., loss of principal, purchasing power, liquidity, geopolitical, currency, sovereign, interest rate, credit, reinvestment, shortfall, sequencing)	
B. Risk Measurements	6%
1. Knowledge of statistical concepts and metrics related to risk (e.g., standard deviation, tail risk, downside risk, beta)	
2. Differences between volatility and downside risk	
C. Performance Measurement and Attribution	8%
1. Investment return calculation (e.g., income, capital appreciation, absolute and relative performance, rolling-period vs. annual returns, time-weighted and dollar-weighted rates of return, arithmetic and geometric average returns)	
2. Strengths and weaknesses of different types of risk-adjustment analysis (e.g., alpha, R-squared coefficient)	
3. Benchmarking methods (e.g., synthetic benchmarks, using indexes, attributes of effective benchmarks, use of peer groups, customization)	
4. Attribution analysis methods, including scatter grams and floating bar charts, returns-based and holdings-based, and sources of return and risk	
5. Universe biases (e.g., survivorship, reporting bias)	
V. Portfolio Construction and Consulting Process	25%
A. Investments & Wealth Institute Code of Professional Responsibility	4%
1. Investments & Wealth Institute Code of Professional Responsibility	
B. Client Discovery	3%
1. Investment management models such as goals-based investment management (including accumulation and decumulation) and liability-driven strategies (e.g., portfolio immunization, cash-flow matching)	
2. Relationship between time horizon and expected return vs. terminal value result of investment management models	

C. Investment Policy	5%
1. Asset allocation methodology (e.g., spending policy and its implications on asset allocation, strategic vs. tactical asset allocation, core and satellite strategy, total return)	
2. Client-specific concepts to cover in an investment policy statement (e.g., goals and objectives, risk tolerance, time horizon, asset class interest, asset allocation, diversifying concentrations, tax concerns, liquidity, target rate of return)	
3. Investment-related concepts to cover in an investment policy statement (e.g., investment and tax management strategies, rebalancing approach, passive to active spectrum, location of assets)	
4. Governance and ethics-related concepts to cover in an investment policy statement (e.g., liability policy, disclosures, duties and responsibilities such as proxy voting and monitoring requirements)	
D. Portfolio Construction	5%
1. Risk budgeting, including risk factors, traditional asset-based and risk-based asset allocation approaches, and risk parity investment strategies	
2. Uses/advantages/disadvantages of Value-at-Risk (VaR) and Monte Carlo simulations of investment management models	
3. Scenario and stress testing methodologies (e.g., historical simulation and prospective simulation)	
E. Manager Search, Selection, and Monitoring	5%
1. Components of manager due diligence	
2. Active share	
3. Manager styles and asset class structures	
4. The benefits and caveats of manager structuring including a multi-manager approach	
F. Portfolio Review and Revisions	3%
1. Rebalancing methodologies and considerations	
Totals	100%

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