INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
Dundigal - 500 043, Hyderabad, Telangana

COURES CONTENT

FINANCIAL ANALYTICS							
IV Semester: MBA							
Course Code	**Category**	**Hours / Week**			**Credits**	**Maximum Marks**		
		L	**T**	**P**	**C**	**CIA**	**SEE**	**Total**
CMBD49	**Elective**	4	-	-	4	40	60	100
Contact Classes: 45	**Tutorial Classes: Nil**	**Practical Classes: Nil**				**Total Classes: 45**		
Prerequisite: Financial Management								

I. COURSE OVERVIEW:

Financial Analysis and Valuation course equip participants with essential tools for evaluating financial statements, understanding time value of money, assessing risk and return, and making informed capital budgeting decisions. Participants will delve into equity and bond valuation, exploring advanced techniques and utilizing spreadsheets for practical applications.

II.OBJECTIVES:

The students will try to learn:
I.   The various aspects in financial analytics.
II.   The time value money, risk and return aspects.
III.   The various capital budgeting techniques.
IV.   The different aspects of equity valuation and bond valuation.

III. COURSE OUTCOMES:

At the end of the course students should be able to:

CO1   Discuss the techniques such as horizontal and vertical analysis, trend analysis, and ratio analysis.

CO2   Explore risk and return metrics, including holding period returns, standard deviation, and beta. Apply spreadsheet tools for practical calculations.

CO3   Illustrate the capital budgeting techniques such as payback period, net present value, internal rate of return, and profitability index.

CO4   Apply decision trees, cost of capital, and advanced capital budgeting techniques using spreadsheets.

CO5   Demonstrate the portfolio mean and variance, Capital Asset Pricing Model (CAPM), and beta estimation.

CO6   Evaluate the bond valuation concepts, duration, immunization strategies, and modeling the term structure.

IV. COURSE CONTENT:

MODULE-I-Techniques of Financial Statement (09)
Horizontal, vertical analysis, trend analysis, ratio analysis, liquidity, profitability, solvency and turnover ratio, valuation of ratios, statement of cash flow, classification of cash flow, computing net cash flow: operating, investing and financing activities. Reporting and interpretation using spreadsheet.

MODULE -II-Time Value of Money and Risk and Return (09)
Future value: simple, compound interest and annuity, present value: discounted, annuity, equated loan amortization, perpetuity using spreadsheets. **Risk and return:** holding period returns, arithmetic mean vs geometric mean, risk: standard deviation, coefficient of variation, beta, covariance of stock.

MODULE -III-Capital Budgeting Techniques (09)
Payback period, accounting rate of return, net present value, internal rate of return, profitability index, decision tree, cash flow in capital budgeting, cost of capital.

Advance capital budgeting techniques, adjusted present value approach, competing project risk using spreadsheets.

MODULE -IV-Equity Valuation (09)
Calculation of portfolio mean and variance, capital asset pricing model (capm), variance: covariance matrix, estimating beta and security market line. Industry analysis, economic analysis and technical analysis in stock, real option in capital budgeting.

MODULE -V-Bond Valuation (09)
Duration, duration of bond with uneven payments, immunization strategies, modeling the term structure, calculating expecting bond return in a single and multi-period framework, semi-annual transition matrix, computation of bond beta.

V. TEXT BOOKS:
1. Sheeba Kapil, Financial Valuation and Modeling, Wiley, 1e, 2022.
2. R. Narayanaswamy, Financial Accounting-Managerial Perspective, PHI, 7e, 2022.
3. Timothy Mayes, Financial Analysis with MS Excel, Cengage, 7e, 2013.
4. N R Parasuraman, Financial Management-step by step approach, Cengage, 1e, 2014.

VI. REFERENCE BOOKS:
1. Simon Bennings, Financial Modeling-Using Excel, MIT Press, Camberidge,3e
2. Vijay Gupta, Financial Analysis using Excel, VJ Books Inc, Canada.

VII. WEB REFERENCES:
1. https://bookboon.com/en/derivative-markets-an-introduction-ebook
2. https://en.wikipedia.org/wiki/Book:Financial_Derivatives

VIII. E-TEXT BOOKS:
1. http://www.pondiuni.edu.in/sites/default/files/downloads/Financial-analytics-260214.pdf
2. http://down.cenet.org.cn/upfile/10/2007188195141.pdf
3. http://polymer.bu.edu/hes/rp-hull12.pdf
4. https://www.amazon.in/dp/b01ffrtzw6/ref=cm_sw_r_apan_glt_t3gt8dys9dptke0h5t.
5. https://www.amazon.in/dp/b00k7yg27o/ref=cm_sw_r_apan_glt_fj3z3g106sd6gwzh0y.
6. https://ebooks.lpude.in/commerce/mcom/term_4/dcom510_financial_analytics.pdf