

## FE502: BUSINESS ANALYSIS AND VALUATION

No. of credits: 03

### ➤ COURSE OBJECTIVE:

The course is designed for students with career interests in equity research, investment banking and private equity. The objective of the course is to understand and learn the most widely used and adapted Corporate Valuation theory and practice. The course aims to develop valuation related conceptual and financial modeling skills among students to decide, analyze, and execute corporate valuation assignments using quantitative and qualitative techniques. The course is practical oriented and demand maximum student participation.

### ➤ COURSE DESCRIPTION:

The objective of this course is to learn basic firm and equity valuation methods. The course combines both accounting and finance concepts into a practical framework for valuing firms; debt and equity. The first half of the course begins with covering a wide range of valuation techniques like Discounted Cash Flow Methods, Market Multiples or Relative Valuation Methods, Sum-of-the-Parts Valuation, Economic-Value Added, and Adjusted Present Value (APV), M&A Valuation, and other related theories. The second half of the course will constitute the basic and advanced financial modeling for valuation on spreadsheets or Excel.

### ➤ COURSE STRUCTURE AND PEDAGOGY:

*The course is structured into seven modules:*

1. Corporate Valuation Introduction: Theoretical frameworks, DCF & Relative Methods
2. Applied Corporate Finance: Capital Structure Analysis, and calculation of Cost of Capital
3. DCF Valuation: Forms of DCF, computation and forecasting of Free Cash Flows
4. Relative Valuation: Concepts of Market Multiples, viz P/E,P/B,EV multiples
5. Value Drivers: APV, EVA, CFROI, Financial Ratios and Statement Analysis
6. Financial Modelling (Equity Research): DCF Models and Relative Techniques

7. Financial Modelling (Mergers & Acquisitions): Comparables Valuation, Transactions Valuation, Basic Leveraged-Buyout Model (LBO), and Measuring Synergy Effects.

|                |  |  |   |  |   |  |   |
|----------------|--|--|---|--|---|--|---|
| <b>Modules</b> | <b>Valuation Introduction</b>  | <b>Applied Corporate Finance</b>   | <b>Applied Corporate Finance</b>  | <b>DCF Valuation</b>   | <b>DCF Valuation</b>  | <b>DCF Valuation</b>   | <b>Relative Valuation</b>   |
| <b>Topic</b>   | Introductory Overview: Brief course outline and basics rationale of corporate valuation                    | Capital Structure Analysis: Concept of Optimal Capital Structure, Levered and Unlevered Beta | Cost of Capital or Discounting Rate: Concept of Cost of Equity and Cost of Debt, Computation of WACC Case Study - Nike Inc. | Basic concepts of Capital Budgeting and DCF. Various forms and stages of DCF         | Computation and Forecasting of Free Cash Flows: Analyzing historical performance and forecasting future performance | A case study discussion in class   | Concepts of Market Multiples: P/E,P/B,P/Sales, P/Cash Flow, EV multiples - EV/Sales, EV/EBITDA, EV/EBIT |
| <b>Modules</b> | <b>Relative Valuation</b>  | <b>Value Drivers</b>   | <b>Special Cases In Valuation</b>   | <b>Financial Modelling (Basic Module)</b>  | <b>Financial Modelling (Equity Research)</b>  | <b>Financial Modelling (Equity Research)</b>   | <b>Financial Modelling (Equity Research)</b>  |
| <b>Topic</b>   | Application of Market Multiples: P/E,P/B,P/Sales, P/Cash Flow, EV multiples - EV/Sales, EV/EBITDA, EV/EBIT | APV, EVA, CFROI, Financial Ratios and Statement Analysis                                     | Brief Idea on :Valuation of Loss-Making Companies, Private Companies, Valuation of an IPO, and Sum-of-the Parts             | Introduction to Basic Excel Functions and Modelling of Financial Statements & Ratios | An introduction to real Equity Research Reports   | Forecasting and Building a DCF Model<br><br>Case Study - a live DCF valuation of an Indian Company | Forecasting and Building a DCF Model<br><br>Case Study - a live DCF valuation of an Indian Company      |
| <b>Modules</b> | <b>Financial Modelling (Equity Research)</b>   | <b>Financial Modelling (Equity Research)</b>   | <b>Financial Modelling (Equity Research)</b>  | <b>Financial Modelling (Mergers &amp; Acquisitions)</b>                              | <b>Financial Modelling (Mergers &amp; Acquisitions)</b>   | <b>Financial Modelling (Mergers &amp; Acquisitions)</b>  | <b>Financial Modelling (Mergers &amp; Acquisitions)</b>   |

|  |  |   |   |   |  |   |   |
|--|--|---|---|---|--|---|---|
|  |  |   |   | <b>&amp; Acquisitions)</b>                                      |  |   | )   |
|  | Building and using Relative Valuation Technique Case Study - a live relative valuation of the Indian Company | A detailed review of the Valuation Model followed by a valuation class exercise for the students. | A valuation project followed by a group presentations | An introduction to real Mergers & Acquisitions Valuation Models | Developing a Comparables Company Valuation Model With an Live Case Study Example | Developing a Transactions Comparables Company Valuation Model With an Live Case Study Example | Introduction and Developing a basic LBO Valuation Model With an Live Case Study Example |

➤ **COURSE GRADING:**

The course evaluation will be based on active class participation, case studies, presentations and project reports, and finally an end-term examination.

| <b>Component</b>                | <b>Weight</b> |
|---------------------------------|---------------|
| Class Participation             | 15%           |
| Case Study Presentations        | 15%           |
| Project Reports                 | 20%           |
| Mid-Term & End Term Examination | 50%           |
| <b>Total</b>                    | <b>100%</b>   |

➤ **RECOMMENDED TEXT BOOKS:**

1. Aswath Damodaran, *Investment Valuation* (Wiley)
2. Copeland, Koller, & Murrin, *Valuation: Measuring and Managing the Value of Companies* (McKinsey & Co.)
1. Palepu, Healy, Bernard, *Business Analysis and Valuation*
2. Ross, Westerfield, and Jaffe, *Corporate Finance* (Tata-Mcgraw Hill)
3. Simon Benninga, *Financial Modeling* (E-copy)

## FE501: PRINCIPLES OF COMMERCIAL BANKING

No. of credits: 03

### ➤ COURSE OBJECTIVES:

The purpose of the course is to

1. build vocabulary and make the student comfortable with the terminology of banking.
2. provide an understanding of the current environment of the banking industry
3. Help the student become a better consumer of the banking services
4. Introduce the student to planning, analysis and decision making process of an individual commercial bank

### ➤ COURSE OUTLINE:

unit 1: Origin, functions of Bank, types of Banks- Pvt. Banks, Nationalised Banks, Foreign Banks, RBI, Coop- Banks, SBI, New generation Banks , central banking and banking sector reforms

unit 2: Interest Rates, Banking and the financial sector

Unit 3: Banking functions and retail banking

Unit 4: Banks financial statements, Bank liabilities, assets, income statement of Indian banks, KPI's for banks and off balance sheet growth.

Unit 5: Reserve requirement , sources and uses of banking funds

Unit 6: Capital Adequacy : Constituents of regulatory capital, Basel II, Implementation of the the Basel accord, assessing management information with respect to capital CRR, SLR

Unit 7: Profitability: Importance, Income statement composition, Profitability indicators, Profitability ratio analysis

Unit 8: Management of Non performing assets by banks and risk management in banks

➤ **EVALUATION COMPONENTS:**

The overall course grade will be as follows:

|                                       |     |
|---------------------------------------|-----|
| Class Participation                   | 10% |
| Projects and case study presentations | 15% |
| Class tests                           | 15% |
| End term test                         | 60% |

➤ **REPORTS AND CASE STUDIES:**

1. Narasimham Committee Report I
2. Narasimham Committee Report II
3. Tarapore Committee Report
4. Jayanth Varma's Suggestions to Narasimham Committee Report
5. McKinsey Report on Indian Banking Sector 2010
6. Customer experience Management- A case study of an Indian Bank
7. Vijaya Bank turnaround case
8. ICICI Bank- a case study
9. The case of a global bank
10. Case of Bank of Madura Merger with ICICI Bank

➤ **PROJECT STUDY:**

Application of Performance appraisal tools on a select Bank and further analysis on the same.

➤ **REFERENCE BOOKS:**

1. "Bank management", by Timothy W.Koch.
2. "Analysing and Managing Banking Risk" by Hennie Van Grueing and Sonja Brojavic Bratanovic
3. "Banking theory, Law and Practice" by Gordon and Natarajan
4. "Banking reforms in India, Managing Change", by K.Subramanian, T.K Velayudham
5. "Bank Management and Supervision in developing financial markets" by Wilbert O.Bascom.
6. "Financial institutions and markets" by Meir Kohn.
7. "Management of Banking and financial Services" by Justin Paul and Padmalatha Suresh.

FE505: QUANTITATIVE FINANCE

No. of credits: 03

➤ **COURSE OBJECTIVE:**

The elective in **finance area** is being offered to the students to inculcate and hone relevant quantitative skill and techniques used in corporate finance, structuring portfolio and developing financial models for decision making.

➤ **COURSE OUTLINE/SESSION PLAN:**

| TOPICS   |
|--|
| Review of Statistical concept : Summation, Product Operators, population, sample space, sample, event, random variable (Continuous and discrete) , Probability, Probability Distribution Function (PDF), Continuous PDF, moments of distribution, mean (or expected value) variance and higher moments |
| Covariance and Correlation, Properties of expected value, variance and covariance  |
| Theoretical Probability Distribution, normal distribution, standardized normal variable, Central Limit Theorem, standard error and F distribution  |
| Statistical Inference: Estimation, Estimator, Point Estimation, Interval Estimation, confidence interval, Level of significance  |
| Unbiasedness, Minimum variance, Best unbiased Estimator and Linearity leading to BLUE, Consistency   |
| Statistical Inference: Hypothesis testing, confidence interval approach, acceptance and rejection area, Type 1 and Type 2 error, p-value- exact level of significance  |
| Regression Analysis: Concept of least square with one explanatory variable of the type $Y = \beta_1 + \beta_2 X_2 + \varepsilon$   |
| Determining regression coefficients ( slope and intercept) algebraically .   |
| Decomposition of dependent variable (Y), analytic interpretation and goodness of fit : $R^2$   |
| Properties of regression coefficients and hypothesis testing: types of data- cross-sectional, time series and panel. Assumptions of regression models. Error term t test of coefficient.   |
| F test and Summary of sessions 1-10, midterm exam.   |
| Multiple Regression Analysis, F test, Adjusted $R^2$   |
| Problem of Multicollinearity in multiple regression, detection and remedy  |
| Transformation of variables- log model, quotient form  |
| Dummy variable capturing qualitative characteristics   |
| A general discussion on time series and panel data regression,   |

|   |
|---|
| Mean – Variance analysis in portfolio context, variance as a measure of risk, portfolio objective – minimizing risk with maximization of return (hands on through excel using prowess)                        |
| Derivation of beta of a stock through regression ( hands on through excel)  |
| Hands on Research on a topic in finance area through simple econometric modeling using prowess and excel - 1  |
| Hands on Research on an economic event like impact of equity valuation as a result of bonus issue or buy back announcement etc i.e. event study through simple econometric modeling using prowess and excel-2 |
| END TERM EXAMINATION  |

➤ **EVALUATION COMPONENTS:**

|                     |     |
|---------------------|-----|
| Class Participation | 20% |
| Assignment / Quiz   | 20% |
| Mid-term            | 20% |
| End -term           | 40% |

➤ **PRESCRIBED TEXT BOOK:**

Introduction to Econometrics ( 3<sup>rd</sup> Edition ) by Christopher Dougherty (Oxford University Press) + Hand outs.

➤ **REFERENCE:**

Basic Econometrics (4<sup>th</sup> Edition) by Damodar Gujarati (Tata McGraw-Hill)

**FE503: SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT**

**No. of credits: 03**

➤ **COURSE OBJECTIVE:**

The objective of the course is to equip the students with important tools and techniques for becoming an analyst.

➤ **COURSE OUTLINE:**

1. Investment: Introduction:  
Investment, holding period, holding period yield, return, expected, historical, averages, risk and return
2. Fundamental analysis  
Economic analysis: tools  
GDP, Monetary Policy and liquidity, Inflation, Interest rates, international influences, consumer sentiment, fiscal policy, influences on longterm and short term expectations.
3. Industry Analysis  
Tools: cross sectional industry performance, industry performance over time, differences in industry risk, prediction about market behavior, competition over the industry life cycle.
4. Company analysis  
Tools: threat of new entrants, determinants of entry barriers, threat of substitute products and services, rivalry, financial statement of companies.
  
5. Technical analysis  
Charting tools  
Bar chart, candle stick, point and figure chart, line chart,
  
6. Security valuations and analysis  
Bond, equity and mutual funds , risk return trade offs
  
7. Portfolio selection:  
Efficient market theory, random walk theory, portfolio risk/return, traditional portfolio selection
  
8. Portfolio management  
Growth investing, value investing, performance index, portfolio revision

➤ **EVALUATION:**

| <b>Components</b> | <b>Weightage</b> |
|-------------------|------------------|
| Assignments       | 20%              |
| Mid- term         | 30%              |
| End - term        | 50%              |

➤ **SUGGESTED READINGS:**

1. Investment Analysis and Portfolio Management by Reily and Brown

2. Investment analysis and Portfolio Management by Ranganathan and Madhumati
3. Security Analysis and Portfolio Management by Fischer and Jordon
4. Investment Analysis and Portfolio management by Prasanna Chandra

### **FE504: INSURANCE AND RISK MANAGEMENT**

**No of credits: 03**

➤ **COURSE OBJECTIVE:**

Today, there is no shortage of investment options for a person to choose from. Modern day investments include gold, property, fixed income instruments, mutual funds and of course, life insurance. Given the plethora of choices, it becomes imperative to make the right choice when investing your hard-earned money. This paper will highlight the areas of risk management, techniques available to handle the same and focus on insurance as a risk management tool for individuals and corporates.

➤ **COURSE OUTLINE:**

*Module 1: Insurance-A conceptual framework*

*Module 2: Introduction to risk and insurance-risk management techniques-insurability of specific risks.*

*Module 3: Requirements of an insurance contract-utmost good faith-insurable interest-consideration for the contract-capacity to contract-an insurance policy.*

*Module 4: LIFE INSURANCE-methods of funding life insurance-premium rate calculations-the level premium system-life insurance reserves.*

*Module 5: TERM INSURANCE-features-products-convertible term insurance and renewable term insurance*

*Module 6: PERMANENT LIFE INSURANCE-whole life-premium payments-a new generation of permanent products AND PREMIUM CALCULATIONS.*

*Module 7: SUPPLEMENTARY BENEFITS-supplemental disability benefits-waivers-accidental benefits-paid up additions options benefits-other related provisions.*

*Module 8: LIFE INSURANCE POLICY PROVISIONS-incontestability provision-grace period provision-reinstatement provision and other related provisions.*

*Module 9: Premium payment, lapse and renewal-assignment, nomination, loans, surrenders, foreclosure etc.*

*Module 10: Settlement of claims-maturity claims-survival claims-death claims-claim concession and others.*

*Module 11: GROUP INSURANCE-types of groups-determination of benefit levels-eligibility requirements-group insurance premiums-termination provisions-annuities and retirement savings plans.*

*Module 12: HEALTH INSURANCE-funding mechanisms-plan administration.*

*Module 13: IRDA GUIDELINES related to insurance business-directives regarding the investment of premium income in respect of life insurance and general insurance companies.*

*Module 14: GENERAL INSURANCE BUSINESS-the players-requirements for a general insurance contract-other related areas.*

*Module 15: INSURANCE AGAINST FIRE-legal aspects-accounting aspects-fire insurance claims and damages.*

*Module 16: MARINE INSURANCE-types of marine insurance-hull insurance-laws governing marine insurance contracts and other related aspects.*

*Module 17: RE-INSURANCE-types-exchange control regulations-payment of premiums-NRI policies-settlement of claims etc.*

### ***Module 18: INSURANCE ACCOUNTING***

#### **EVALUATION:**

| <b>Components</b> | <b>Weightage</b> |
|-------------------|------------------|
| Mid - term        | 25%              |

|            |     |
|------------|-----|
| Project    | 25% |
| End - term | 50% |
| Total      | 100 |

**PROJECT:**

- ❖ Students must follow the framework suggested in the class for the project.
- ❖ Students should collect original information and analyze it as per the suggested guidelines.
- ❖ Information obtained from the internet can be used. The source should be cited. **However, a complete copy of downloaded information will disqualify the project.**

**TEXT BOOK:**

Life and Health Insurance: Kenneth Black, JR. & Harold D. Skipper, JR. Pearson Education publication.

**SUGGESTED READING:**

1. Insurance-Principles and Practices-M.J.Mathews.
2. Insurance Law manual-A publication of IRDA
3. Principles of Insurance-Volume 1,2 and 3: A publication of the Insurance Institute of India.

In addition to the above, students are expected to read the following journals on a regular basis:

- a. ASIA INSURANCE POST
- b. INSURANCE TIMES
- c. INSURANCE CHRONICLE.