SECURITY ANALYSIS & PORTFOLIO MANAGEMENT

TYPE OF COURSE: New | Elective | UG/PG

COURSE DURATION: 12 Weeks (26 Jul 21 - 15 Oct 21)

EXAM DATE: 24 Oct 2021

PRE-REQUISITES: Senior School Mathematics

INTENDED AUDIENCE: The audience would comprise of those desirous of get acquainted with the intricacies of financial securities valuation, their strategical investment in structured portfolios and their applications as investment avenues. The learners would be able to appreciate the nuances that have led to the origin and extensive development of this field of knowledge.

INDUSTRIES APPLICABLE TO: This course will attract immense recognition in the entire financial services industry including banks, stock & commodity exchanges, stock & commodity brokers, portfolio managers, investment bankers, market regulators etc. Those employed in corporate finance shall also find it valuable as it would add to their versatility. Academicians will find it a gateway to further work in related areas.

COURSE OUTLINE:
The proposed course aims to provide valuable insights into the underlying financial nuances involved in investment management holistically. The target audience is the student community who have taken some mathematics courses at the secondary level and are pursuing graduate courses in finance or management with specializations in finance and/or risk management.

ABOUT INSTRUCTOR: Jatinder Pal Singh, is a Professor at the Indian Institute of Technology Roorkee. He is also a postgraduate in Physics, Mathematics and a graduate in Law & Operational Research. After about 10 years of corporate experience, he joined the Department of Management Studies, IIT Roorkee in 2001. He is presently Professor (HAG) in the said department. His research interests are in econophysics, mathematical finance, financial risk management, international finance and corporate governance.

COURSE PLAN:


Week 2: Concept & Measures of Risk and Return, Portfolio Risk & Return, Reduction of Risk through Diversification.


Week 5: Company Analysis, Publicly accessible Corporate Information, Tools of Financial Statement Analysis.

Week 6: Financial Statement Analysis including Impact of Changes in Accounting Policies, Depreciation Methods, Revaluation of Fixed Assets, Foreign Exchange Transactions, Amortization of Preliminary and Preoperative Expenses, R&D Expenditure, Valuation of Inventory, Treatment of Leases etc.

Week 7: Measures of Bond Returns, YTM & Holding Period Yields, Bond Valuation, Spot & Forward Interest Rates, Term Structure & Yield Curves, Interest Rate Sensitivities, Duration & Elasticities. Key Rates & Bucket Rates.


Week 9: Portfolio optimization in the mean variance framework: two security case, various combinations of risky & risk-free assets, implications of the results, concept of efficient frontier. Concept of Utility & Indifference Curves, Optimal Portfolio Selection.

Week 10: The multi-security case of portfolio optimization, Tracing of the full efficient frontier with/without the existence of risk-free asset.

Week 11: Single Index & Capital Asset Pricing Model, Systematic and Unsystematic Risk, Beta of a Portfolio, CML & SML, Arbitrage Pricing Theory, Comparison of CAPM and APT, Applications of APT.