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CERTIFIED INVESTMENT RESEARCH ANALYST

Syllabus

Module 1: The Investment Research Profession

- Role and purpose of investment research in capital markets.
- Buy-side, sell-side and independent research.
- Equity, credit, quantitative, macro and thematic research.
- Responsibilities, competencies and qualities of a research analyst.
- The research workflow: idea generation, analysis, valuation, recommendation and monitoring.
- Coverage universe, initiation of coverage and maintenance of coverage.
- Interaction with fund managers, sales, traders, companies and investors.
- Research careers in brokerages, asset managers, PMS, AIFs, family offices, banks and rating agencies.
- Evolution of research: unbundling, independent research and AI-assisted research.

Module 2: Ethics, Conduct and Research Regulation

- Ethical foundations of investment research.
- Independence and objectivity of research.
- Conflicts of interest: identification, management and disclosure.
- SEBI (Research Analysts) Regulations, 2014: registration, qualification and conduct.
- Disclosure requirements in research reports.
- Restrictions on trading by research analysts.
- Separation of research from investment banking and other activities.
- Material non-public information and insider trading regulations.
- Fraudulent and unfair trade practices.
- Research on social media and digital platforms.
- Record-keeping, compliance and audit of research.
- Case studies in research misconduct.

Module 3: Indian and Global Financial Markets

- Structure of the Indian financial system.

- Primary and secondary markets.
- Stock exchanges, clearing corporations and depositories.
- Market participants: FPIs, DIIs, mutual funds, insurers, PMS, AIFs and retail investors.
- Trading, settlement and market microstructure.
- Market indices: construction, methodology, rebalancing and uses.
- Major global equity and bond markets and indices.
- Depository receipts: ADRs, GDRs and IDRs.
- GIFT IFSC and international market access.
- Integration of Indian markets with global markets.
- Recent market reforms and developments.

Module 4: Regulatory Framework for Capital Markets

- Evolution of capital market regulation in India.
- Securities and Exchange Board of India (SEBI).
- Reserve Bank of India (RBI).
- Insurance Regulatory and Development Authority of India (IRDAI).
- Pension Fund Regulatory and Development Authority (PFRDA).
- International Financial Services Centres Authority (IFSCA).
- Ministry of Finance and the Ministry of Corporate Affairs.
- Listing obligations and disclosure requirements.
- Takeover, buyback and delisting regulations.
- Foreign portfolio investment framework.
- Corporate governance requirements for listed companies.

Module 5: Economics for Investment Analysis

- Microeconomic foundations: demand, supply, costs and market structures.
- Macroeconomic indicators: GDP, inflation, employment and industrial output.
- Business cycles and their impact on sectors and earnings.
- Monetary policy, interest rates and liquidity.
- Fiscal policy, government borrowing and the Union Budget.
- Balance of payments, exchange rates and capital flows.
- Commodity prices and their impact on the Indian economy.
- Global macroeconomic linkages and geopolitical risk.
- Reading economic data and central bank communication.
- Building a top-down macro view for investment research.

Module 6: Quantitative Methods for Investment Research

- Time value of money: present value, future value, annuities and perpetuities.
- Return measures: holding period, annualised, time-weighted and money-weighted returns.
- Descriptive statistics: central tendency, dispersion, skewness and kurtosis.
- Probability concepts and probability distributions.
- Sampling, estimation and confidence intervals.
- Hypothesis testing.
- Correlation and regression: simple and multiple regression.
- Time-series analysis: trends, seasonality, random walks and mean reversion.
- Simulation and scenario analysis.
- Matrix algebra for portfolio analysis.
- Optimisation and calculus applications in finance.

Module 7: Financial Reporting and Accounting Standards

- Financial reporting framework in India: Companies Act, 2013 and Ind AS.
- Comparison of Ind AS with IFRS and US GAAP.
- Revenue recognition.
- Inventories, property, plant and equipment and intangible assets.
- Leases.
- Financial instruments and expected credit loss.
- Income taxes and deferred tax.
- Business combinations, consolidation and associates.
- Employee benefits and share-based payments.
- Segment reporting and related-party disclosures.
- Reading the annual report, notes to accounts and auditor's report.

Module 8: Financial Statement Analysis

- Business activities and the three financial statements.
- Analysis of the income statement.
- Analysis of the balance sheet.
- Analysis of the cash flow statement.
- Statement of changes in equity.
- Ratio analysis: profitability, efficiency, liquidity, solvency and returns.
- DuPont analysis and return on capital.
- Working capital and cash conversion cycle.

- Common-size and trend analysis.
- Analysis of growth and sustainability of earnings.
- Peer comparison and benchmarking.

Module 9: Earnings Quality and Forensic Accounting

- Quality of earnings and quality of cash flows.
- Accounting choices and estimates.
- Aggressive revenue recognition and expense capitalisation.
- Off-balance-sheet items and contingent liabilities.
- Related-party transactions and governance red flags.
- Auditor changes, qualifications and resignations.
- Promoter pledging, cross-holdings and group structures.
- Beneish M-score, Altman Z-score and Piotroski F-score.
- Adjustments to reported financial statements.
- Case studies of accounting failures in India and globally.

Module 10: Industry and Competitive Analysis

- Industry classification and sector frameworks.
- Industry life cycle.
- Porter's five forces.
- Value chain analysis.
- Market sizing: top-down and bottom-up.
- Key industry drivers and leading indicators.
- Regulatory and policy impact on industries.
- Cyclical, defensive and growth industries.
- Disruption, technology and changing industry structure.
- Writing an industry report.

Module 11: Company and Business Analysis

- Business model analysis.
- Competitive advantage and economic moats.
- Management quality and capital allocation.
- Corporate strategy and execution track record.
- Promoter and ownership analysis.
- Corporate governance assessment.

- Analysis of earnings calls, investor presentations and disclosures.
- Channel checks, primary research and expert interviews.
- Site visits and management meetings.
- SWOT analysis and key monitorables.

Module 12: Financial Modelling and Forecasting

- Principles of building a financial model.
- Model structure, assumptions and integrity checks.
- Revenue build: volume, price and mix.
- Cost, margin and operating leverage forecasting.
- Capital expenditure, depreciation and working capital.
- Debt schedule and interest.
- Integrated three-statement model.
- Scenario and sensitivity analysis.
- Earnings revisions and consensus estimates.
- Common modelling errors and best practices.

Module 13: Equity Valuation: Intrinsic Methods

- Fundamental principles of valuation.
- Intrinsic value versus market price.
- Cost of equity and cost of capital.
- Dividend discount models.
- Free cash flow to the firm and free cash flow to equity.
- Terminal value: growth and exit-multiple methods.
- Residual income, EVA and MVA.
- Sum-of-the-parts valuation.
- Real options in valuation.
- Valuation of distressed companies.
- Reverse DCF and market-implied expectations.

Module 14: Equity Valuation: Relative and Special Situations

- Relative valuation and peer selection.
- Price multiples: P/E, P/B, P/S and dividend yield.
- Enterprise value multiples: EV/EBITDA, EV/Sales and EV/Invested Capital.
- PEG ratio and growth-adjusted multiples.

- Historical, forward and normalised multiples.
- Holding company discounts.
- Valuation of IPOs and newly listed companies.
- Mergers, acquisitions, demergers and buybacks.
- Control premium and minority discount.
- Target price setting and rating frameworks.

Module 15: Sector-Specific Research

- Banks: NIM, asset quality, credit cost, capital and P/ABV valuation.
- NBFCs and housing finance companies.
- Insurance companies: embedded value and VNB.
- Asset managers, brokers and capital market companies.
- Information technology and services.
- Consumer and retail.
- Pharmaceuticals and healthcare.
- Automobiles and auto components.
- Metals, mining, oil and gas.
- Infrastructure, real estate and cement.
- Telecom, media and internet businesses.
- Utilities and power.

Module 16: Fixed Income Research

- Bond basics, characteristics and markets.
- Government securities, corporate bonds and money market instruments.
- Bond pricing, yields and yield to maturity.
- Term structure of interest rates and yield curve analysis.
- Duration, convexity and immunisation.
- Credit analysis and credit spreads.
- Credit ratings and rating agencies.
- Interest rate outlook and macro drivers.
- Bond research reports and recommendations.

Module 17: Derivatives for Research Analysts

- Forwards, futures, options and swaps.
- Equity and index derivatives in India.

- Option pricing: binomial and Black-Scholes models.
- Option Greeks and implied volatility.
- Open interest, put-call ratio and derivatives data as signals.
- Hedging and risk management with derivatives.
- Currency and interest rate derivatives.
- Derivatives in research and investment strategy.

Module 18: Alternative Investments

- Overview of alternative investments.
- Alternative Investment Funds: categories and regulation.
- Private equity and venture capital.
- Private credit.
- REITs and InvITs.
- Specialised Investment Funds.
- Real estate as an investment.
- Commodities and precious metals.
- Hedge fund strategies.
- Valuation and due diligence of alternative investments.

Module 19: Technical and Quantitative Analysis

- Principles, uses and limitations of technical analysis.
- Dow Theory and trend analysis.
- Chart patterns and trend reversals.
- Technical indicators: moving averages, RSI, MACD and Bollinger Bands.
- Volume, breadth and market sentiment indicators.
- Elliott Wave and Fibonacci analysis.
- Factor investing: value, momentum, quality, size and low volatility.
- Quantitative screening and stock selection.
- Backtesting and its pitfalls.
- Combining fundamental, technical and quantitative views.

Module 20: Risk, Return and Market Efficiency

- Definition and types of risk.
- Measurement of risk and return.
- Capital Asset Pricing Model and the Security Market Line.

- Arbitrage Pricing Theory and multifactor models.
- Efficient Market Hypothesis: weak, semi-strong and strong forms.
- Random walk theory and predictability of returns.
- Market anomalies and inefficiencies.
- Empirical evidence from Indian and global markets.

Module 21: Behavioural Finance

- Foundations of behavioural finance.
- Heuristics and cognitive biases.
- Emotional biases.
- Analyst biases: anchoring, confirmation, overconfidence and herding.
- Market bubbles, crashes and sentiment cycles.
- Investor behaviour in Indian markets.
- Debiasing techniques for analysts and investment committees.

Module 22: Portfolio Theory and Construction

- Principles of portfolio management.
- Investment objectives and constraints.
- Asset allocation: strategic, tactical and dynamic.
- Diversification and correlation.
- Markowitz mean-variance optimisation and the efficient frontier.
- Sharpe's single-index model and optimal portfolio.
- Beta, systematic risk and portfolio selection.
- Portfolio construction for equity, debt and multi-asset mandates.
- Portfolio revision, rebalancing and transaction costs.
- Managing portfolios for individuals, families and institutions.

Module 23: Portfolio Performance Evaluation

- Performance measurement and benchmarking.
- Sharpe ratio, Treynor ratio and Jensen's alpha.
- Information ratio, tracking error and Sortino ratio.
- Performance attribution.
- Risk-adjusted performance of mutual funds, PMS and AIFs.
- Global Investment Performance Standards.

Module 24: ESG and Sustainability Research

- ESG investing approaches.
- Material ESG factors by sector.
- Business Responsibility and Sustainability Reporting (BRSR).
- ESG ratings and their limitations.
- Climate risk and transition risk.
- Governance analysis in Indian companies.
- Integrating ESG into valuation and recommendations.
- Greenwashing risks.

Module 25: Data, Technology and AI in Research

- Financial databases and research platforms.
- Company filings, exchange data and alternative data.
- Advanced Excel for analysts.
- Python for data analysis and research automation.
- Data visualisation for research.
- Natural language processing of filings and earnings calls.
- Generative AI tools for research: uses and limitations.
- Verification, data integrity and responsible use of AI in research.

Module 26: Research Report Writing and Communication

- Types of research reports: initiation, update, results, thematic and sector reports.
- Structure of a research report.
- Investment thesis, catalysts and key risks.
- Writing clearly and persuasively.
- Presenting financial data, charts and tables.
- Rating, target price and recommendation rationale.
- Mandatory disclosures and disclaimers.
- Checklist for a high-quality research report.
- Presenting a stock pitch.
- Defending research before an investment committee.
- Communicating research to institutional and retail investors.