

# PGDM CURRICULUM – RAJAGIRI BUSINESS SCHOOL

## GENERAL GUIDELINES

The PGDM programme of Rajagiri Business School is designed with the objective to prepare the students to be excellent in managerial competence. This Two Years Management Program offers a comprehensive education in management as well as the opportunity to develop competence in a particular area of interest in management. Programme is designed specifically to meet challenging demands of leadership in the globalising world. The broad range of skills and knowledge needed for competent managerial functioning are inculcated among students with utmost care and dedication without diluting ethical and value dimensions.

Programme objectives are thus to provide a general management perspective to the candidates, with an appreciation of the theoretical frameworks, and analytical methods required for functioning effectively and efficiently in a management group and to relentlessly proceed towards excellence in career.

The programme structure contains two parts with a compulsory set of courses covering all foundation areas in management and building a holistic general management perspective, and a set of elective courses with a functional and domain thrust aimed at building the job specific skills and knowledge in the chosen area of management. A strong emphasis is given to project work as a part of the courses offered and to interact with managers from the industry.

The participants should complete a total of 114 Credits that includes 24 core courses with 66 Credits, 14 elective courses with 42 Credits; internship and dissertation of 3 Credits each, over six trimesters.

<b>Program Structure</b>	
<b>Courses</b>	<b>Credits</b>
Core Courses (24)	66 Credits
Electives (14)	42 Credits
Dissertation	03 Credits
Internship	03 Credits
<b>Total</b>	<b>114 Credits</b>

The specializations are available to students on following streams listed below

1. Marketing
2. Finance
3. Operations
4. Human Resource Management
5. Business Analytics and Systems

For specialisation in any stream, a student needs to complete a total of 15 Credits from an area of specialisations, during the program. PGDM is a dual specialization program. The remaining 12 credits, after choosing a minimum of 15 credits from each area of specialization streams, may be earned by choosing courses from any area(s) of specialization. The list of compulsory courses under each elective stream and scheme of cross-linking applicable to certain courses will be finalised

before the commencement of the second year by the IQAC. A student can opt for a maximum of three additional electives from any area of specialization subject to the condition of one in each trimester of the second year.

### **Earning Credits through Online Platforms**

Adhering to the provisions of the New Education Policy (NEP-2020) of the Government of India, the school permits the students to enroll and earn credits by completing courses available in the acceptable online platforms like Coursera and SWAYAM-NPTEL. Students will be permitted to complete one course through this mode. However, the student must get approval to enroll for the course by a faculty coordinator as appointed by the respective area. The courses which are not offered in the school must be selected for online learning. Upon submission of the transcript and grades to the exam office, the same can be accepted by the school. Wherever the grades of these courses are not compatible with the school's grading pattern, the IQAC will take decision reg. the conversion formula.

### **Summer Internship (3 Credits)**

At the end of the first year, students undergo summer training for a period of 8 weeks with an industrial, business or service organization to experience the executive functions and to learn more about an organization. The student should submit a report to the school in the fourth trimester.

### **Dissertation Work (3 Credits)**

The students are expected to do a dissertation or a problem centric study in the fifth trimester. The duration is kept as 30 hours. The study is expected to have extensive applications of research methodology. The report should be submitted before the completion of the fifth trimester.

### **Assessment and Evaluation**

As per AICTE norms, each three credit course needs involvement of approximately 100 hours of total work, where classroom contact is thirty hours and out of class work is seventy hours. The students are thus need to be assessed and evaluated for both thirty hours of classroom contact and seventy hours of out of class work. (Roughly 2 hours of off-class room work for every hour of class room work) Out of class work involves reading, projects and other assignments/exercises, case study preparation, etc. The following pattern will be followed for evaluating student performance in total 100 hrs.

The evaluation of the students at Rajagiri will be a continuous process to ensure spaced learning and internalization of concepts and skill development. Multiple evaluation components such as end term exams, midterm exams, quizzes, assignments, projects, case reviews, term papers, Library work, presentations etc. will be used by the respective faculty to assess the students. Evaluation can be instructor centric, *Moodle* (Learning Management System) based, centralised by the institution or a combination of all. The following pattern will be adopted for student assessment and evaluation.

<b>Mode of evaluation</b>	<b>Max. Weight</b>
Mid-Term Examination	20%
End Term examination	30%
Assignments, projects, presentations.	25%
Quizzes, class participation etc	20%
Attendance	5%

In principle, attendance has to be made compulsory for all students in all courses. However to accommodate absence on account of exigencies, a percentage of an absence of up to 25% in a course is treated as permissible absence, not attracting any penal consequences with prior information of such absences. If the percentage of the absence of a student in a course is more than 25% but is equal to or less than 40%, some level of penalty has to be imposed. The student may be permitted to apply for condonation to appear for the exams by paying the prescribed fee. This provision should be extended to the student only once in an academic year. Absence of more than 40% may not be allowed in any given course, and that may result in the award of a grade of “Incomplete”, in that course.

The School follows the following grading system

<b>GRADE</b>	<b>O</b>	<b>A+</b>	<b>A</b>	<b>B+</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F</b>	<b>I</b>
<b>Points</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>3</b>	<b>0</b>	
<b>% of Points of maximum marks</b>	<b>90-100</b>	<b>80-89</b>	<b>75-79</b>	<b>70-74</b>	<b>60-69</b>	<b>50-59</b>	<b>40-49</b>	<b>Below 40</b>	<b>Incomplete</b>

A student will have to score C or above for a pass in individual courses and an overall CGPA of 5 or above to obtain a PGDM degree. He/she can have a maximum of 2 courses with D or 1 course with F grade in an academic year. But no ‘I’ grades are permitted for the successful completion of the programme. In case a student fails to obtain any of these requirements, he / she shall repeat the course with the subsequent batches as directed by the authority concerned. However the course should be completed within a period of 5 years from the date of his / her registration.

### TRIMESTER WISE CURRICULUM OUTLINE

Code	Course	Credit
<b>Trimester 1</b>		
CRT1001	Microeconomics	3
CRT1002	Financial Accounting	3
CRT1008	Individual and Interpersonal Dynamics	3
CRT1004	Business Communication	2
CRT1011	Legal Environment of Business	2
CRT1006	Business Statistics	3
CRT1012	Technologies & Digital Transformation of Business	2
Total Credits (Trimester 1)		<b>18</b>
<b>Trimester 2</b>		
CRT2001	Macroeconomics	2
CRT2008	Leadership and Organization Dynamics	3
CRT2003	Marketing Management - 1	3
CRT2009	Fundamentals of Financial Management	3
CRT2005	Operations Management – I	3
CRT2006	Cost and Management Accounting	3
CRT2010	Operations Research	3
Total Credits (Trimester 2)		<b>20</b>
<b>Trimester 3</b>		
CRT3001	Marketing Management - 2	3
CRT3008	Corporate Finance	3
CRT3003	Human Resource Management	3
CRT3004	Operations Management – II	3
CRT3009	Business Research Methods	3
CRT3012	Strategic Management	3
CRT3011	Introduction to Business Analytics	2
Total Credits (Trimester 3)		<b>20</b>
<b>Trimester 4</b>		
CRT4002	Global Business Environment	2
	Minimum 5 Electives (X) (5 * 3 = 15 Credits)	15
	Summer internship	3
Total Credits (Trimester 4)		<b>20</b>
<b>Trimester 5</b>		
CRT5002	Creative Problem Solving	3
	Minimum 4 Electives (Y) (4 * 3 = 12 Credits)	12
	Dissertation	3
Total Credits		<b>18</b>
<b>Trimester 6</b>		
CRT6003	Ethics and Corporate Sustainability	3
	Minimum 5 Electives (Z) (5 * 3 = 15 Credits)	15
Total Credits (Trimester 6)		<b>18</b>
Min Credit from elective courses, X+Y+Z		<b>42</b>

	<b>Total Program Credits</b>	<b>114</b>
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## ELECTIVE STREAMS OF COURSES

### Marketing – List of Electives

Code	Course	Trimester	Credit
MM008	Services Marketing	4	3
MM006	Brand Management		3
MM007	Rural Marketing		3
MM014	Digital Marketing		3
MM005	Marketing Research		3
MM013	International Marketing	5	3
MM001	Consumer Behaviour*		3
MM011	Sales and Distributions Management		3
MM015	Marketing Analytics		2
MM003	Retail Management	6	3
MM002	B2B Marketing		3
MM004	Integrated Marketing Communications		3
MM016	Design Thinking		3
	Strategic Marketing		3

\*Core elective – compulsory elective for all students who have opted Marketing Specialization.

### Human Resource Management – List of Electives

Code	Course	Trimester	Credit
HRM003	Organization Development and Change Management	4	3
HRM005	Performance Management		3
	Talent Acquisition and Retention		3
	Positive Psychology for Managers		3
HRM001	Human Resource Development	5	3
HRM008	Reward Management		3
	HR Analytics		3
HRM009	Competency Based Human Resource Management	6	3
	Coaching		3
HRM004	Strategic Human Resource Management		3
HRM013	International Human Resource Management		3
	Strategic Industrial Relations		3
	Employee Welfare and Legislations	3	

### General Management – List of Electives

Code	Course	Trimester	Credit
GM00	Entrepreneurship and Family Business Management	4	3
	Introduction to Public Policy		3
	Social Entrepreneurship	5	3
	Innovation Safari	6	3
GM00	Managing Businesses in Emerging Markets		3

### Operations Management – List of Electives

Code	Course	Trimester	Credit
OM005	Service Operations Management	4	3
	Future of Work & Organizations of the Future		3
	Executive Decision Making		3
	Sustainability and Industry 5.0		3
OM001	Project Management	5	3
OM004	Supply Chain Management		3
	Enterprise Risk Management		3
	Supply Chain Analytics		3
OM016	Revenue Management	6	3
OM010	Game Theory for Managers		3
OM014	Strategic Operations Management		3
	Product Design and Development		3
	Digital Transformation and Intelligent Automation		3

### Business Analytics – List of Electives

Code	Course	Trimester	Credit
BI011	Business Modelling using R (BMR)	4	3
BI012	Applied Business Analytics		3
	Relational Database Management & SQL for Managers*		3
	Exploratory Data Analysis using Excel		3
BI013	Machine Learning using Python	5	3
BI014	Visualizing Data using Tableau		3
	Big Data Analytics		3
	Data Mining		
BI015	Social and Web Analytics	6	3
BI016	Advanced Business Analytics		3
	Business Intelligence		3
	Optimization Methods in Management		3
	Financial Analytics (cross-listed with Finance)		3

\*Core Elective for Business Analytics specialization

<b>Finance – List of Electives</b>			
<b>Code</b>	<b>Course</b>	<b>Trimester</b>	<b>Credit</b>
FM007	Financial and Capital Market Services	4	3
FM002	Commercial Banking and Finance		3
FM010	Modelling using Spread sheet*		3
	Basic Econometrics for Managers		3
FM001	Security Analysis and Portfolio Management	5	3
FM013	Microfinance		3
	Project Finance and Capital Budgeting		3
FM014	Portfolio Modeling Using Spreadsheets		3
FM005	Financial Derivatives and Risk Management	6	3
FM011	Strategic Financial Management		3
FM006	International Finance		3
	Integrated Reporting		3

\* Grade B or above in the Microsoft Excel Certification or a Microsoft Certified Specialist badge.

\*\* Financial Derivatives and Risk Management to be offered only after offering Security Analysis and Portfolio Management

Portfolio Modeling Using Spreadsheets to be offered to only those students who have studied Financial Modeling using Spreadsheets.

# Trimester 1

## CRT1001 MICROECONOMICS (3 Credit)

### Objective:

The emphasis in this course will be on application of basic economics principles and topics such as demand analysis, cost analysis, production and pricing under different market situations, pricing practices etc.

### Module- 1

Scarcity and deficiency – the twin themes of economics, the market command and mixed economies, the market mechanism, the invisible hand and perfect competition, the economic role of government, general and partial equilibrium.

### Module- 2

Supply and demand analysis: the demand schedule, the demand curve, the demand shift, elasticity of demand, price elasticity of demand, calculating elasticity, income elasticity, cross elasticity, analysis of supply, supply schedule, supply curve, shifts in supply, equilibrium of supply and demand, interpreting changes in price and quantity, simultaneous shift of supply and demand, rationing by prices.

### Module- 3

Consumer behavior: choice and utility theory, marginal utility and law of diminishing marginal utility, equal marginal utility per rupee for every good, substitution effect and income effect, the paradox of value, consumer surplus, indifference curve analysis, the equilibrium position of tangency, deriving the demand curve.

### Module-4

Production analysis: the production function, total, average and marginal product, the law of diminishing returns, returns to scale, the law of diminishing marginal product, least cost factor combination for a given output, expansion path Analysis of costs: the link between production and cost, short run and long run economies of scale, break even point.

### Module- 5

Market structure and firm strategy: Features and assumptions of perfect competition, monopoly, monopolistic competition and oligopoly; profit maximization under perfect competition, monopoly and monopolistic competition; oligopoly and game theory, kinked demand curve

### Suggested Reading:

1. Paul Keat & Philip K. Young, Managerial Economics, Pearson publication, 4th edition
2. William J. Baumol & Alan S, Microeconomics: Principles And Policy, Tata Mcgraw hill, 5th edition
3. Robert S. Pindyck, Daniel L. Rubinfeld, Microeconomics, Prentice-Hall Series in Economics, 6th Edition
4. Samuelson, Paul A., Nordhaus, William D., Chaudhuri, Sudip & Sen, Anindya (2013). Economics, 9th edition, Tata McGraw Hill India.
5. Mankiw, N. Gregory (2012). Principles of Economics, 6th edition, Cengage Learning India Private Limited



## **CRT1002 FINANCIAL ACCOUNTING (3 Credit)**

### **Objective:**

The aim of this course is to provide students with an understanding of the basic concepts, principles, procedures and techniques underlying the accounting process so as to equip them with a foundation for studies of other accounting courses in the degree programme.

### **Module-1:** Financial Accounting Basic Principles and Double Entry Book Keeping

Differences between Financial Accounting, Cost Accounting and Managerial Accounting - Definitions of Accounting - Business Entity Concept - Money Measurement Concept - Fundamental Accounting Equation - Dual Aspect – Going Concern – Cost Concept - Rules of Debit And Credit - Double Entry Book Keeping – Preparation of Journal - Posting to Ledger - Preparation of Trial Balance – Introduction to GAAP - Indian and International Accounting Standards

### **Module-2:** Adjusting Entries, Completion of Accounting Cycle/Final Accounts

Need for Adjusting Entries – Time period Assumption – Accrual Basis of Accounting – Matching – Conservatism – Consistency – Materiality – Adjustments for Deferrals – Adjustments for Accruals – Completing the Accounting Cycle - – Preparation of Profit and Loss Account (Income Statement) – and Balance Sheet – Closing Entries - Accounting Standards on Presentation of Financial Statements (Ind AS1, Ind AS 8 and IAS 1) and Revenue (Ind AS 18 and IAS 18)

### **Module-3:** Cash Flow Statement

Understanding Cash From Operations – Direct and Indirect Methods - Cash from Financial Activities and Investment Activities – Preparing Cash Flow Statement using Indirect Method – Accounting Standards on Statement of Cash Flows (Ind AS7 and IAS7) - Understanding final Accounts in the Schedule III Format - Introduction to Current and Non- current Asset & Liabilities as per Schedule III Format- Practical Reading and Understanding of Prominent Industry B/S

### **Module-4:** Inventory, Receivables and Fixed Assets

Special Areas in Accounting – Inventory – Classification, Costing, Accounting and Presentation of Inventory – Accounting Standards on Inventory (Ind AS 2 and IAS 2) – Receivables – Types, recognition, valuation and presentation of Receivables – Plant Assets, Natural Resources and Intangible Assets – Cost Principle – Concepts of Depreciation, Depletion and Amortization – Disposal of Plant Assets - Accounting Standards on Plant Assets, Natural Resources and Intangible assets (Ind AS 16 and IAS16)

### **Module-5:** Financial statement analysis

Ratio analysis –profitability ratios – liquidity ratios – solvency ratios - vertical analysis - horizontal analysis -

### **Suggested Reading:**

1. Accounting Principles 10th Edition, Jerry J. Weygandt, Paul D. Kimmel, Donald E. Kieso, John Wiley & Sons, Inc.
2. Accounting Text and Cases thirteenth (indian) edition Robert N Anthony, David F. Hawkins, Kenneth A. Merchant McGraw Hill Education. (AHM)
3. Financial Statements Presentation under Companies Act, 2013 Practitioner's Perspective, ICAI
4. Intermediate Accounting, 17E, Earl K. Stice, James D. Stice, K. Fred Skousen. Cengage
5. Financial Accounting, 15e, Carl S. Warren, James M. Reeve, Jonathan E. Duchac. Cengage Learning

## **CRT1008 INDIVIDUAL AND INTERPERSONAL DYNAMICS (Credit 3)**

### **Course Objectives**

The course objective is to brief the underlying factors of human behavior (such as perception, emotion, personality) in the organizational context. Understanding these factors will help us to effectively diagnose the issues related to the dynamics of interaction among employees, and manage the same in organization. It will help in exploring the organization system in totality so as to capture the full complexity of human behavior in organizations.

### **Module 1**

Definition and place of Organizational Behavior in Management. Hawthorne studies: Social Man. Contributing disciplines of OB: Psychology, Sociology, Social Psychology, Anthropology, Economics. Organizational Behaviour models.

### **Module 2**

Perception: Structural Factors and Functional factors; Organized nature of the Perceptual field; Functional Selectivity of Perception; Interpersonal perception; Impression Management. Mental models, Perceptual errors, Attribution error, Self-fulfilling prophecy. Perception and decision making.

### **Module 3**

Learning: Learning theories; Classical Conditioning, Operant conditioning, social Learning. Types of learners; Behaviour modification, self-efficacy. Johari Window

### **Module 4**

Personality: Factors influencing personality: Heredity and Environment; Deterministic and Non - deterministic elements in Personality; Stimulus, Response and Free agency. Theories of Personality; Big five, MBTI, Locus of Control, Holland's typology. Career Anchors.

Emotions: Theories; Emotional Labour; Emotional Intelligence. Affective Events theory. Self-awareness and self-management, circumplex model, Job performance and satisfaction, psychological contract, organizational commitment and involvement.

Attitudes and Values: Components of attitudes, Formation of attitudes, Values. Value congruence.

### **Module 5**

Motivation: Content and process theories; Maslow's need hierarchy, ERG theory; 2 factor theory; Porter Lawler model Expectancy theory, goal setting and feedback, MBO. Hackman and Oldham model: Job design, work space design. Equity theory. MARS model.

Stress and stress management, Rapid change, OD and first-generation OD approaches.

### ***Text Books***

1. Stephen P. Robins, Organisational Behavior, PHI Learning / Pearson Education, 11th edition, 2008.
2. Fred Luthans, Organisational Behavior, McGraw Hill, 11th Edition, 2001.

### ***References***

1. Schermerhorn, Hunt and Osborn, Organisational behaviour, John Wiley
2. Udai Pareek, Understanding Organisational Behaviour, Oxford Higher Education
3. Mc Shane & Von Glinov, Organisational Behaviour, Tata Mc Graw Hill
4. Hellrigan, Slocum and Woodman, Organisational Behaviour, Cengage Learning
5. Ivancevich, Konopaske & Maheson, Organisational Behaviour & Management, Tata McGraw Hill

## **CRT1004 BUSINESS COMMUNICATION (2 credits)**

### **About the Course**

Effective communication is fundamental to the success of the organisation as well as the individual and is a skill to be acquired when entering the workforce of the flat world of today. Developing good business communication is a mix of both good content and good form, as well as maintaining standards that are internationally recognizable.

This course will help develop communication skills by

1. Introducing one to the fundamental principles of communication, practices and effective techniques for written and oral business communication.
2. Sensitize one to the different styles of communication across the world and how to handle communication in a global work setting.

**Module I** - Introduction to Communication- Scope, Importance, types. - Process & channels of communication- Barriers of communication-

**Module II** - Nonverbal Communication; Listening- Process, Barriers- Cross-cultural Communication

**Module III** - Effective Presentation; Types of Presentation; Participation in online meetings & webinars meetings (Marketing/Sales/ Press-)

**Module IV** - Process of Writing- Formats and Approaches of writing letters/e-mails- Reports and Proposal writing; positive, negative & persuasive writing.

**Module V** – Report Writing – Analysing cases and preparing written documents – Proposals - Types of Proposals

### **Reference Books**

1. Bovee, Thill & Chatterjee. Business Communication Today (10th ed.) Pearson
2. Lehman, Dufrene & Sinha. BCOM (2nd ed). Cengage learning
3. Thill & Bovee. Excellence in Business Communication (9th edition), Pearson
4. Lesikar & Flatley. Basic Business Communication (10th edition), Tata McGraw-Hill
5. Nawal, Mallika. Business Communication (2nd ed.) Cengage Learning India Pvt. Ltd.

## **CRT1006 BUSINESS STATISTICS (3 Credit)**

### **Objective:**

The objective of this course is to explain statistical concepts to students. This will help the students to understand various statistical tools used for managerial decision-making. The course also intends to introduce statistical software such as SPSS or MS Excel.

**Module – 1:** Levels of measurement, preparation of datasheets in SPSS/MS-Excel. Compute and recode functions in SPSS. Frequency tables, Measures of central tendency, dispersion Skewness. using SPSS/MS-Excel in datasets.

**Module-2:** Relationship between variables-dependent & independent variables. Compare Arithmetic means, and crosstabulation, using SPSS/MS-Excel in these contexts. Scatter Diagram, Correlation- Karl Pearson's Correlation Coefficient, Spearman's Rank Correlation Coefficient using SPSS/MS Excel

**Module-3:** Relationship between variables- Regression-simple and multiple, Coefficient of Determination, Unstandardized regression coefficient and standardized regression coefficients – using SPSS/MS Excel

**Module-4:** Probability Distributions, Discrete Distributions: Binomial Distributions, Poisson distributions, Continuous Distribution: Normal Distribution (only basic application of probability distributions)

**Module-5:** Population Parameters, Sample Statistic, the concept of p-value, Hypothesis: Null and alternate hypotheses, Testing procedures of hypothesis: One sample t/z test, two sample t/z-test, ANOVA, Chi-Squared-Tests- the goodness of Fit and the Independence of Association using SPSS/MS-Excel

### **Suggested Reading:**

1. Richard Levin & David S. Rubin, *Statistics for Management*, Pearson Education, 6th edition
2. J.K Sharma, *Business Statistics*, Pearson education, 5th edition
3. Naval Bajpai, *Business Statistics*, Pearson Publication, 4th edition
4. Derek Rowntree *Statistics without Tears: An Introduction for Non-Mathematicians*, Penguin UK
5. Freedman, Purves, Pisani, *Statistics Viva Books*; Fourth edition

### **Software Package:**

Microsoft Excel/ SPSS to solve most of the problems involved in the course

## **CRT1011 LEGAL ENVIRONMENT OF BUSINESS (Credit 2)**

### **Objective:**

The objective of this course is to acquaint the student with various laws, which are to be observed in performing the day-to-day business. Here the emphasis will be on different and latest provisions of the law and on how these can be used in the best interest of the organization.

### **Module-1**

Introduction to Law and Business - Constitution of India- Preamble, Fundamental rights, Constitutional remedies Directive principles of state policy, Fundamental duties. Consumer Protection Act- Who is consumer? Commercial purpose and livelihood, Rights of consumer, Nature and scope of remedies, Consumer redressal mechanisms.

### **Module-2**

Indian Contract Act, 1872 – Nature of contract, Offer and Acceptance, Consideration, Capacity of parties, free Consent Void Agreements, Contingent Contract and Quasi Contracts, Performance and Discharge of Contracts.

### **Module-3**

Special Contracts: Bailment, Pledge, Contract of Guarantee, Contract of Indemnity Sales of Goods Act: Essentials of contract of sale, goods and their classification, Meaning of price, Condition and Warranties, Passing property in goods, Performance of a contract of sale of goods, Remedies for breach of a contract of sale.

### **Module-4**

Partnership Act- Characteristics, Registration of partnership firms, Rights and liabilities of partners, Types of partnerships and Dissolution of partnership and firm. Limited Liability Partnership Act 2008 Introduction to Negotiable Instruments Act 1881: Types of NIs, Holder and Holder in due course Transfer of NIs, Liability of Parties and Discharge of Liability.

### **Module-5**

Companies Act, 2013 – Nature, features and types of a companies, Incorporation /registration of company, Memorandum and articles of association, Prospectus and statement in lieu of prospectus, Certificate for commencement, Type of Shares. Company meetings and resolution- ordinary and special. Winding up of companies and powers of Liquidator. Lifting of corporate veil-circumstances.

### **Suggested Reading:**

1. Chawala and Garg, Mercantile Law, Kalyani Publications, 2010
2. M.C. Shukla, A Manual of Mercantile Law, S. Chand & Co. Ltd.2011
3. S.K. Mishra and V.K. Puri, Economic Environment of Business, Himalaya Publishing House, 8th edition
4. P C Tulsian and Bharat Tulsian, Business Law, McGraw Hill Education
5. Ravinder Kumar, Legal Aspects of Business, 5E, Cengage India

# **CRT1012 Technologies & Digital Transformation of Business (2 Credit)**

## **Course Overview:**

This course provides an in-depth examination of the latest digital technologies and their applications for business operations, growth, and innovation. The course will cover five modules, including digital transformation in business, cloud computing, artificial intelligence, immersive technologies, and blockchain technologies.

## **Course Objectives:**

- Understand the latest digital technologies and their potential impact on business operations and innovation.
- Evaluate the benefits and limitations of digital technologies for different industries and business models.
- Develop a strategic framework for integrating digital technologies into business operations and creating new business opportunities.
- Understand the ethical and legal implications of digital technologies for business and society.

## **Module 1: Digital Transformation in Business**

- Understanding the concept of digital transformation and its impact on business operations and innovation.
- Analyzing the key drivers of digital transformation, including customer expectations, data analytics, and digital ecosystems.
- Identifying the key technologies enabling digital transformation, such as cloud computing, artificial intelligence, and the Internet of Things.
- Developing a strategic roadmap for digital transformation in organizations.

## **Module 2: Cloud Computing in Business**

- Understanding the concept of cloud computing and its applications for business operations and innovation.
- Analyzing the different types of cloud computing services, such as software as a service (SaaS), platform as a service (PaaS), and infrastructure as a service (IaaS).
- Evaluating the benefits and challenges of cloud computing for different industries and business models.
- Developing a cloud strategy for organizations, including migration, deployment, and management.

## **Module 3: Artificial Intelligence in Business**

- Understanding the concept of artificial intelligence and its applications for business operations and innovation.
- Analyzing the different types of AI technologies, such as machine learning, natural language processing, and robotics.
- Evaluating the benefits and challenges of AI for different industries and business models.
- Developing an AI strategy for organizations, including data preparation, model selection, and performance measurement.

## **Module 4: Immersive Technologies in Business & IoT**

- Understanding the concept of immersive technologies and IoT and their applications for business operations and innovation.
- Analyzing the different types of immersive technologies, such as virtual and augmented reality, and their applications in training, marketing, and customer experience.
- Evaluating the benefits and challenges of immersive technologies for different industries and business models.

## **Module 5: Blockchain Technologies in Business**

- Understanding the concept of blockchain and its applications for business operations and innovation.

- Analyzing the different types of blockchain technologies, such as public, private, and hybrid blockchains, and their applications in supply chain management, digital identity, and smart contracts.
- Evaluating the benefits and challenges of blockchain for different industries and business models.

**Recommended Books:**

1. "Digital Transformation: Survive and Thrive in an Era of Mass Extinction" by Thomas M. Siebel
2. "Leading Digital: Turning Technology into Business Transformation" by George Westerman, Didier Bonnet, and Andrew McAfee

**Additional Recommendations:**

3. "Cloud Computing: Concepts, Technology & Architecture" by Thomas Erl, Ricardo Puttini, and Zaigham Mahmood
4. "Human + Machine: Reimagining Work in the Age of AI" by Paul R. Daugherty and H. James Wilson
5. "Virtual and Augmented Reality" by Manuel Fradinho Oliveira and Pedro M. Cunha
6. "Blockchain Revolution: How the Technology Behind Bitcoin Is Changing Money, Business, and the World" by Don Tapscott and Alex Tapscott

# Trimester 2

## CRT2001 MACRO ECONOMICS (2 Credit)

### Objective:

The course aims at enabling students on developing an ability to appreciate the linkages between macro environment changes and micro level decision-making, as a manager and as a consumer. This course focuses on macroeconomic concepts and policies to provide the theoretical base.

### Module 1

Meaning and concerns of macroeconomics and importance to managerial decision making, characterization of macro-economy: circular flow of income, key macroeconomic variables, GDP: concept and methods of estimation, GNP, GDP deflator.

### Module 2

Aggregate expenditure: consumption function, average and marginal propensities to consume, savings function, investment function, government spending and net exports, equilibrium expenditure and income determination: Keynesian cross, multiplier: government expenditure, investment and tax multiplier, Aggregate expenditure and Aggregate demand, AS-AD model, macroeconomic equilibrium.

### Module 3

Business cycles: Features and phases, temporary deviations from AS-AD equilibrium, inflationary and recessionary gaps, unemployment and inflation: nature and sources, measuring price level in India: WPI vs CPI, Philips curve, Okun's law, stabilization policies: Fiscal policy and Monetary policy, Fiscal policy: Fiscal policy instruments, expansionary and contractionary policies and its impact on AD, automatic stabilizers and discretionary fiscal policy, budget: surplus and deficit, crowding out, twin deficits, government debt.

### Module 4

Money demand, money supply and interest rate, liquidity preference theory and quantity theory of money, central bank's functions and role, monetary policy, the central bank's instruments of monetary control, expansionary and contractionary policies and its impact on AD, monetary transmission mechanism, money multiplier.

### Module 5

External sector: trade, balance of payments- relationship between current and capital account, Exchange rate: theory of foreign exchange rate determination- demand for and supply of foreign exchange, other factors influencing exchange rates, real and nominal exchange rates, exchange rate systems.

### Suggested Readings:

1. N. Gregory Mankiw, Macroeconomics, Thomson, 9e, Worth Publishers, 2015
2. William A. McEachern and A. Indira, Macro ECON: A South-Asian Perspective, Cengage Learning, 2e, 2017
3. Olivier Blanchard and David R Johnson, Macroeconomics, 6e, Pearson Education, 2017
4. Rudiger Dornbusch, Stanley Fischer and Richard Startz, Macroeconomics, McGraw Hill Education, 12e, 2018
5. Paul A. Samuelson, William D. Nordhaus, Sudip Chaudhuri and Anindya Sen, Economics, Tata McGraw Hill, 20e, 2019



## **CRT2008 LEADERSHIP AND ORGANIZATION DYNAMICS (3 Credit)**

### **Course Objectives**

The course introduces students to the fundamental concepts of group behavior and organizational structure, and its relevance in organizations. The objectives are to understand how groups and teams work and behave in organizations and how such behavior affects organizational effectiveness. In the current business environment, with growing emphasis on team work, understanding the fundamentals of concepts like group behavior and conflict management is essential for organizational effectiveness.

### **Module 1: Groups and Teams**

Team Development Stages: Functional and Dysfunctional. Belbin's Team Roles. Work Cohorts. High Performance Work Teams, Self-Directed Work teams, Socio Technical Systems, Virtual Teams, Trust and Cohesion, Team Building, Group Dynamics, Asch effect, Group Think. Change management: OD and second-generation OD approaches.

### **Module 2: Communication**

Interpersonal Skills, Communication, Transactional Analysis, Knowledge Management, communities of Practice and Communities of Discourse.

### **Module 3: Conflict Management**

Conflict management Styles Functional and Dysfunctional Conflict, Relation between conflict and performance. Negotiation skills, process and strategies. Collective bargaining.

### **Module 4 : Organizing**

Organisational Structure, Vertical and horizontal Division of labour, Centralisation and decentralization. Delegation, Strategy and Structure, Mintzberg's structuring of organization Departmentation: Functional, Matrix and Network. Mechanistic and organic models. Organisation Design, Design thinking. OD and third generation OD approaches.

### **Module 5: People and Work**

Work flow and Value creation logic: Thomson's technology typology: sequential, reciprocal and intensive interdependence.

Organisational Culture Antecedents and Consequences. HRM and organisational Culture. Organisational Culture as a control mechanism.

Leadership - Importance – Leadership styles – Theories – Leaders Vs Managers, Managerial grid. Contingency theories: Fiedler model, Hersey and Blanchard, Leader member exchange, path goal theory. Charismatic leadership. Transactional and Transformational theories of leadership.

### **Text Books**

1. Stephen P. Robins, Organisational Behavior, PHI Learning / Pearson Education, 11th edition, 2008.
2. Fred Luthans, Organisational Behavior, McGraw Hill, 11th Edition, 2001.

### **References**

1. Schermerhorn, Hunt and Osborn, Organisational behavior, John Wiley
2. Udai Pareek, Understanding Organisational Behaviour, Oxford Higher Education
3. Mc Shane & Von Glinov, Organisational Behaviour, Tata Mc Graw Hill
4. Hellrigal, Slocum and Woodman, Organisational Behavior, Cengage Learning
5. Ivancevich, Konopaske & Maheson, Organisational Behaviour & Management, Tata McGraw Hill

## **CRT2003 MARKETING MANAGEMENT - 1 (3 Credit)**

### **Course Description**

A comprehensive and practical introduction to Marketing Management – the course aims to make the student understand and appreciate the concept of marketing in theory and practice. This course will give an understanding about how marketing creates value – for customers, for companies and for the society as a whole.

### **Course Objective**

Students who complete this course successfully will be able to:

- Correctly identify their customers and markets
- Understand the basics of marketing planning
- Make marketing decisions keeping in mind the controllable and uncontrollable influences

### **Module 1 An Introduction to Marketing (6 hours)**

Defining Marketing; Core concepts of Marketing; Scope of Marketing; Company Orientation towards the Marketplace – Production, Product, Selling, Marketing, Holistic Marketing; Marketing Management Tasks; The New Marketing Realities.

### **Module 2 Markets –Environment, Structure and Measurement (6 hours)**

Scanning the Marketing Environment – Needs & Trends, Macroenvironment & Microenvironment; Forecasting Demand; Marketing Information Systems; Competitive Dynamics.

### **Module 3 Consumer Analysis (6 hours)**

Creating Customer Value and Relationships – Marketing and Customer Value; Analysing Consumer Markets – Factors influencing consumer behaviour – The buying decision process-Other theories of consumer decision making; Analysing Business Markets – Meaning – Participants in the business buying process – The purchasing process – Stages in the buying process, Managing business to business customer relationships.

### **Module 4 Identifying and Selecting Markets (6 hours)**

Identifying Market Segments and Targets – levels and bases of market segmentation – Market Targeting; Crafting Brand Positioning – Positioning Strategies – Differentiation Strategies.

### **Module 5 Marketing Strategies (6 hours)**

Developing Marketing Strategies and Plans – Corporate and Division Strategic Planning, Business Unit Strategic Planning; Product Planning – New Product Development and Product Life Cycle – Stages and marketing strategies.

## **TEXT BOOK**

1. Philip Kotler, Keller, Koshy, Jha, Marketing Management, Pearson, New Delhi. 14<sup>th</sup> Ed., 2013

## **SUGGESTED READING**

1. Ramaswamy and Namakumari, Marketing Management, MacMillan, New Delhi. 6<sup>th</sup> Ed., 2018
2. Pingali Venugopal, Marketing Management, Sage Publications, New Delhi, 2010
3. Michael Etzel, Bruce Walker, William Stanton and Ajay Pandit, Marketing, Tata McGraw Hill, New Delhi.
4. Philip Kotler, Kevin Lane Keller, Marketing Management, Pearson, New Delhi. 15<sup>th</sup> Ed., 2017

## **CRT2009 FUNDAMENDALS OF FINANCIAL MANAGEMENT (3 Credit)**

### **Objective:**

This course is designed to introduce students to the fundamental issues of financial management and to the quantitative techniques used to address them.

### **Module-1:** Introduction to financial management

Goal, Functions and Scope of Financial Management. Interface of Finance Management with other functional areas. Financial system: Financial Instruments - Financial Markets - Financial Institutions - Regulatory authorities.

### **Module-2:** Time Value of Money

Time value of money: Simple Interest Compound Interest Compounding Periodically and Continuously Ordinary Annuities - Annuities Due - Perpetuities - Effective Rate (Annual Percentage Yield) Concept of Time Value of Money - Future value: single cash flow – multiple flows annuity - Present Value: single cash flow - multiple flows annuity

Loans and Amortization: Personal Finance: Reaching a Financial Goal Using Periodic Payments Using Lump sum Payment - Required interest rate to Reach Goal - Time Taken to Reach Goal Loan Amortization

### **Module-3:** Risk and Return and Equity Valuation

Concept of Risk and return –Measurement of Risk and Return-Historical and Probabilistic data - CAPM - Beta – Risk Diversification Equity Valuation: CAPM - Discounted Dividend Model (No Growth Model, Constant Growth Model

### **Module-4:** Capital Budgeting Techniques

Types of Projects-Mutually Exclusive Projects - Replacement Projects – Independent Projects – Contingent Projects. Capital Budgeting Techniques - Net Present Value – Internal Rate of Return - Average Accounting Return - Payback period - Discounted payback period – Profitability Index. Limitations of various Capital Budgeting Techniques – Multiple IRR - Modified IRR.

### **Module-5:** Estimation of Relevant Cashflows

Incremental (Relevant) cash flows – sunk costs – opportunity costs – side effects – allocated costs - depreciation. Capital rationing.

### **Suggested Reading:**

1. Fundamentals of Corporate Finance, Stephen Ross, Randolph Westerfield and Bradford Jordan, McGraw-Hill Education
2. Principles of Corporate Finance, 10/e (SIE). Brealey, Myers, Allen, and Mohanty. McGraw Hill Education (India) Private Ltd,
3. Van Horne James, Financial Management Policy, Prentice Hall India
4. I M Panday, Financial Management, Vikas Publications, New Delhi.
5. Prasanna Chandra, Financial Management, Tata McGraw Hill, New Delhi.

## **CRT2005 OPERATIONS MANAGEMENT I (3 Credit)**

### **Objective:**

The course aims to provide a basic, broad-based understanding of business process design and gaining knowledge about process planning, project analysis and implementation.

### **Module 1:**

Introduction to Production and Operations Management - Historical Review of Operations Management Products and Services - Manufacturing & Non-manufacturing Operations, Productivity – measures of productivity, Operations Strategy- relation to process decisions

### **Module 2:**

Process as a unit of measurement in Operations - Process Fundamentals, Types, Metrics, Elements Little's Law, Process analysis, process design, process capacity

### **Module-3**

Designing Manufacturing Processes – Manufacturing Layouts- Assembly Line Balancing, Designing Service Delivery Processes - Service Blueprinting

### **Module-4**

Supply Chain Management – Concept, Types, Components, Metrics Materials Management – Procurement Process Material Handling, Value Analysis

### **Module-5**

Inventory Management - Role, Types and Functions of Inventory – Independent versus Dependent Demand- Inventory Costs, Inventory Control Systems – P & Q Systems, Basic EOQ Model Selective Control of Inventory – ABC, VED, FSN Analysis

### **Suggested Reading:**

1. Mahadevan, B., Operations Management: Theory and Practice, Pearson Education, 3<sup>rd</sup> Edition
2. Heizer Render, Operations Management, Prentice-Hall , 2010
3. Chase, R, B., Sankar, R., Jacobs, R, F., & Aquilano, J, N. Operations & Supply Management, 12<sup>th</sup> Edition, McGraw Hill
4. William J. Stevenson, Operations Management, McGraw Hill; Standard Edition 11 July 2022.
- 5 J. Krajewski Le, K. Malhotra Manoj, P. Ritzman Larryr), K. Srivastava Samir , Operations Management: Processes and supply chain, Pearson Education

## **CRT2006 COST AND MANAGEMENT ACCOUNTING (3 Credit)**

### **Objective:**

Management accounting focuses on the use of accounting information to facilitate the success of manufacturing, service, governmental, and not for profit organizations. Business processes and organizations have been changing in response to increased global and domestic competition.

### **Module 1: Introduction to Cost Concepts**

Introduction: - Definition – Meaning and Scope - Cost Accounting and Financial Accounting Cost classification – Elements of Cost – Cost units- Cost center – profit center. Cost behavior Patterns – Classification of cost, Methods of Costing.

### **Module 2: Marginal Costing**

Marginal Costing Meaning-Definition-Difference between marginal costing and absorption costing and differential costing-Advantages and disadvantages- Break Even Analysis - Cost Volume Profit Analysis Simple break even chart Applications of Marginal costing – Breakeven Point, Determining the desired sales level; Make or buy- Sales mix decisions

### **Module 3: Relevant Costs**

Decision Making and relevant information- The concept of relevance-potential problems in relevant cost analysis- short run pricing decision

### **Module 4: Cost allocation and Activity Based Costing**

Product cost and period cost manufacturing cost Prime cost and conversion cost, calculating the cost of products, services and other objects- Job costing and overhead allocation- Activity based Costing – under costing and over costing

### **Module 5: Budgetary Control and Standard Costing.**

Budgetary Control- Master budget, cash budget and flexible budgets, Standard Costing, Differences between Standard Costing and Budgetary Control, Advantages and Limitations of Standard Costing.

### **Reference books:**

1. Horngren, Charles T., Srikant M. Datar, and Madhav Rajan. Cost Accounting: A Managerial Emphasis. 14th ed. Prentice Hall, 2012.
2. Accounting Principles 10th Edition, Jerry J. Weygandt, Paul D. Kimmel, Donald E. Kieso, John Wiley & Sons, Inc.
3. Robert Anthony, James S. Reece. Accounting: Text and Cases, McGraw Hill
4. Ronald W.Hilton ; David E, Platt(H&P), Managerial Accounting: Creating Value in a Dynamic Business Environment, 10th Edition
5. Colin Drury, Management and Cost accounting, Cengage Learning, New Delhi.

## **CRT2010 OPERATIONS RESEARCH (3 Credit)**

### **Objective:**

This course aims to provide the participants with an understanding of applications of optimization techniques useful in business decision-making. The course is application-oriented and will focus more on Problem formulation and definition from all stakeholder perspectives. Attempts will be made to expose the students to the available software applications which can be used in an unbiased manner to arrive at solutions.

Contents

### **Module 1:**

Introduction to Linear Programming Problem (LPP), Structure of LPP, Introducing the software QM for Windows (or equivalent software) - Solution to LPP - Graphical Method & Simplex Method -using QM for Windows (with less than or equal to, equal to and greater than or equal to constraints). Special situations in LPP- unbounded optimal solutions, alternate optimal solutions, infeasible LP Problems – using QM for windows

### **Module 2:**

Model formulation in LPP-application finance, marketing, human resource, operations etc. (Problems should be solved using QM for Windows or other equivalent software and the focus should be on the application/interpretation of the solution). Sensitivity Analysis in LPP

### **Module-3**

Introduction to Transportation Models (TP), Initial Feasible Solution -NWCR, LCM & VAM. TP Optimal Solution-MODI Method. Special Situations in TP. Solutions in TP using QM for Windows. Assignment Model and Optimal Solution (Hungarian Method), Special Situations in Assignment-Solution in Assignment Problems using QM for Windows

### **Module-4**

Introduction to Queuing Models, Queuing Models (M/M/1), Problems involving Queuing Models (M/M/1). Simulation, Basic concepts, Simulation, Monte Carlo Simulation

### **Module-5**

Introduction to Decision Theory, Game theory

### **Suggested Reading:**

1. J K Sharma, Operations Research: Theory and Applications, Macmillan India Ltd. 2011
2. Richard I Levin; David S Rubin; Joel P Stinson, Everette S Gardner, Quantitative Approaches to Management, Mc Graw Hill International Editions, 2009
3. Hamdy A Taha, Operations Research - An Introduction, PHI Publishers 2010.
4. Frederick S. Hillier , Gerald J. Lieberman , Bodhibroto Nag , Preetam Basu, Introduction to Operations Research , McGraw Hill; 11th edition
5. G. Srinivasan, Operations Research: Principles and Applications, PHI Learning

## Trimester 3

### **CRT3001 MARKETING MANAGEMENT – 2 (Credit 3)**

#### **Course Description:**

Marketing Management is a course revolving around various concepts of marketing strategies, practices and new techniques which vary with the demands and needs of the consumers. The course helps students in learning about the marketing process which involves planning, pricing and promoting the goods and services to the target market.

#### **Course Objectives:**

Students who complete this course successfully will be able to analyze and understand how the marketing mix elements help in delivering value. They will be able to analyze a marketing opportunity and write a marketing plan to address that opportunity. A must for both corporate marketing employees and budding entrepreneurs.

#### **Module 1 Designing Value (6hrs)**

Designing Value – Setting Product Strategy – Classification of Products, Product Assortment and Product Line Decisions, Branding Strategies, Packaging and Labeling; Designing and Managing Services – Services Marketing Mix, Managing Service Quality.

#### **Module 2: Pricing Value (6hrs)**

Pricing Value – Setting the Price, Developing Pricing Objectives, Strategies and Programs, Price Adjustments-Adapting the Price, Initiating and Responding to Price Changes, Pricing and the Law

#### **Module 3: Communicating Value (6hrs)**

Communicating Value – Designing and Managing Integrated Marketing Communications- Role of Marketing communication, Developing Effective Communication, Deciding on the communication mix, Introduction to digital marketing.

#### **Module 4: Delivering Value (6hrs)**

Delivering Value– Salesmanship – Process - Preparation, Prospecting, Pre-Approach, Sales Presentation, Closing of Sales – Modes of Sales Presentation – Sales Resistance – Objections and Obstacles – Buyer Dissonance – Reducing Buyer Dissonance. Designing and Managing Integrated Marketing Channels – Planning the channel of distribution, Intermediaries Functions, and Vertical Marketing Systems.

#### **Module 5: Sustaining Value (6hrs)**

Sustaining Value - Organizing and Controlling the Marketing Function – Marketing Control, Annual-Plan Control, Profitability Control, Efficiency control and Strategic Control, The Marketing Audit, Tapping into Global Markets, Introduction to Neuro Marketing, Sustainable Marketing.

#### **Text Book**

1. Philip Kotler, Keven Keller, Jagdish N. Sheth, Alexander Chernev and G. Shainesh Marketing Management, Pearson, New Delhi. 16th Edition, 2022
2. Ramaswamy and Namakumari, Marketing Management, MacMillan, New Delhi. 4<sup>th</sup> Edition, 2009
3. Rajan Saxena, Marketing Management, TMH, New Delhi. 6<sup>th</sup> Edition, 2016

## **CRT3008 CORPORATE FINANCE (Credit 3)**

### **Objective:**

The topics given in the subject shall cover the investment decision, financing decision and the dividend decision of a firm and all these put together maximizes the value of a firm

### **Module-1: Sources of Long Financing and Cost of Capital**

The Choices of Financing - Common Stock - Preference Stock - Debt - Costs and Benefits of Various Financing Choices - Bankruptcy Costs. Cost of Long Term Finance - Cost of Debt - Cost of Equity - Weighted Average Cost of Capital (Market Value and Book Value)

### **Module-2: Leverage**

Advantages and disadvantages of debt financing. Operating Leverage - Financial Leverage - Total Leverage. EPS-EBIT Analysis. Breakeven Point-Indifference point. Factoring impacting capital structure of a firm.

### **Module-3: Capital Structure Theories**

Capital Structure and Value of a firm – optimal capital structure - Theories of capital structure - NI Approach - NOI Approach - Miller Modigliani Theorem (with and without taxes)- Pecking Order Theory

### **Module-4: Dividends and Other Payouts**

Different Types of Payouts - Cash Dividend - Stock Dividends - Stock Splits. Theories on Dividend Policy- MM Hypothesis - Gordon Model - Walter Model - The Clientele Effect - Information Content of Dividends - Dividend Signaling. Formulation of Optimal Dividend Policy

### **Module-5: Working Capital Management**

Gross and Net Working Capital - Short-Term Financial Policy - Operating Cycle - Cash Conversion Cycle – Estimation of Working Capital Needs - Credit management: Credit Standard – Credit Period – Cash Discount – Collection Program – Factoring.

### **Suggested Readings:**

1. Fundamentals of Corporate Finance, Stephen Ross, Randolph Westerfield and Bradford Jordan, McGraw-Hill Education
2. Financial Management, I M Panday, Vikas Publications, New Delhi.
3. Principles of Corporate Finance, 10/e (SIE). Brealey, Myers, Allen, and Mohanty McGraw Hill Education (India) Private Ltd,
4. Financial Management and Policy, 12/e. James C. Van Horne, Sanjay Dhamija, Pearson Education
5. Fundamentals of Financial Management, Brigham Eugene F, Cengage learning
6. Corporate finance / Stephen A. Ross, Randolph W. Westerfield, Jeffrey Jaffe. — 10th ed. McGraw-Hill



## **CRT3003 HUMAN RESOURCE MANAGEMENT (Credits 3)**

### **Course Objectives**

Human Resource Management (HRM) deals with effective ways of people management. The course focus on the concepts and issues related to recruitment, selection, training & development, appraising performance, compensating the performance, and maintaining relation with the involved stake holders. This course intends to provide basic knowledge of managing people in organization. The course also explains how the people management relates to or essential for business success.

### **Module 1: Introduction to Human Resource Management**

Nature, Scope, Objectives and Importance of HRM. Evolution (Personnel Management, HRM, HRD, HPM, HCM, Employee Experience Management, Signalling theory, Hard and Soft HRM, High Performance Work Practices. Line and Staff aspects of HRM, Functions of HR Manager. Strategic Human Resources Management, SHRM tools. New approaches to organizing HR and emerging HR roles.

### **Module 2: Staffing**

Job analysis: Methods for collecting job analysis data, Job description & Job Specification. Human resource planning, Manpower forecasting, Strategic planning. Employer branding. Recruitment: Sources and methods of recruitment, Recruitment yield pyramid, New Approaches to recruitment. Selection: Process, Selection testing and interview process, Induction and orientation, Placement, Internal mobility and separations.

### **Module 3: Learning and Development**

ADDIE training process model, Training methods, Training evaluation, and Management development programs. Performance management & appraisal: Process and Techniques, Potential appraisal, Associated theories of motivation.

### **Module 4: Reward management**

Job evaluation, Elements of employee reward (Basic pay, Allowances, Bonus, Incentives, Statutory and Non-Statutory Benefits), Total Rewards (financial and non-financial rewards), Intrinsic and Extrinsic rewards.

Industrial relations: Industrial disputes: Causes, Forms, Preventive and settlement machinery. Trade unions and employee associations. Collective Bargaining, Grievance Handling, and Discipline. Employee Health, Safety, and Welfare.

### **Module 5 : Introduction to HR Measurement and Analytics**

Grey/Emerging trends in HRM: Gig work, remote and hybrid work - HRM in start-ups and small organizations - Experience versus Expertise - 9 hours scheduled work versus flexi-schedules & 9/80 hours workweek - Single Employment versus Moonlighting - misconceptions on Quiet Quitting

### **References**

1. Armstrong, M. & Taylor, S. (2020). Armstrong's Handbook of Human Resource Management.
2. Dessler, G. (2020). Human Resource Management. Pearson. Edition 16 Practice. Kogan Page. Edition 15
3. Dessler, G., & Varrkey, B. (2005). Human Resource Management, 15e. India: Pearson Education.
4. Dyer, C. & Shepherd, K. (2021). Remote Work. Redesign Processes, Practices and Strategies to Engage a Remote Workforce. Kogan Page.
5. McMackin, J. & Heffernan, M. (2020). Agile for HR: Fine in practice, but will it work in theory? Human Resource Management Review. DOI: 10.1016/j.hrmr.2020.10079
6. Oppong, T. (2018). Working in the Gig Economy. Kogan Page.
7. Rao, V. S. P. (2013). Human Resource Management–Text and Cases. New Delhi: Excel Books.
8. Yadav, R.S. & Maheswari, S. (2020). HR Analytics: Connecting Data and Theory. Wiley.

## **CRT3004 OPERATIONS MANAGEMENT II (3 Credit)**

### **Objective:**

The objective of this course is to provide insights into the management of strategic and functional issues in the operational environment of any organization. The course will also familiarize the students with the issues involved in managing supply chain and quality in an organization.

### **Module 1:**

Demand Forecasting - Quantitative Methods & Qualitative Methods of Forecasting, Facility Location Planning, Capacity Planning

### **Module 2:**

Production Planning System, Aggregate Production Planning, Master Production Schedule, Production Scheduling & Control , ERP, Lean and JIT production systems

### **Module-3**

Introduction to Projects, Project Formulation, Project categories, Project Constraints, Project Life Cycle, Development of Project Network, Introduction to PERT/CPM

### **Module-4**

Quality Management-Concept of Quality, Process Quality, Quality Tools, Managing Quality Improvement

### **Module-5**

Management of Constraints: ToC, Key assumptions, Five focusing steps, Constraints, reaking a constraint, Buffers, Applications

### **Suggested Readings:**

1. Mahadevan, B., Operations Management: Theory and Practice, Pearson Education, 3<sup>rd</sup> Edition
2. Heizer Render, Operations Management, Prentice-Hall , 2010
3. Chase, R, B., Sankar, R., Jacobs, R, F., & Aquilano, J, N. Operations & Supply Management, 12<sup>th</sup> Edition, McGraw Hill
- .4. William J. Stevenson, Operations Management, McGraw Hill; Standard Edition 11July 2022.5
5. J. Krajewski Le, K. Malhotra Manoj, P. Ritzman Larryr), K. Srivastava Samir , Operations Management: Processes and supply chain, Pearson Education

## **CRT3009 BUSINESS RESEARCH METHODS (3 Credits)**

### **Objective:**

The course aims at equipping students with an understanding of the research process, tools and techniques in order to facilitate managerial decision-making

### **Module - 1**

Introduction, Types of Business Research: Basic and Applied, Types and sources of data, the Research Process: Broad Problem Area, Relevance of Literature Review, The Research Process, Theoretical framework and Hypothesis Development

### **Module-2**

Elements of research design: Purpose of the study: Exploratory, descriptive and hypothesis testing, Types of investigations: Casual & Correlation, Study settings: Contrived and non-contrived Units of Analysis, Cross sectional & Longitudinal studies, Types and Measurement of variables Scales: Nominal, Ordinal Interval, and other types

### **Module-3**

Collection of data:- Data collection methods: Questionnaires, interviews, focus groups, surveys, observations, Advantages and disadvantages of data collection methods, Sampling, Population, sample frame, sample, sampling unit, Reasons for sampling, sampling process, Probability and non-probability sampling.

### **Module-4**

Analysis and Presentation of Data, Getting data ready for analysis, Getting feel for the data Descriptive Statistics, Testing of hypothesis, Data display and interpretation

### **Module-5**

Introduction to Multivariate techniques, Structural Equation Modeling Research report, and written report: purpose & audience, Characteristics of a well-written report Contents of a research report, Integral parts of reports, Introduction to important tools for Statistical Analysis

### **Suggested Reading:**

1. Donald, R. Cooper and Parmela, S. Schindler, Business Research Methods, Tata McGraw Hill, 2003
2. Kothari C.R, Wishwa Prakashan, Research Methodology Methods and Techniques, 2004
3. Kothari, C. R, Research methodology: methods and techniques, New Age Publications, New Delhi.
4. Deepak Chawla , Neena Sondhi, Research Methodology: Concepts And Cases, Vikas Publishing House
5. Roger Bougie , Uma Sekaran , Mala Srivastava, Research Methods for Business, 8ed, An Indian Adaptation: A Skill-Building Approach, Wiley

## **CRT3011 INTRODUCTION TO BUSINESS ANALYTICS (3 credits)**

### **Course Objectives**

- Understand how managers use business analytics to formulate and solve business problems
- Apply MS Excel to explore and interpret business data
- Understand the concepts and methods of Predictive and Prescriptive Analytics
- Apply various analytical models to predict the business outcomes.

### **Module I – Introduction to Business Analytics (3 hours)**

Value of Business Analytics, Producing insights from information through analytics, Categorization of analytical methods and models – Descriptive, Predictive, Prescriptive. Big Data analytics, Web and Social media analytics

### **Module II – Data Mining (4 hours)**

Business Data Overview - Sources and Uses of Business Data, Importance of Data Quality - Dealing with missing or incomplete data, Data preprocessing – cleaning, transformation, reduction, Introduction to Data Mining - Data Mining Process, Data Mining Algorithms – Association, Classification, Prediction, Clustering

### **Module III – Predictive Analytics: Classification Techniques (10 hours)**

Classification Techniques - Introduction to Classification Techniques, Theory of Tree based Classification Techniques: Decision Tree and Random Forest. Regression Techniques - Introduction to Linear and Non-Linear Regression Methods. Simple and Multilinear Regression: Excel implementation for MLR, Logistic regression

### **Module IV – Prescriptive Analytics (10 hours)**

Introduction to Prescriptive Analytics, Linear Programming, Linear Programming (LP) model building, LP Problem (LPP) – terminologies and assumptions, Sensitivity Analysis in LPP, Solving LPP, Range of Optimality, Shadow Price, Dual Linear Programming

### **Module V - Ethics of Data and Analytics (3 hours)**

Value-laden biases in data analytics, Ethical Theory and Data analytics, Privacy, data and shared responsibility

### **Textbook:**

1. Essentials of Business Analytics;  
Camm/Cochran/Fry/Ohlmann/Anderson/Sweeney/Williams ISBN: 978-1-285-18727-3

### **Additional References:**

2. Fundamentals of Predictive Analytics with JMP By Ron Klimberg and B. D. McCullough ISBN: 978-1-61290-425-2. Publisher: SAS Institute.
3. Discovering Knowledge in Data: An Introduction to Data Mining, Daniel T. Larose; Chantal D. Larose, Wiley, Second Edition.
4. Business Analytics: An Introduction. Edited by Jay Liebowitz. CRC Press

## **CRT3012 STRATEGIC MANAGEMENT (3 Credit)**

### **Course Objectives**

Strategic Management is a course, which assumes a broad view of the business eco system, which covers all stakeholders and influencing factors like buyers, suppliers, competitors, technology, the economy, capital markets, government, and global forces and views the external environment as dynamic and characterized by risk. The course takes a general management perspective, viewing the firm holistically and examining how policies in each functional area are integrated into an overall competitive strategy. Decision Making tools for developing competitive strategies, creating and defending competitive advantages, defining firm boundaries and allocating critical resources over long periods are discussed. Given a “flat world” it is imperative that decisions from a global perspective and multi sided markets are exposed to the students.

### **Module I: Introduction to Strategic Management**

Concept of Strategic management. The Importance of Strategic Management. Vision, Mission and Purpose. Dimensions and Levels of Strategy (Functional, Business & Corporate). Evolution of the field.

### **Module II: Strategic Analysis of a Firm**

Internal Environment: Resource Based View, VRIO framework, Dynamic Capabilities, Value Chain Analysis. Learning and Knowledge based View.

External Environment: Macro Environment, Porter’s Five Forces Model, ETOP. Strategic Groups.

### **Module III: Business & Corporate Strategy**

Business Level Strategy: PARTS framework, Generic Strategies

Corporate Level Strategy: BCG Matrix, Ansoff Matrix, Vertical Integration & Diversification.

Internationalization: National Context and Competitive advantage. Entry modes for global expansion.

### **Module IV: Strategic Implementation**

Frameworks for Strategic Implementation: Mc Kinsey's 7s Framework, Balance Score Card.

Strategic Risks involved in Implementation

### **Module V: Emerging Trends in Strategy**

Innovation in organisations, Platform Based Business Models. Strategic Agility & Ambidexterity.

### **References/Books**

- i) Charles W.L.Hill and Gareth R. Jones, Strategic Management Theory, An Integrated approach, Cengage Learning. (Preferred text book)
- ii) Thomas L. Wheelen, J.David Hunger and Krish Rangarajan, Strategic Management and Business policy, Pearson Education., 2006
- iii) Gerry Johnson, Richard Whittington, Kevan Scholes, Duncan Angwin, Patrick Regnér (2017) Exploring Strategy Text & Cases, 11th edition, Pearson, ISBN: 9781292145129
- iv) Lynch, Richard (2015) Strategic Management, 7th Edition, Pearson
- v) Dess, G. G. (2019). Strategic management: Text and cases. McGraw-Hill/Irwin.

# Trimester 4

## CRT4002 GLOBAL BUSINESS ENVIRONMENT (Credit 2)

### Objective:

This course is designed to develop an understanding of macro-environment issues relating to international businesses and the global economy with emphasis on non-business actors, institutions, and events.

### Module-1

Globalization: markets, production and debate, Organizational participants that make international business, Environments facing International Business.

### Module-2

Global trade environment: theories of international trade and role of government policies, Global Sourcing, Economic integration, Legal and political environment, Cultural dimension

### Module-3

Internationalization of firms: Foreign Direct Investment, Other market entry Strategies, Global human resource management.

### Module-4

Foreign Exchange market, International Monetary System, Global Capital Markets. Methods of payment in International Trade.

### Module-5

Strategy of international business: Standardization, localization, transnational and internationalization strategy.

### Suggested Reading:

1. Charles Hill, 'International Business: competing in the global marketplace' McGraw Hill, Ninth edition.
2. Ian Brooks, Jamie Weatherston, Graham Wilkinson, The International Business Environment Challenges and Changes, 2nd Edition - Sep 2010
3. Cavusgil, Tamer S., Gary Knight and John Riesenberger. International Business: Strategy, Management and the new realities, Pearson.2017
4. Carbaugh, Robert J, International Economics, Thomson. 2016
5. Cavusgil, Tamer S., Gary Knight and John Riesenberger. International Business: Strategy, Management and the new realities, Pearson.2017

# Trimester 5

## CRT5002 CREATIVE PROBLEM SOLVING (3 Credit)

### Course Description:

Throughout this course, students will acquire skills to enhance the flexibility and originality of their thinking, while examining various methods employed by managers and organisations to cultivate and maintain high levels of innovation. To promote engagement and creativity, the course will feature a variety of enjoyable, interactive activities. Throughout this course, students will be encouraged to develop a creative process that can be utilized in academic and professional environments, as well as in personal creative pursuits. By the end of the course, students are expected to possess the necessary tools to apply this creative process effectively and efficiently in a variety of contexts.

### Module 1

Creativity and its Importance in Business – Definitions of Creativity; Innovation, Invention and Knowledge; Importance of creativity in business; How creative thinking may be used in management; Blocks to Creativity – Need to be ready for change; Mindset and other barriers to individual creativity; Blocks to organizational creativity; Elements and conditions of creative organizations

### Module 2

Theories of Creativity and the Creative Problem-Solving Process – Creative thinking; Investment theory of creativity; Convergent and Divergent thinking; Cognitive theory; Analogical reasoning; Problem Solving and Ideation – Problem-solving process; Problem-solving process and creativity; What helps people get ideas; Qualities of a creative person; Thinking style; Personality; Learning style; Mood or emotions; Problems in groups;

### Module 3

Objective Finding, Fact Finding and Problem Finding/Definition – Objective finding; Fact finding and problem definition; Dimensional analysis; Redefinition approaches – laddering; goal orientation; boundary examination, ‘why’ method;

### Module 4

Problem-solving Techniques, Evaluation and Implementation of Ideas – Morphological analysis; Brainstorming and variants; Lateral Thinking and Associated Methods; Synectics; Paradigm-Breaking Techniques; Miscellaneous Ideation Techniques. Evaluation and Implementation– Evaluation methods; Qualitative evaluation; Financial evaluation; Mathematical evaluation; Payoff tables; Decision trees; Putting ideas into practice; Reducing resistance to change;

### Module 5

Decision Making and Problem Solving – Types of decision; Naturalistic decision making; Use of heuristics; Analytic Hierarchy Process; Prospect theory for decisions involving risk;

Textbook:

1. Proctor, T. (2021). Creative Problem Solving for Managers: Developing Skills for Decision Making and Innovation. New York: Routledge. (5<sup>th</sup> Edition)

References:

1. Van Gundy Jr., A. (2017). *Techniques of Structured Problem Solving*. Springer
2. H. S. Fogler and S.E. LeBlanc, (2013). *Strategies for Creative Problem Solving*, Pearson
3. Isaksen S. G., Dorval K. B., Treffinger, D. J. (2011). *Creative approaches to problem solving: a framework for innovation and change*. 3<sup>rd</sup> Edition. Sage



# Trimester 6

## CRT6003 ETHICS AND CORPORATE SUSTAINABILITY (3 Credits)

**Course Description:** This course discusses the concepts of ethics, corporate governance, corporate social responsibility, and corporate sustainability and explains how they can be applied in various business situations

**Course Objectives:** By the end of this course, students will be able to

- Apply the concept of ethics to resolve problems in the modern era of technology, globalization and environmental management
- Assess the practice of Corporate Governance in the global and Indian context
- Investigate sustainability reports w.r.t a company's resilience, productivity and development due to sustainability

### **Module 1: Ethics in today's world**

Introduction to ethics, morality and law, ethical principles, ethical theories and ethical dilemma, business ethics as a strategic management tool, organizational ethics and value chain, technology ethics, globalization and ethics, environmental ethics, ethical decision making (context based)

### **Module 2: Sustainability**

Sustainable development – concept and history, conventions and treaties on environment and sustainability, UNEP and SDGs, life cycle assessment, materiality assessment, ESG, environmental impact assessment, ethical audit, carbon trading and carbon markets

### **Module 3: Sustainability Reporting**

Sustainability practices, sustainability reporting and challenges, GRI framework and UN Global Compact, integrated reporting by listed entities in India, relation between integrated reporting and sustainability reporting, ISO 14000 series, green washing, jobs in sustainability – certifications, qualifications and opportunities, social entrepreneurship

### **Module 4: Corporate Social Responsibility (CSR) and Corporate Governance**

CSR definition and theories, importance of CSR, CSR laws, standards and guidelines, definition of corporate governance, models of corporate governance and board responsibilities, methodologies of corporate governance and board responsibilities, methodologies and safeguards for corporate governance, leadership and governance, corporate governance in India and abroad, whistle-blowing mechanism and employee protection

### **Module 5: Sustaining ethical behavior**

Market challenges of sustainable ethical behaviors, ethical codes and ethical trainings, ethical committee and integrity pact, principles of social and ethical accounting, ethical audit, ethical leadership, promoting and monitoring sustainable ethical behaviors

### **Textbook**

1. Michael Wühle. (2023). Making Sustainability Measurable: A Practical Book for Sustainable Living and Working. Springer Berlin.
2. Tracy Dathe; Rene' Dathe; Isable Dathe; & Marc Helmold. (2022). Corporate Social Responsibility (CSR), Sustainability and Environmental Social Governance: Approaches to Ethical Management
3. . Springer Switzerland

4. A.C.Fernando; K.P. Muraleedharan; & E.K. Satheesh (2019). Business Ethics - An Indian Perspective (3rd Ed.). Pearson Noida, India

## **References**

1. Petra Molthan-Hill. (2017). The Business Student's Guide to Sustainable Development: Principles and Practices (2nd Ed.). Greenleaf Publishing
2. William McDonough & Michael Braungart. (2002). Cradle to Cradle: Remaking the way we make things. North Point Press, New York
3. Jeffrey D. Sachs. (2015). The Age of Sustainable Development. Columbia University Press
4. Manisha Paliwal. (2013). Business Ethics (2nd Ed.). New Age Publishers, New Delhi, India

# MARKETING SPECIALISATION

## MM001 CONSUMER BEHAVIOUR (Credits 3)

### Course Objectives:

Students should be able to develop good understanding of the key terms, concepts, and theories of consumer behaviour, evaluate the principal theories of consumer behaviour; critically assess strengths, limitations, and applications, apply consumer behaviour concepts to real world marketing problems and develop better marketing programs and strategies to influence those behaviours and analyse the current trends in consumer behaviour; and apply them to the marketing of an actual product or service.

### Module I: Introduction to Consumer Behaviour

Introduction: Nature and Importance of Consumer Behaviour, The marketing concept.

Introduction to Consumer decision making, Levels of Consumer Decision Making - EPS, LPS, RRB. Motivation: Needs/Motives & Goals - Dynamic Nature of Motivation- Arousal of Motives — Trio of Needs Theory – Measurement of Motives

### Module II: Individual Determinants of Consumer Behaviour

Personality: Nature, Theories – Personality Traits and Consumer Behaviour – Product and brand personification, The Self and the extended self

Perception: Process, Consumer Imagery, Perceived Risk

Learning: Principles, Theories – Classical conditioning, Instrumental conditioning, observational learning, Cognitive learning

### Module III: Individual Attributes, Group Determinants of CB

Attitude: Attitude formation, Models of Attitude – Tri-Component Attitude Model, Multi-Attribute Models – ELM Model, Cognitive Dissonance, Attribution Theory.

Reference Group Influence: Types of Consumer Relevant Groups, Factors affecting Group Influence, Word – of – Mouth and Opinion Leadership – Strategic Applications

Family: Functions of Family, Family Decision Making, Family Life Cycle, Non – Traditional Families and Households.

### Module IV: Social Class, Environmental Influences on CB

Social Class: characteristics – Affluent, Middle, and Downscale Consumers - Social Class Mobility

Culture: Learning Cultural Values – Enculturation and Acculturation – Symbols and Rituals; Measuring Cultural Values – Cultural Values, Content Analysis, Field Observation, Value Measurements, Changing Cultural Trends in India.

Subcultures: Nationality and ethnicity, Religious affiliation, Geographic subcultures, generational subcultures, gender subculture.

Cross-cultural Consumer Behaviour: Cross-cultural Acculturation, Localization versus Standardization

### Module V: Marketing Ethics and Social responsibility

Consumer gifting behaviour--Diffusion of Innovation: Adoption process. Consumer rights, Socially responsible marketing, Dark side of marketing- Consumer terrorism, Addictive Consumption, Illegal acquisition and product use, exploitive marketing, Crafty promotional messages, and Techniques – Covert marketing, product placements, Offensive communication, Promoting social causes.

### TEXTBOOK:

1. Leon G. Schiffman, and Joseph Wisenblit, Consumer Behaviour 12e, 2019, Pearson – Preferred Text book.
2. Solomon, Michael R, Consumer behaviour : buying, having, and being, 13<sup>th</sup> edition 2020, Pearson.
3. Hawkins, Del I., Mothersbaugh, David L., and Kleiser, Susan, Consumer behavior: building marketing strategy 14<sup>th</sup> edition, 2019, McGraw-Hill

## MM002 B2B MARKETING (Credits 3)

### Course Objective:

At the end of the course students must be able to develop an understanding of business relationships and networks, acquire capabilities to carry out business marketing strategy in a global context and apply theoretical frameworks, models, and conceptual tools to solve business-to-business marketing problems.

### Module 1: Introduction to B2B Marketing

Nature of B2B Marketing, Business markets customers – Classifying Goods for business markets, Organizational Buying process, and Buyer Behavior- Buying situations, Buy, Grid Model – Buying Centre Concept – The Interpersonal Dynamics of Organizational Buying Behavior, Organizational forces, Customer Selection- TCO. Customer Relationship Management: Types of Relationships, Buyer-seller Relationship, Customer profitability – Activity-based costing, Profitable few.

### Module 2: Identifying Customers

Segmentation: Bases, Customer portfolio, Segmentation process, implementing segmentation strategy, Estimating demand, forecasting demand – Quantitative and qualitative methods. Strategic Planning Process: Components of Business Model, building strategic plan, Capturing Global advantage, Global market entry options, Global strategy.

### Module 3: Creating Value

Building Strong B2B Brand, Product Support Strategy- Product Policy, Product quality and customer value Developing– Product Life Cycle Analysis – Systems Marketing Concept – Management of Innovation and New Product Development: Diffusion of Innovation. Services for Business Markets: Full Customer experience, Delivering Effective Customer Solutions, Business Service Marketing – Challenges, Service Quality, Hybrid Offerings.

### Module-4: Delivering Value

Marketing Channels, Participants, Channel Design, Channel Administration. Marketing Logistics, Strategic Role of Logistics, and Logistics cost: Total Cost Approach – Cost Centre Concept, Impact on profit, Third party logistics. Pricing Process - Price Objectives, Demand Determinants, Value-based Pricing, Competition, - Pricing across Product Life Cycle – Competitive Bidding – Strategies for Competitive bidding.

### Module-5: Performance Evaluation and Marketing Communication

Managing Personal Selling function- Managing Sales Force, Sales administration. Marketing Performance measurement: Strategy map, Allocating Resources, Managing Customers for Profit, Marketing Control, Strategic Control, Annual Plan Control, Efficiency and effectiveness control, and Strategy implementation. B2B Social Media, B2B Advertisements, Advertisement Effectiveness, Trade Show Strategies.

### TEXTBOOK:

1. Michael D Hutt, Dheeraj Sharma, & ThomasW. Speh, *B2B Marketing – A South-Asian Perspective*, CENGAGE, 11<sup>th</sup> edition
2. Robert Vitale, Joseph Giglierano & Waldemar Pfoertsch, 'Business to Business Marketing Analysis and Practice', 2011, Pearson.
3. Blythe, J. & Zimmerman, A. *Business to Business Marketing Management*, 2013, 2nd Edition, Routledge.

## MM003 RETAIL MANAGEMENT (Credits 3)

### Course Objective:

Students who complete this course will be able to develop Knowledge of contemporary retail management issues at the strategic level, describe and analyze the way retailing works, specifically the key activities and relationships and various constituents of retail strategy, have an academic underpinning to the above through the application of retailing theory and research and understand the evolving trends in retailing such as e-commerce and use of digital technologies in retailing

### Module 1 Retailing: Definition and Basic concepts

Retailing - Definition, Functions, Importance, Retailing in India - Current Scenario, and its future prospects. Retailing from International Perspectives; Consumer Buying Decision Process, Influencing Factors, Consumer Shopping Behaviour. Types of Retailing. Concept of retail life cycle, Classification of retail store, the role of franchising in Retail. Multichannel and Omni channel retailing-

### Module 2 Retail Planning and Performance

Retail Planning - Purpose, Method, Structure and Monitoring the Plan; Retail Marketing mix - Strategies; Retail Brand Management - Positioning, Personality, Private labels, Measuring Financial Performance: Measures of Financial Performance, The strategic profit model, Measures of retail performance

### Module 3 Retail Merchandising, Location and Pricing

Merchandise Management, Meaning, Methods, Assortment and Inventory, Order fulfillment, Retail Location Decisions - Trading Area Analysis; Types of Locations; Site Evaluation; Store Design - Layout and Space Management; Visual Merchandising and Displays; Retail Pricing - Approaches, Influencing Factors, Price Sensitivity and Mark down Policy – EDLP.

### Module 4 Retail promotion and Human resource management

Retail Promotion - Setting Objectives, Role of Advertising, Sales Promotion, Personal Selling, Public Relations and Relationship Marketing in Retailing; Human Resource Issues and Considerations.

### Module 5 Modern trends in Retailing

Impact of Information Technology in Retailing, Integrated Systems and Networking, EDI, Supply chain decisions in Retail. E- Tailing Business Models, Future of E-tailing. Customer Analytics Market Basket Analysis, Clustering and Association rules, RFM Analysis.

### Text Book

1. Barry Berman and Joel R. Evans; Retail Management: A Strategic Approach, PHI, Thirteenth Edition

### Suggested Reading:

1. Michael Levy, Barton Weitz, Grewal, Retail management, McGraw Hill Ninth Edition
2. Chetan Bajaj, Rajnish Arya, Nidhi Varma Srivatava, Retail Management, Oxford Publishing, India

## MM004 INTEGRATED MARKETING COMMUNICATION (3 Credits)

### Course Objective:

This course is designed for students who seek careers in which they will make Integrative Marketing Communication's Decisions. The students in the course will be able to deliver a quality Promotional Mix accompanied by appropriate technology.

### Module I: Evolution of IMC and its Process; Promotions and Opportunity Analysis

Overview of IMC-Impact of IT on IMC Approaches-Modern trends in IMC. Relevance of Corporate Image-Brand Management. Consumer Buyer Behaviour (process) and its linkage to IMC. Modern trends in consumer buying environment. Promotions and Opportunity Analysis (POA) - Conduct Communication analysis- Promotional Strategy-Budget. Types of budgets.

### Module II: Advertising Management, Theory, Appeals and Designs

Advertising Management- choosing Agency-Advertising planning and research-advertising goals, advertising schedules. Advertising theory- Hierarchy of Effects-Means-End Theory-Verbal and visual images. Types of Advertising Appeals-Fear-Humor-Sex-Music-Rationality-Emotions-Scarcity. The structure of an Ad. Advertising Design-Message Strategies. Execution Frameworks and their sub-Types-Cognitive: Generic-Preemptive-USP-Hyperbole-Comparative. Affective: Resonance-Emotional.Conative: Animation-Slice of Life-Dramatization- Testimonials-Authoritative-demonstration-fantasy.

### Module III: E- Marketing, Alternative Marketing and Media

E-Marketing-Concerns. Interactive Marketing-Banner Ad-Blogs-Email marketing/newsletter-podcast-social networks-viral campaigns-search engine optimization. Alternative Marketing-Buzz marketing -Guerrilla Marketing-Product placement and branded entertainment- Life style marketing. Alternative Media venues- Video Game Advertising-Cinema advertising-In-Tunnel Advertising-Parking Lot Advertising-Escalator Advertising-Airline Inflight Advertising-Carry home menus-POP tactics. Brand communities.

### Module IV: Direct Response Marketing, Sales Promotions and other forms of Marketing

Database and Direct response marketing- Life time value analysis-RFM Analysis-Permission marketing. Sales promotion- Coupons-premiums-contest and sweep stakes-refunds-sampling-types of Sampling-Price-Off-Trade-Promotions-Allowances-Incentives-Shows and Contests. PR and sponsorship programmes. Cause related Marketing-Green Marketing-Preventing or reducing image damage. Sponsorship and Event marketing

### Module V: Measuring Media Cost and Evaluating IMC

Measures of Media Cost Efficiency-Reach-Frequency-Continuity-OTS-GRP-CPM-CPRP-Research-Effective reach and frequency. Recency Theory-Intrusion value. Types of media selection- Pros and cons. Evaluating IMC- Concept Testing-Copy Testing-Recall-Recognition Test-Attitude and opinion Test-Emotional Reaction Test-Physiological arousal Test. Evaluation criteria- Principles of PACT. Evaluating PR and overall IMC.

### TEXT BOOK

1. Kenneth E. Clow and Donald Baack, Integrated Advertising, Promotion and Marketing Communications, Pearson, 8th edition
2. Wells, Burnett & Moriarty. Advertising Principles and Practices, Prentice-Hall, 8<sup>th</sup> Edition
3. Belch G.E, Belch M.A, K Purani, Advertising & promotion: An IMC Perspective, 7<sup>th</sup> Ed, TMGH

## MM005 MARKETING RESEARCH (Credits 3)

### Course Objective

Students will get the necessary background information about marketing research, critical in obtaining the relevant market information to aid managerial decision-making. Students will become familiar with the process of designing marketing research, and a Variety of tools and techniques for analyzing data for input to management decision-making. Students will get training on advance analytical tools for data reduction, product design, market segmentation, Brand positioning.

### Module 1- Introduction to Marketing Research

Introduction to marketing research, various types of marketing research (qualitative, quantitative), Research process, Steps in research process. Research design, Classification of research designs: Exploratory, Descriptive & causal research.

Introduction to qualitative research methods, philosophical assumptions, formulation of a qualitative research problem, qualitative research approaches: Case Study, Grounded theory, Phenomenology- The lived experience, Hermeneutics, Critical theory, Action Research.

### Module 2- Quantitative Research Data Collection

Sampling and sampling methods: Probability and non-probability sampling methods. Primary scales of measurement: Nominal, Ordinal, Interval & Ratio scales. Measurement and Scaling techniques. Designing a questionnaire, Errors in designing Questionnaires. pilot testing the questionnaire, Questionnaire design and data collection through Google forms, Question Pro, Survey Monkey, Qualtrics. Reliability and validity, data cleaning

### Module 3 - Variable and Basic Analysis of quantitative data

Defining Market Research Problem and Developing an approach. Variables, Types of variables. Independent & dependent variables. Moderating, Mediating, Extraneous, Noise, Spurious & Suppressor variables. Correlation and Regression for association and causation: Correlation concept and application (Pearson Correlation). Regression: Bivariate and Multivariate regression, Statistics and term associated with Regression analysis, Assumption.

### Module 4 Data analysis for data reduction and product design

Factor Analysis for Data Reduction: Basic concept, Statistics and term associated with Factor analysis, Process of conducting Factor analysis, Application of factor analysis. Conjoint Analysis for product design: Basic concept, Statistics and term associated with conjoint analysis, Process of conducting conjoint analysis, Assumption and limitation of conjoint analysis.

### Module 5 Data analysis for market segmentation and brand positioning

Cluster analysis for market segmentation: Basic concept of Cluster analysis, Process of conducting cluster analysis, Application of cluster analysis. MDS for Brand positioning: Basic Concept of Multidimensional scaling, Statistics and term associated with Multidimensional scaling, Process of conducting Multidimensional scaling, Assumption and limitation of Multidimensional scaling.

### Text Book

1. Naresh K Malhotra, Marketing Research – An Applied Orientation, Pearson Education,6th edition
2. Beri, Marketing Research, Tata McGraw Hill, 5th edition
3. Rajendra Nargundkar, Marketing research, Tata McGraw Hill , 3rd edition
4. Russell Belk, Eileen Fischer, Robert V Kozinets, “Qualitative Consumer and Marketing Research”, 1<sup>st</sup> Edition, 2013, Sage Publication.
5. John W. Creswell, Cheryl N. Poth, “Qualitative Inquiry & Research Design”, 4<sup>th</sup> Edition, 2018, Sage

## MM006 BRAND MANAGEMENT (Credits 3)

### Course Objective

1. To understand the basic concepts of Product Management and Brand Management
2. To apply various concepts of branding in various business scenarios
3. To analyse the branding strategies used by successful as well as failed brands

### Module 1 Introduction to Product Management

Introduction to Product Management - typology of products, Product development with the stage-gate process, the role of a Product Manager, product policy, changes impacting product management. Marketing Planning Process: Category Attractiveness Analysis, Competitor Analysis, Consumer Analysis, Developing Product Strategy – Setting Objectives, Selection of Strategic Alternatives, Differentiation, and Positioning

### Module 2 Introduction to Brand Management

Introduction to Branding - strong brands, how are brands built, product vs. brand, brand differentiation, what can be branded? Why do brands matter to consumers and firms? Roles played by brands, Brands for customers, choosing brand elements and brand names.

### Module 3 Managing Brand Identity and Hierarchy

Brand Identity- Brand Personality, Brand Image, Kapferer's Brand Identity Prism - Designing and Implementing Brand Architecture Strategies - Brand Extension Decisions – Branding Strategy / Architecture, Brand Product Matrix, Brand Hierarchy, Branded House, House of Brands, three branding strategies: - master brand, endorsed and individual brands

### Module 4 Managing Brand Equity

Brand Equity - Aaker's model of brand equity, creating new brand associations – company, country of origin, co-branding, Ingredient branding, licensing, celebrity endorsements, sporting cultural or other events, third party sources, Keller's CBBE Model, developing an effective integrated marketing communication to build brand equity, brand equity measurement. E-branding.

### Module 5 Managing Brand Over Time

Brand Value Chain, Reinforcing Brands, Revitalizing Brands, Adjusting Brand Portfolio methods, protecting brands, Brand turnaround: other rejuvenating strategies – product innovations, re-launching the brand, repositioning the brand, new uses of the brand,

### TEXT BOOK

1. Kevin Lane Keller, Vanitha Swaminathan, Strategic Brand Management: Building, Measuring, and Managing Brand Equity, Pearson Prentice Hall. 5<sup>th</sup> edition, 2019(**Mandatory Reading**)
2. Donald Lehmann & Russel S Winner, Product Management, McGraw-Hill Education (India) Pvt Limited, 4<sup>th</sup> edition, 2005(**Mandatory Reading**)
3. Kirti Dutta, Brand management: principles and practices, Oxford University Press, Edition, 2016.
4. Jean-Noel Kapferer, Kogan Page, The New Strategic Brand Management: Creating and Sustaining Brand Equity Long Term, London, 2008, 4th edition
5. Leslie de Chernatony, Malcolm McDonald, & Elaine Wallace, Butterworth-Heinemann, Creating Powerful Brands, 4th edition



## **MM007 RURAL MARKETING (Credits 3)**

### **Course Objective**

Students who complete this course successfully will be able to understand the importance of Rural Markets, understand different segmentation for rural markets and key differences in rural consumers and urban consumers, sensitize to the needs and behaviour of consumers and channels and utilize the understanding on peculiarities of rural markets, channels and competition in marketing decision making.

### **Module 1 Introduction & Rural Marketing Environment**

Introduction: Definition, scope of rural marketing, concepts, components of rural markets, classification of rural markets, rural vs. urban markets. Rural marketing environment: Rural Environment, Rural Economic Environment, Rural Infrastructure.

### **Module 2 Rural Consumer Behaviour & Rural STP Strategies**

Rural Consumer behaviour: Consumer buying behaviour models, Factors affecting Consumer Behaviour, Information Search and pre-purchase Evaluation, Rise of Consumerism, Consumer Buying Process, Opinion Leadership Process, Diffusion of Innovation, Brand Loyalty. Rural Marketing Strategies: Segmenting, Targeting and Positioning strategies.

### **Module 3 Rural Product & Branding Strategies**

Product Strategy: Introduction, Marketing Mix Challenges, Product concepts classification- Five Levels Products, Classification of Products, Rural Product Categories. New Product Development Consumer Adoption Process, Product life cycle, Product Mix. Branding in Rural India- Brand building in Rural India, Brand Spectrum in Rural, Brand Loyalty Vs Stickiness Fake Brands- The Fakes Market.

### **Module 4 Rural Distribution Strategy**

Distribution Strategy: Introduction: Accessing Rural Markets, Coverage Status in Rural Markets, Channels of Distribution, Evolution of Rural Distribution Systems- Wholesaling, Rural Retail System, Vans, Emerging Distribution Models-Corporate – SHG Linkage, Satellite Distribution, Syndicated Distribution, ITC's Distribution Model, Petrol pumps and Extension counters, Barefoot agents, Agricultural agents, Agricultural input dealers, Other channels, Ideal distribution model for Rural.

### **Module 5 Rural Communication Strategy & Future**

Communication strategy: Challenges, Communication Process, Developing Effective- Mass media, Non- Conventional Media, Personalized media. The future of Rural Marketing: Introduction, Focused Marketing Strategies, Market Research, Consumer Finance, Rural Vertical, Retail and IT Models, Rural Managers, Glamorize Rural Marketing, Public- Private Partnership, e-Rural Marketing

### **TEXT BOOK**

1. Pradeep Kashyap, Rural Marketing, 3<sup>rd</sup> edition, Pearson India Education Services Pvt. Ltd., 2019
2. T.P. Gopaldaswamy, Rural Marketing Environment, Problems & Strategies 3<sup>rd</sup> edition, Vikas Publications, 2009.
3. Balram Dogra, Rural Marketing Concepts and Practices, 1<sup>st</sup> edition, Tata McGraw Hill, 2010.
4. C.S. G. Krishnamacharyulu, Lalitha Ramakrishnan, Rural Marketing: Text and Cases, Delhi, PHI 2010

## **MM008 SERVICES MARKETING (Credits 3)**

### **Course Objectives**

Students who complete this course successfully will be able to analyse and discuss key concepts in services marketing, develop a sound theoretical framework to analyse and derive insight into practical implementations of services industry and demonstrate the understanding of Service Marketing techniques to analyse business problems and issues faced by services marketers today.

### **Module-1: Introduction to Services Marketing**

Introduction to Services Marketing: Definition – Role of services in economy – Evolution and growth of service sector – Services and Technology – potential for new services - Unique Characteristics of Services – Challenges and issues in Services Marketing.

### **Module-2: Customer Behaviour & Strategic Issues**

Consumer behavior in services – search, experience and credence properties of services, Assessing services market potential, Classification of services – Inadequacy of 4 Ps, Expanded marketing mix – Servicescape – Service market segmentation, targeting and positioning.

### **Module-3: Services Gap Model and Quality**

Service Life Cycle – New service development – Service Blue Printing – GAP Model of Service Quality – Customer perceptions of Quality and customer satisfaction, Service Quality Dimensions – Reliability, Assurance, Tangibles, Empathy and Responsiveness, Measuring service quality – SERVQUAL

### **Module-4: Services Recovery, Pricing and Relationship Marketing**

Service Recovery - Impact of service failure and recovery, Customer respond to service failures, Designing service delivery System - Pricing of services, building customer relationships – relationship marketing, relationship value of customers, service marketing triangle, Integrated Service marketing communication.

### **Module -5: Delivering and Performing services**

Employees' role in service delivery: service culture, critical importance of service employees, Boundary-spanning roles, Delivering services through intermediate and Electronic Service Channels

### **Textbook**

1. Zeithamal, Valarie A and Bitner, Mary Jo, Services Marketing, Tata McGraw-Hill Publishing Company, 6<sup>th</sup> Edition, 2013.
2. H. Lovelock, Christopher and Jochen Wirtz, Services Marketing, Pearson Education, New Delhi, 2013, Seventh Edition
3. Hoffman, Cengage Learning, Marketing of Services, 1st Edition, 2008.
4. K. Douglas Hoffman et al, Essentials of Service Marketing: Concepts, Strategies and Cases, Thomson Learning, 2nd Edition.
5. Helen Woodruff, Services Marketing, Longmen Group, New Delhi.
6. Adrian Payne, the Essence of Services Marketing, Prentice Hall, India

## **MM011 SALES AND DISTRIBUTION MANAGEMENT (Credits 3)**

### **Course Objective**

Students will be able to develop understanding regarding the sales force strategy and distribution strategy of a company. Students will be able to analyse and assess the opportunities and challenges in the market for sales and distribution for a company. Students will be able to apply the knowledge of sales and distribution management to strategize and execute plans and make informed decisions

### **Module 1: Introduction to Sales Management, Personal Selling Process, Sales organization– Sales vs Marketing**

Theories of Sales - Buyer Seller Dyads – AIDAS Theory – ‘Right Set of Circumstances’ Theory – Buying Formula Theory – Behavioral Equations Theory, Sales Forecasting Methods, Personal Selling Process. Negotiation tactics – Distributive and Integrative Negotiation- BATNA— Sales Management Structure – Sales Management Positions – Role and Functions of Sales Manager – Inter Department Relations.

### **Module 2: Sales Force Management**

Recruiting, Selection and Training of Sales Force - Work Assignment to Sales Personnel – Routing and Scheduling of Sales Force – Objectives of Sales Quotas – Types of Quotas – Quota Setting and Administration – Concept, Objectives and Procedure of Setting Sales Territories. Estimate the size of Salesforce- workload method, sales potential method and incremental workload method.

### **Module 3: Motivating Salespeople, Compensation, And Controlling**

Compensation to Sales Force and Controlling – Personal Selling: Motivating the Sales Team: Motivation Programs, Monetary and Non-monetary Compensation, Evaluation of Sales Force - Controlling of Sales Force – Sales Records and Reporting Systems – Controlling of Expenses – Sales Budget – Sales Audit. Sales Planning and Control: Goal Setting, Performance Measurement, Diagnosis and Corrective Actions.

### **Module 4: Channel Management**

Physical Distribution, Participants in Physical Distribution Process, Distribution Policy, Strategic Issues in Distribution, Channel Design, Different Forms of Channels – Integrated Marketing Channels – Horizontal, Vertical, Multi-Channel Marketing Systems Channel Selection. Channel Evaluation. Legal Aspects of Channel Management

### **Module 5: Distribution Strategy and Supply Chain Management**

Supply Chain Management – Concept – Significance – Components, Logistics Management and its role in supply chain management–Inventory Management, Reverse Logistics. Global supply chain. Distribution in the rural areas. e- distribution: e-Distribution models, advantages and disadvantages, intermediary models, multichannel environment. Managing channel relationships and managing channel conflicts.

### **TEXT BOOK:**

1. Sales And Distribution Management - Tapan K.Panda, Sunil Sahadev, Oxford Publishing, India (3<sup>rd</sup> edition)
2. Marketing Channels- Louis Stern, Adel El Ansary, Coughlan, Anderson & Natarajan (Pearson- 7th Edition)
3. Still, Cundiff, Govoni – Sales Management: Decisions, Strategies & Cases – Prentice Hall, India. (6<sup>th</sup> edition)
4. Anderson R, Professional Sales Management – Englewood Cliff, New Jersey, Prentice Hall, India.
5. Sell – Subroto Bag chi
6. What the CEO wants you to know – Ram Charan

## **MM013 INTERNATIONAL MARKETING (Credits 3)**

### **Course Objectives**

Students who complete International Marketing successfully will be able to/have an understanding of analysis of the global market environment, understanding of the concept of international marketing research, tools and promotional strategies, understand the core meaning of marketing and international marketing and learn that international marketing is about striking the right balance between maximizing the similarities across cultures and customizing marketing to important local differences.

### **Module 1 Introduction to International Marketing-I**

Marketing Concepts, Global Marketing; Key drivers of global marketing; Why Should companies internationalize? Nature, importance and scope of international marketing international market orientation and involvement; The International Marketing Planning Process.

### **Module 2 Introduction to International Marketing-II**

Country Selection –Environmental Analysis. International Institutions. Scanning and monitoring global marketing environment; International marketing information system. Trade Policy and impact on IM; Global Marketing Strategies and key decision factors; Global Entry Strategies.

### **Module 3 Market strategy and Product decisions in International Marketing**

Challenges of International Marketing Research, International Market Entry Strategies; Global Customer analysis; Global Customer Behaviors; Product Planning; Major Product and Services decisions. International Market Segmentation and Positioning; Screening and Selection of Markets. Product standardization vs. Adaptation; Managing Product line; International Product life cycle.

### **Module 4 Pricing and Distribution decisions in International Marketing**

Pricing for International Markets: Factors affecting international price determination; International pricing process and policies. Delivery terms and currency for export price quotations; Transfer pricing. International Distribution Decisions: Distribution channel strategy.

### **Module 5 Recent Trends in International Marketing**

International Marketing -Organizing and Control; Emerging Trends in International Marketing; Sustainable Development in Global Marketing; Sustainable Marketing and Global Consumers; Cause-Related Marketing in Global Context; Global e-marketing, Components of Electronic Value Chain.

### **Textbook**

1. Warren J. Keegan and Mark C. Green Global Marketing, Global Edition, 10th edition, Pearson Publications.
2. Kotabe, Masaaki and Helsen Krtiaan: International Marketing, Wiley, 7<sup>th</sup> ed.
3. Cateora, Phillip R. and Graham L John, International Marketing, Irwin McGraw Hill, Boston.18<sup>th</sup> edition
4. U.C, Mathur, and International Marketing: Text and Cases, Sage India.

## MM014 DIGITAL MARKETING (Credits 3)

### Course Objective

1. Students will get necessary background knowledge on contemporary digital marketing topics on online advertising (Google), and user generated content platforms (Facebook, Twitter, Youtube) to build *digital marketing strategies* by defining audiences, goals, and KPIs.
2. Students get hands-on training on digital marketing tools and techniques by SEO (Search Engine Optimization) on Google and campaign management on User Generated Content platforms (Facebook)
3. Students will get exposure to Social media platforms and various tools and techniques to utilise it for the purpose of marketing of product and services.

### Module 1: Introduction to Digital Environment

Fundamentals of digital marketing, New Business Models of the Digital Economy: Principles and Examples (Sharing economy, customer co-creation of products/services, User Generated Content, Freemium Models), Trends in online marketing – e-WOM, digital-only companies, Digital Marketing Platforms – Social Media platforms like Facebook, Twitter, Instagram; Advertisement platforms like Adwords, Facebook Ads; Video Content Platforms: Netflix, Amazon Prime, Youtube, Mobile App. e-commerce platforms: Flipkart, Amazon, Myntra

### Module 2: Digital Marketing Tools and Techniques

Search Engine Optimization (On Page SEO and Off Page SEO) and Search Engine Marketing Fundamentals, KPIs and keyword strategies, Types of Keywords, Google Keyword Planner, Keyword Research and Analysis, Free Keyword tools, Google AdWords: Campaigns settings, Ad Group setup, Understanding Ad Auction, Display Advertising, Creating a Display Campaign, Bidding Strategies, Quality score and Remarketing

### Module 3: Social media and Online advertising

Social media marketing tools (Facebook Ads Manager), Social Media Strategy, Impact of Social Media on SEO and SEM, Evaluation of Online Display Campaigns (Facebook Analytics, Google Analytics), KPIs of Analytics (Visits, Bounce Rates, Traffic Management, Site speed), Influencer Marketing, Content Marketing, E-mail marketing Strategies

### Module 4: Digital Marketing Strategy

Defining online audience, relationship between integrated marketing communication (IMC) and digital marketing, Search Console, AdSense, Digital world opportunities challenges (Consumer Privacy, Ad Safety, Geolocation targeting by Mobile Ads, Dynamic Pricing in online mediums, Brand Community, Brand evangelism)

### Module 5: Digital Marketing Channels (e-commerce)

E-commerce in India, Understanding E-commerce Business models, Omnichannel shopping behavior, customer journeys (maximizing conversions, repeat purchase), marketplace model (own brand store online vs. Ad Tech platforms), category management in e-commerce firms

### Text Book

1. Digital Marketing - Seema Gupta, McGraw Hill, 1<sup>st</sup> Publications, 2018
2. Digital Marketing: Strategy, Implementation & Practice, Dave Chaffey & Fiona Ellis-Chadwick
3. Smith P R Chaffey Dave, E-Marketing Excellence: The Heart of E-business, Butterworth Heinemann, USA
4. The Social Media Bible: Tactics, Tools, & Strategies for Business Success, Lon Safko
5. Global Content Marketing, Pam Didner

## MM015 MARKETING ANALYTICS (3 credits)

### Course Objectives:

Students will be trained on data driven decision making in the context of marketing. Students get do hands on exercise using Tools such as R, Excel, Nvivo and SPSS and Watson which will add to their skillset. Students will get good exposure to the applications of Machine Learning and AI. After completing this course, students will get the necessary skills and knowledge to pursue roles emerging in data science, IT, consulting, Analytics companies as well as analytics role in other industries.

### Module 1 – Introduction to Marketing Analytics

Introduction to Marketing Analytics – Descriptive, Predictive and Prescriptive Analytics ;Big Data – Big Data Architecture; Artificial Intelligence – Machine Learning – Deep Learning; Supervised - Unsupervised and Reinforced Learning- - Introduction to Data Collection Tools like Amazon MTurk - Qualtrics -Survey Monkey.

### Module 2 – STP Analytics

RFM Analysis - Clustering – K means and Hierarchical Clustering, K Mode clustering; Dimensionality reduction techniques – Factor Analysis and Principal Component Analysis - Positioning - Perceptual map – attribute ranking method and overall similarity method -Brand Image Profiling - Measuring Brand Equity using Nielsen's model.

### Module 3 – 4P Analytics

Forecasting Product sales – New product Sales – Bass Diffusion Model; Product Validation - TRB Model - Conjoint Analysis - Discrete choice modelling, Fishbein choice model; Linear and Non-linear demand curves- Elasticity modelling -Van Westerdorp Pricing- BPTO-Gabor Granger Pricing Method; Marketing Mix Model -Attribution modelling -Media Mix Model - Measuring Advertising Effectiveness.

### Module 4 – Customer Analytics

Customer Analytics -Sentiment Analysis– Text Analytics – Topic Modelling - Word cloud - NPS - Market Basket Analysis - Recommendation systems - Customer Acquisition- Management and Retention Metrics, Customer Lifetime Value - Churn Modelling.

### Module 5 – Simulation and Experiments

Designing Service Warranty Field plans- Monte - Carlo Simulation for a casino, Service Business Simulation; One way Anova- Two way Anova without replication –Two way Anova with replication – Interaction effect - Latin Squares – Factorial Design - $2^k$  factorial designs – blocking and confounding in  $2^k$  factorial design – Before - After Experiments.

### Suggested Readings

- 1) The science of data driven decision making – U Dinesh Kumar
- 2) Pricing, Online Marketing Behaviour and Analytics – Giampaola Viglia
- 3) Principles of Marketing Engineering – Gary Lilien, Arvind Rangaswamy
- 4) Design and Analysis of Experiments – Douglas C Montgomery
- 5) Handbook of Marketing Analytics – Natalie Mizik, Dominique M Hanssens
- 6) Marketing Analytics – Wayne Winston
- 7) Marketing Research using R - Chapman
- 8) Marketing Analytics - Rajkumar Venkatesan
- 9). Marketing Analytics - Mike Grisby
- 10). Essentials of Marketing Research - Naresh Malhotra
- 11). Marketing Analytics – Ashok Charan

## **MM016 DESIGN THINKING (Credits 3)**

### **Course Objectives**

1. To introduce students to a new approach—design thinking—that enhances innovation
2. To strengthen students' individual and collaborative capabilities to identify customer needs, create sound concept hypotheses, collect appropriate data, and develop a prototype that allows for meaningful feedback in a real-world environment
3. To enable students to use Design Thinking to solve Business Problems

### **Module 1 Introduction to Design Thinking**

Design Thinking – Design Thinking Mindset – Innovation – Innovative Organisation – Innovation and Problem-Solving Model – Innovation Framework – Design – Design Inquiry – Design Thinking Model

### **Module 2 Emotional Intelligence**

Emotional Intelligence – Emotions – Managing Emotions – Intelligence – Emotional Intelligence Model – Goleman Framework

### **Module 3 Empathy**

Empathize – concepts of empathy in design - Empathy Map – Design Inquiry Models

### **Module 4 Problem Identification**

Problem Identification - Defining the Problem – 6 Step Process – Sub System – Super System– Interaction Matrix – Deep Dive Ideation - Structured Ideation – Idea to Innovation – Convergent & Divergent Thinking - Idea Ranking – Assumption Mapping - Designing an Experiment

### **Module 5 Prototyping and Testing**

Prototyping – Developing a Prototype – Experiment vs Prototype – Testing & Validation – Acquiring Design as Management Capability

### **SUGGESTED READING:**

1. The Design of Everyday Things, Don Norman, Basic Books (2013)
2. Roger L. Martin - The Design of Business\_ Why Design Thinking is the Next Competitive Advantage-Harvard Business School Press (2009)
3. Tim Brown - Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation, HarperCollins, 2009
4. Laszlo Moholy Nagy. Vision in Motion, 1937
5. Herbert A Simon. The Science of the Artificial, 1969
6. Peter Rowe. Design thinking, 1987
7. Bryon Lawson. How designers think, 1980
8. Richard Buchanan, Wicked problems in design thinking, 1992
9. The Thames and Hudson Encyclopedia of 20th Century Design and Designers, Guy Julier, Thames and Hudson (1993)

## **STRATEGIC MARKETING (Credits 3)**

### **Course Objective**

Students who complete this course successfully will be able to analyse marketing opportunities and threats in evolving environments; develop and critically assess appropriate marketing strategies to achieve competitive advantage, formulate the activities and organizational structures required to implement, monitor and measure the performance of marketing strategies; segment and target markets and position products and services against market needs and competitive offerings and effectively communicate marketing knowledge and outcomes in both oral and written formats.

The course will be conducted in an interactive mode. There will be case studies and group and individual assignments. Students are expected to come prepared and participate actively in the class and case discussions.

The course presumes a basic knowledge of marketing. Marketing Management 1 will be a prerequisite.

### **Module 1 Introduction**

Marketing management in dynamic environments, Marketing concept - Marketing stakeholders - Strategic marketing management process-The new realities of marketing.

Marketing strategy and corporate/business strategy - Strategic marketing plan.

### **Module 2 Analysis for strategy formulation**

Internal and external analysis. Analysing firm resources and capabilities - Analysing the marketing environment- Customer analysis- Competitor analysis- Information for marketing decision making.

### **Module 3 Segmentation targeting and positioning**

Competitive marketing strategies and segmentation, targeting and positioning. Types of strategies- types of segmentation- targeting and positioning.

### **Module 4 Marketing strategy in action**

Marketing strategies in action - Product based strategies and new product innovation- price based strategies- distribution based strategies- communication based strategies- digital marketing.

### **Module 5 Implementation, monitoring and control**

Organisational issues, monitoring and control, Organization structure - controlling marketing strategy- methods and metric for evaluation- budgeting.

### **Textbook**

1. S Musadiq A. Sahaf, Strategic marketing: Making decisions for strategic advantage, PHI learning, Second edition.
  2. O. C. Ferrell Michael Hartline, Marketing Strategy Text and Cases, CENGAGE INDIA, 6th Edition
  3. Robert Palmatier & Shrihari Sridhar, Marketing Strategy: Based on First Principles and Data Analytics, Second edition, 2021
- Some recent articles to be included.



# FINANCE SPECIALIZATION

## FM007 FINANCIAL & CAPITAL MARKET SERVICES (Credits 3)

### Course objectives:

The course aims to familiarize the students with the various aspects of financial services and associated operations, give students a general understanding of the Financial Services and Capital Markets in India and the operations and processes involved, enable the students to appreciate and understand the role, responsibilities and scope of activities carried out by financial intermediaries and regulators and impart practical knowledge and skills to those looking for careers in financial services (including banking) and back-office operations and will also help them get NISM certified.

### Module 1

Financial services and intermediaries. Concept and role of a mutual fund, Mutual Fund Structure and Constituents, Legal and regulatory environment, Mutual Fund products, Tax Aspects of Mutual Fund Products, Operational Concepts, Investors in MF, FATCA, Banking operations in MFs, Financial Transactions, Non-Financial Transactions

### Module 2

Fund distribution and channel management practices, Investor services (KYC, Transactions through RTA, Transactions through stock exchange, investment plans and services), Return Risk and Performance of Funds (Drivers of Risk and returns in a scheme, measures of return, measures of risk, benchmark and performance, quantitative measures of fund manager performance, sources of data to track mutual fund performance), Selecting the right investment product for investors.

### Module 3

SEBI's regulation and compliance requirements applicable to Intermediaries. Stock exchange and clearing house operations (Trading, Clearing & Settlement), Risk Management by stock exchanges. Securities broking operations, risk management and compliance. Other services offered by brokers.

### Module 4

Instruments and methods available for raising capital (including foreign capital). Regulations applicable to issue of capital. Role of intermediaries like Merchant banker, underwriter, brokers, and RTAs in issue of capital. Methodology applicable to pricing of public issues. Venture capital and private equity as sources of capital.

### Module 5

Financial Institutions, Instruments and Services associated with trade finance and supply chain finance. Financial services associated with Insurance. Leasing & Hire purchase. Money markets (Products, regulators, processes and services). Instruments used for direct finance by corporates and institutions. Credit rating & Financial Information Services.

### Reference Books

1. Financial Markets Operations Management (The Wiley Finance Series) 1st Edition by Keith Dickinson (Author)
2. M. Y. Khan; Financial services 7th edition; McGraw Hill Education India (MYK)
3. Stephen g. Cecchetti; Money, banking & Financial Markets; McGraw hill international edition (SGC)
4. RBI Reports, Guidelines and Master circulars on Banking (RBI)
5. IRDAI General guidelines and circulars on Insurance (IRDAI)

## FM002 COMMERCIAL BANKING & FINANCE (Credits 3)

### Objective:

The course aims to introduce students to commercial banks and how they deliver their services. The topics covered include an overview of commercial banking, financial statements of banks, measuring and evaluation of bank performance, asset and liability management of banks management of the bank's investment and lending functions.

### Module 1: Financial Statements of Banks.

Balance sheet: Asset items, liability items, off-balance sheet items, problem of book value accounting. Income statement: Revenues and expenses. Measuring and evaluating the performance of banks: Stock values and profitability ratios, Measuring credit, liquidity and other risks, measuring operating efficiency. Fee income: Investment banking services, mutual funds and other investment products, insurance products, product line diversification, economies of scope and scale, information and customer privacy.

### Module 2: Interest Rate Risk and Lending Policies and Procedures

Management of interest rate risk: Asset, liability and funds management, market rates and interest rate risk, interest rates hedging, interest-sensitive gap management, duration gap management, limitations of interest rate management. Lending policies and procedures: Types of loans, factors affecting mix of loans, steps in the lending process, review and workout.

### Module 3: Solvency Risk and Investment Management

Management of solvency risk (hedging): Use of derivatives, financial futures, short and long hedges, interest rate options, and interest rate swaps. Management of

Investment Management: Nature and functions of investments, measuring expected returns, liquidity, prepayment and other risks, investment maturity strategies, and maturity management tools.

### Module 4: Liquidity, Liquidity Risk and Sources of Funds.

Liquidity and reserves management: Sources of demand and supply of liquidity, liquidity management strategies, estimating liquidity needs, the impact of market discipline, reserve and money management. Liquidity risk (Asset-backed securities): Securitization – process, impact and risks, loan sales, standby Credit, credit derivatives.

### Module 5: Sources of Funds and Management of Capital

Deposits: Types of accounts, costs, pricing, conditional pricing, deposit insurance. Non-deposit liabilities: Liability management, customer relationship doctrine, alternative non-deposit fund sources, measuring the funds gap, choosing among different fund sources, and overall cost of funds. Management of capital: Role of capital, capital and risk exposure, types of capital in use, the regulatory significance of capital, Basel I and II, planning to meet the capital needs

### Suggested Reading:

1. Peter S. Rose and Sylvia C. Hudgins, Bank Management & Financial Services, 9/e, MGH
2. Gup, Benton E. and Kolari, James W., Commercial Banking: The Management of Risk, John Wiley & Sons (Asia).(2005)
3. Koch, W. T and MacDonald, Scott S. Bank Management, 5th Edition. Dryden Press.
4. Srivastava, P.K., Banking Theory and Practice, Himalaya Publishing House.(1994)Other
5. Padmalatha Suresh and Justin Paul, Management of Banking and Financial Services, Pearson
6. Meera Sharma Management of Financial Institutions with Emphasis on Bank and Risk Management, Prentice Hall of India

## **FM010: FINANCIAL MODELING USING SPREADSHEETS (Credits 3)**

### **Objective:**

Spreadsheets are used widely in finance. It is a powerful tool for a manager which (s)he will have to develop as one of her/his core skills. Skills in MS Excel, which is the most widely used spreadsheet software worldwide, is something which will help managers to create models on the fly to make informed decisions. This course looks at this tool from a finance manager's view.

### **Module 1: Excel Skills for Financial Modeling**

Work with financial functions: analyze loans and investments – amortization schedule - interest and principal payments- interpolate and extrapolate – depreciation schedule - trace a formula errors - one-variable data table - two-variable data - Scenario Manager - Solver to calculate optimal solutions. -Defined names for cells and ranges - validation rules – spreadsheet best practices

### **Module 2: Basic Financial Calculations**

Present Value and Net Present Value - Internal Rate of Return and Loan Tables - Multiple Internal Rates of Return - Future Values and Applications – Continuous Compounding - Discounting Using Dated Cash Flows – Pension and Annuity

### **Module 3: Calculating the Cost of Capital**

The Gordon Dividend Model - Capital Asset Pricing Model to Determine the Cost of Equity ( $r_E$ ) - Using the Security Market Line to Calculate Cost of Equity - Three Approaches to Computing the Expected Return on the Market  $E(r_M)$  - Calculating the Cost of Debt - Computing the WACC - When the Models Don't Work

### **Module 4: Financial Statement Analysis and Modeling**

Recasting Financial Statements – Making Accounting Adjustments – Asset Distortions – Liability Distortions – Ratio Analysis – Decomposing Profitability – Traditional Approach – Alternative Approach - Cash Flow Analysis - How Financial Models Work: Theory and an Initial Example - Free Cash Flow: Measuring the Cash Produced by the Business - Using the Free Cash Flow to Value the Firm and Its Equity – Detailed Forecasts- Terminal Values - Equity Value - Sensitivity Analysis – Simulation

### **Module 5: Portfolio Basics**

Portfolio Models: Overview of Portfolio Models – Computing Returns – Portfolio Means and Variances – Efficient Portfolios Showing Inefficient Portfolios – Calculating Efficient Frontier – Finding the Market Portfolio - Calculating Variance Covariance Matrix

### **References:**

1. Simon Benninga, Financial Modeling, MIT Press (2008) (SB).
2. June Jamrich Parsons, Dan Oja, Patrick Carey, Carol A. DesJardins, New Perspectives Microsoft® Office – 365™ & Excel 365 , Comprehensive, Cengage Learning (2017)
3. Krishna G. Palepu\_ Paul M. Healy - Business Analysis and Valuation\_ Using Financial Statements, Text and Cases-South Western Educational Publishing (2012)
4. Debra Gross, Frank Akaiwa, Karleen Nordquist, Succeeding in Business with Microsoft Excel 2013 A Problem Solving Approach, Cengage Learning 2014
5. Aswath Dhamodaran's Investment Valuation Tools and Techniques for Determining the Value of Any Asset, Wiley (2012)

### **Course Prerequisite**

Grade B or above in the Microsoft Excel Certification or a Microsoft Certified Specialist badge.

## FM 012 BASIC ECONOMETRICS FOR MANAGERS (Credits 3)

### Course Objectives:

The course provides a comprehensive introduction to basic econometric concepts, methods and techniques. This course also acquaints students with basic knowledge in estimation, inference, and diagnostic using simple and multiple regression models. Additionally this course provides basic introduction to data structure and regression analysis using statistical software.

### Module 1

Introduction to Econometrics: Uses and methodology of econometrics. Introduction to data structure: Cross Section, Time Series and Panel data. Introduction to regression analysis and inference: The Classical Linear Regression Model. Statistical properties and assumptions of OLS. Estimation and Inference in Two-Variable Regression Model with sample data.

### Module 2

Multiple regression models. The meaning of partial regression coefficients. Hypothesis testing in multiple regression. Estimation and Inference in the Multiple Regression Models. Functional forms of regression. Further extensions of OLS estimation: Dummy variable regression model, Outliers and sample selection.

### Module 3

Violations of classical assumptions and remedies: Multicollinearity, autocorrelation, and heteroscedasticity; tests and solutions, Specification analysis, Omission of relevant variable, Inclusion of irrelevant variable, Proxy variables, Test of specification errors.

### Module 4

Time series econometrics: autocorrelation, stationarity and consistency of the estimates, difference equations and the lag operator, Unit Roots and Stationarity. ARMA modeling, Autocorrelation Function (ACF), Partial Autocorrelation Function (PACF), Unit Root Tests: Augmented Dickey Fuller, Phillips-Perron test. Nonstationarity: Spurious Regression, Cointegration.

### Module 5

Panel data regression models: Fixed effects and Random effects model. Binary choice and limited dependent variable regression models: Linear Probability Model, Logit and Probit models, Tobit model.

### References:

1. Wooldridge J. M. Introductory Econometrics: A Modern Approach, Cengage Learning Custom Publishing, 6th edition, 2015.
2. Christopher Dougherty, Introduction to Econometrics, Oxford University Press, 4th edition (Indian edition) 2011.
3. Gujarati, D. N., Dawn C. Porter and Sangeetha Gunasekar, Basic Econometrics, Mcgraw Hill Education, 5th Edition, 2011.
4. James, H Stock and Mark, W. Watson, Introduction to Econometrics, Pearson, 3rd Editon, 2017
5. Cameron, C.A. and Trivedi, P.K. Microeconometrics Using STATA, STATA Press, 2nd Edition, 2010.
6. Enders, Walter. Applied Econometric Time Series, 2nd ed., Wiley & Sons (Asia), 2013

This course is recommended to be cross-listed for students specializing in Finance or Business Analytics.

## **FM001 SECURITY ANALYSIS & PORTFOLIO MANAGEMENT (Credits 3)**

### **Objective**

The focus of Security Analysis is on how others analyze your company's securities on their own. Whereas, that of Portfolio Management is on how investors analyze your company's securities in comparison with others' on the security market.

### **Module 1**

Concept of Investment; Investment Instruments Introduction to the financial system Financial Markets- Primary and Secondary Market Stock Exchanges – clearing and settlement process; Margin money, types of margins. Depository System, Indices, SEBI and Regulations.

### **Module 2**

Investment Alternatives Risk –Return Analysis; Systematic and Unsystematic Risk Bond Valuation – YTC/YTM/Bond duration and convexity. Bond Returns &Prices; Bond Rating.

### **Module 3**

Share Valuation; Share Valuation Models Cash Flow Valuation Models-Earnings Valuation Models Fundamental Analysis-E.I.C.

### **Module 4**

Technical Analysis Chart patterns/Moving Average/RSI/MACD Efficient Market Hypothesis

### **Module 5**

Portfolio Management Portfolio Analysis, Portfolio Selection Markowitz Model, Sharpe Model CAPM Portfolio Revision &Portfolio Evaluation.

### **Suggested Reading:**

1. Bodie Zvi, Kane Alex, Marcus J, Allan and Pitabas Mohanty, Investments, 8th Edition, Tata McGraw-Hill, 2009.
2. Donald E. Fischer and Ronald J. Jordan, Security Analysis and Portfolio Management, 6th Edition, by Prentice-Hall, 2004.
3. Reilly, Frank K. and Edgar A. Norton., Investments, Seventh Edition
4. Benjamin Graham, Security Analysis: Sixth Edition, McGraw Hill education
5. Edwin J. Elton, Martin J. Gruber, Stephen J. Brown, William N. Goetzmann, Modern Portfolio Theory And Investment Analysis, Wiley

## **FM013 MICROFINANCE (Credits 3)**

### **Objective:**

The objective of the course is to understand the mechanism of microfinance and the various microfinance models.

### **Module-1**

An Introduction to Microfinance, Microfinance Debates, Objectives and Impact of Microfinance, Approaches in Microfinance Delivery, Role of technology in distributing MFI products, Microfinance Institutions in India.

### **Module-2**

Types of MFIs in India, Funding structure of MFIs, Role of development banks, venture capital, private equity and government in funding MFIs, Pricing of loan; Operating cost measurements, Cost of funds and Margin, Cost of loan to MFI customers.

### **Module-3**

Microfinance financial Products and other products, Understanding of Credit risk, Probability of default; Pricing using probability of default; Lending rates based upon credit risk; Expected loss

### **Module-4**

Microfinance Business Models, MFI Lending Models and Loan products, MFI group lending models, MFI individual lending models, MFI loan products and related issues, Business structure of MFI customers.

### **Module-5**

Interest rate, Use of Base rate and MPLR, Calculation of interest rates, Performance Analysis of MFIs using metrics, MFI Ratings, Strategic Issues in the Growth of MFIs.

### **Suggested Reading:**

1. Joanna Ledgerwood, Microfinance Handbook an institutional and financial perspective: sustainable banking with the poor, World Bank Publications 2001
2. Beatriz Armendariz & Jonathan Morduch, The economics of Microfinance, MIT Press, 2007
3. K G Karmakar, Microfinance in India, Sage Publications, 2008
4. Silverman Siegfried, Microfinance, Createspace Independent Publishing Platform
5. Samuel Wahlen, Microfinance, Archway Publishing

## **FM009 PROJECT FINANCE & CAPITAL BUDGETING (Credits 3)**

### **Objectives**

In this course, students learn the types of capital investments for which project financing is suitable and how to engineer the financing arrangements that support it. Because of project financing's enormous practical value, it would be wise for finance students to learn about it so they can include it in their financing skill set.

### **Module 1 Introduction, Rationale and Structuring a Project**

Introduction to Project Finance: - Project Sponsors and SPV– Types of Project Sponsors – Project Finance and Network of Contracts. Theory of Project Finance Rationale: - Advantages of Separate incorporation - Underinvestment Problem - Reallocating Free Cash Flow - Asymmetric Information and Signaling - Advantages and Disadvantages of Project Financing. Financing Structuring: - Types of SPVs

### **Module 2: Project's Valuation and Appraisal**

Project Valuation: – Conflict between Capital Budgeting Techniques - Discounted Cash Flow Analysis - Project Cash Flows Cash Available for Debt Service - Equity Cash Flows - Quasi Market Valuation. Project Appraisal: - Risk Analysis of Single Investments - Sensitivity Analysis - Scenario Analysis - Break Even Analysis - Monte Carlo Simulation.

### **Module-3 Decision Tree Analysis, Project Viability, and Managing Project Risks**

Decision Tree Analysis - Options Embedded in Projects - Difference between Financial Options and Real Options - Option to Delay a Project - Option to Expand a Project - Option to Abandon a Project – Mistakes made in Real Options Valuation – Managing Real Options. Analyzing Project Viability: Technical Feasibility - Economic Viability – Creditworthiness. Risk Analysis:- Types of Risks in Project Financing. Managing Project Risk-: Use of Insurance Derivatives.

### **Module 4: and Project Financing Plan**

Project Financing Plan:- Pre-commitments Timing of Drawdowns Expected Cash Flow Profile Currency Profile of Project Revenue and Costs - Syndication Refinancing - International Financial Institutions - Multilateral Banks - Bilateral Agencies- Developmental Banks - Export Credit Agencies - Other Financial Intermediaries Borrowing Capacity With and Without Drawdowns Funding Options.

### **Module 5: Social and Governmental aspects**

Issues for host government:- Contribution to Host's Economic Development - Investment Incentives Given - Tax Revenues - Project Participation - Monetary Impact - Host Govt. Exposure to Project Debt - Public Private Partnerships - Types of PPP. Cost Benefit Analysis (CBA): Definitions - Appraisal Steps - Financial to Economic Analysis - Fiscal Corrections - Shadow Prices - Social Discount Rate - Economic Rate of Return.

### **Suggested Reading:**

1. Dr. John D. Finnerty Asset-Based Financial Engineering Second Edition John Wiley Sons
2. Dr. Prasanna Chandra – Project Planning, Analysis, Financing, Implementation and Review, Tata McGraw Hill, 7th edition.
3. Narendra Singh – Project Management, Himalaya Publishing House, 1999
4. Stefano Gatti - Project Finance in Theory and Practise, Academic press, 2nd edition.
5. P.K. Das, PPP and Project Finance, Development and Use of Financial Models
6. Haldea, G, Infrastructure at Cross Roads: The Challenges of Governance
7. Esty, B.C., Modern Project Finance A Casebook
8. European Union Guide to Cost-Benefit Analysis of Investment Projects

## **FM013: PORTFOLIO MODELING USING SPREADSHEETS (Credits 3)**

### **Objective:**

Spreadsheets are used widely in finance. It is a powerful tool for a manager which (s)he will have to develop as one of her/his core skills. Skills in MS Excel, which is the most widely used spreadsheet software worldwide, is something which helps project future returns and assess risk through security analysis typically conducted with an eye toward identifying mispriced securities in the hopes of generating returns that more than compensate the investor for risk. This course looks at spreadsheets from an Investment Analyst's view.

### **Module 1: Excel Skills for Portfolio Modeling**

Matrices and Spreadsheets – Excel Matrix Functions – TRANSPOSE – MMULT- MINVERSE- Simultaneous equations – Use of Array Functions – Homemade Array Functions

### **Module 2: Portfolio Model Basics**

Overview of Portfolio Models – Computing Returns – Portfolio Means and Variances – Efficient Portfolios – Showing Inefficient Portfolios – Calculating Efficient Frontier – Finding the Market Portfolio – Calculating Variance Covariance Matrix

### **Module 3: Estimating Betas and Security Market Line**

Overview – Testing Security Market Line – Inefficiency of Market Portfolio – Real Market Portfolio – Using Excess Returns

### **Module 4: Efficient Portfolios without Short Sales**

Overview and example – Unconstrained Portfolio Problem – Constrained Portfolio Problem – Efficient Frontier with Short Sale Restrictions – Other Position Restrictions.

### **Module 5: The Black-Litterman Approach to Portfolio Optimization**

Problems of Modern Portfolio Theory – Why MPT fail – Changing Variance-Covariance Matrix – Black and Litterman's Solution to the Optimization Problem – Black-Litterman on an International Portfolio

### **References:**

1. Simon Benninga, Financial Modeling, MIT Press (2008) (SB).
2. Ellen F. Monk, Joseph A. Brady, Gerard S. Cook, Problem Solving Cases in Microsoft® Access™ and Excel ® Cengage Learning 2012
3. Wayne L. Winston - Analytics Stories Using Data to Make Good Things Happen, Wiley (2021)
4. Frank K. Reilly, Keith C. Brown - Investment Analysis and Portfolio Management-Cengage Learning (2011)
5. Pignataro P - Financial Modeling and Valuation A Practical Guide To Investment Banking And Private Equity 2Ed, John Wiley (2022)

### **Course Prerequisites**

1. Grade B or above in the Microsoft Excel Certification or a Microsoft Certified Specialist badge.
2. Elective: Financial Modeling using Spreadsheets (FM10)



## **FM005 FINANCIAL DERIVATIVES & RISK MANAGEMENT (Credits 3)**

### **Objective:**

The objective is to explain the basics of derivative instruments and their applications in the real world scenario

### **Module 1**

Introduction- Derivatives Markets Types of derivatives - Forwards, Futures, Options, Swaps Uses of Derivatives – Derivatives and risk management Role of Derivatives Markets, Participants in Derivatives market Price convergence of futures and cash market

### **Module 2**

Forward and Futures- Market Structure Types of Future Contracts, Stock futures and stock index futures Specification of a futures contract Forward vs futures contracts Futures pricing – Cost of carry model Hedging Strategies using futures

### **Module 3**

Options- Types of options, Option positions Specification of stock options Options markets, Properties of an option contract – Option boundaries, put-call parity;

### **Module 4**

Options pricing- Binomial pricing and Black Scholes Option pricing Introduction to Option Greeks; Option Trading Strategies – Basic Rules – Straddles – Straps – Strips - Strangles

### **Module 5**

Swaps – Currency swaps and interest rate swaps – using swaps for speculation and for economic advantage; Credit derivatives - CDO and CDS

### **Reference books**

1. John C. Hull. (2007). Options, Futures and other Derivatives, 6th ed. New Delhi : Prentice Hall of India
2. Robert A. Strong. (2006). Derivatives : An Introduction, Thomson South Western
3. S.S.S. Kumar (2007). Financial Derivatives, New Delhi : Prentice Hall of India
4. Chisholm, A. M. (2011). Derivatives demystified: a step-by-step guide to forwards, futures, swaps and options. John Wiley & Sons.
5. Boyle, P. P., & Boyle, F. (2001). Derivatives: the tools that changed finance (Vol. 10). London: Risk Books.

## **FM011 STRATEGIC FINANCIAL MANAGEMENT (Credits 3)**

### **Objective**

The financial strategies of corporations are very complex in nature. The industry characteristics within which a company operates play a key role in determining its assets and cost structure. The financial strategy of a company that raises funds from the market is influenced by investor demand and market conditions. Companies continuously transform themselves to meet emerging challenges and financial policies, which are important vehicles to communicate and execute some of these initiatives. The complexity and economies of large projects pose a challenge in developing risk mitigation strategies. Corporate financial policies are continuously shaped by interactions of many of these forces. The Strategic Financial Management course deals with these complex situations and makes to understand in a comprehensive manner how finance managers contribute to effective decision-making and what strategies lead to the enhancement of a firm's value and reduction of risk. This course also aims at integrating corporate financial decisions, corporate strategy and financial markets.

### **Module 1: Corporate Strategy and Financial Policy**

Interdependency of Financial Goals and Policies – Constraints on Financial Goals – Sustainable Growth and Modern Financial Theory - Financial Goals and Strategic Consequences – Choice between Growth and Return on Invested Capital

### **Module 2: Financial Strategies**

Cost of Capital – Divisional Cost of Capital – Basic Equation – Objective Risk – Subjective Risk – Risk Index - Measuring Assets Employed – ROI versus EVA – EVA and MVA – How is EVA used. – Firm Valuation – Cash Flow Return on Investment - The Adjusted Present Value Approach – Effect of Leverage on Firm Value – APV and Financial Leverage

### **Module 3: Investments in Risky Projects and Real Options**

Investment Opportunities as Real Options – Mapping a Project Onto an Option – Linking NPV and Option Value – NPVq – Valuing the Option – Seven Steps Framework – Option to Delay a Project – Option to Expand – Option to Abandon

### **Module 4: Corporate Strategies, Capital Structure Choices and Liability Management Policy**

The Capital Structure Puzzle - Managerial and Neutral Mutation Hypotheses - The Static Tradeoff Hypothesis - Internal vs. external equity - Timing of security issues - Borrowing against intangibles and growth opportunities - Exchange offer - Issue or repurchase of shares - Existence of target ratios – Capital Structure's Long Term Impact – A Practical Framework for Developing Capital Structure

### **Module 5: Corporate Strategies, Dividend decisions, Cost of Financial Distress, Information Asymmetry and Conflict of Interest.**

Why Companies Pay Dividends – Why Companies Repurchase Shares – Cash Distribution versus Common Stock Repurchases - Setting the Right Mix - Financial Distress – Debt Holder Equity Holder Conflicts – Conflicts between Different Classes of Creditors

### **References:**

1. Principles of Corporate Finance by Richard A Brealey, Stewart C Myers and Franklin Allen, 9th Edition, McGraw Hill (hereafter referred as BMA)
2. Financial Markets and Corporate Strategy by Mark Grinblatt & Sheridan Titman, 2nd Edition, Tata McGraw Hill, 2003
3. Investment Valuation Tools and Techniques by Aswath Damodaran Third Edition, Wiley
4. Management Control Systems by Robert Anthony, Vijay Govindrajana, McGraw Hill
5. Jonathan B Berk, Peter M DeMarzo - Corporate Finance, Pearson (2017)

## **FM006 INTERNATIONAL FINANCE (Credits 3)**

### **Objective:**

The objective of the course is to provide an understanding of both the key features of foreign exchange markets and the actual problems of Multinational Corporation within an environment of free flows of foreign capital and floating exchange rates

### **Module-1**

Introduction and Unique dimensions of International Finance- importance, benefits. Introduction to Exchange Rates- Direct quotes, Indirect Quotes, American Term, European Term. Direct Vs Indirect Exchanges and Cross Exchange Rates, Rupee Appreciation and Depreciation Bid & Ask Rates, Two Way Quotes, Spread, Converting Two-way quotes, Cross Rates Foreign Bank Note Market, Spot Foreign exchange Market

### **Module-2**

Forward Foreign Exchange, Spot rate, forward rate, Forward Exchange premium and discounts, Forward rates versus expected future spot rates, Currency Futures, Currency Options Forwards, Futures and options Compared

### **Module-3**

Foreign Exchange Risk and Exposure- Understanding, nature of Risks, Transaction Risks and Translation Risks. Operations Affected by Exchange Rates- Importer and Exporter Alternative Hedging Techniques- Leading, lagging, Cross-hedging, Currency diversification Application of Forwards, Futures, options and SWAPS; Risk exposure management

### **Module-4**

Purchasing Power Parity Principle- Law of one price, Absolute (static) form of PPP condition, Relative(or dynamic) form of PPP, Empirical evidence on PPP, Statistical problems for evaluating PPP, Practical Importance of PPP, Interest rate Parity Theory- Investment and borrowing Criteria, covered interest-parity condition, Combining PPP and interest parity, analyzing why covered interest differences persists- practical case studies

### **Module-5**

International Portfolio Investments- International correlation structure and Risk Diversification; Optimal International portfolio selection. International Capital Budgeting- estimating cash flows and project evaluation-subsidiary parent perspective, factors to consider in multi-national capital budgeting.

### **Suggested Reading:**

1. International Financial Management 9th Edition By Cheol Eun and Bruce Resnick and Tuugi Chuluun
2. Eiteman, D. K., Stonehill, A. I., Moffeit, M. H.: Multinational Business Finance, 8th Edition, Addison Wesley, 1999
3. Shapiro A. C.: Multinational Financial Management, 6th Edition, Prentice Hall, 19993.
4. P G Apte, International Financial Management, 5th Edition, Tata McGraw Hill Publishing Company
5. Jeff Madura, International Financial Management, Cengage Learning

## **INTEGRATED REPORTING (3 credits)**

Integrated Reporting, or <IR>, is the latest way the corporates are reporting about the value propositions to various stakeholders. IR focuses on disseminating information related to strategy, business model, governance, performance, and future prospects in the context of its external environment. This includes reporting on value creation over the short, medium, and long term.

### **Objectives of The Course**

Students should be able to understand the fundamental concepts of value creation, the capitals, and the value creation process, identify the requirements of the International <IR> framework and describe the factors which contribute to the successful implementation of Integrated Reporting, including integrated thinking, within an organisation.

### **Module 1 Introduction**

Definition of Integrated Reporting, Integrated thinking, Objectives of Integrated Reporting Framework, Purpose and users of an integrated report, formats of integrated reports, application of the framework, the responsibility of integrated reporting

### **Module 2 Concepts of Integrated Reporting & Six Capitals**

Value creation for organisation, stakeholders and society, categories and description of capital – Financial Capital, Manufactured capital, Intellectual capital, Human capital, Social and relationship capital, Natural capital

### **Module 3 Guiding Principles of Integrated Reporting**

Strategic focus and future orientation, Connectivity of information, Stakeholder relationships, Materiality, Conciseness, Reliability and completeness, Consistency and comparability

### **Module 4 Content Elements of Integrated Reporting**

Organizational overview and external environment, Governance, Business model, Risks and opportunities, Strategy and resource allocation, Performance, Outlook, Basis of preparation and presentation, General reporting guidance

### **Module 5 Practical Study of Integrated Reports**

Challenges and benefits of Integrated reporting, Adoption of Integrated reporting in India, Study of Integrated Reports of Foreign and Indian corporates

### **References**

1. 2019, Integrated Reporting - Antecedents and Perspectives for Organizations and Stakeholders 1st edition, Samuel O. Idowu, Mara Del Baldo, Springer International Publishing
2. The International Integrated Reporting Council (IIRC) RESOURCES
  - a. THE INTERNATIONAL <IR> FRAMEWORK,
  - b. IIRC Practice Aid: Summary of International Framework Requirements,
3. Charl Villiers, Pei-Chi Hsiao, Warren Maroun, The Routledge Handbook of Integrated Reporting, 1st Edition, 2020, Routledge
4. Robert G. Eccles, Michael P. Krzuz, The Integrated Reporting Movement: Meaning, Momentum, Motives, and Materiality, 2015, Wiley
5. Carol Adams, Understanding Integrated Reporting: The Concise Guide to Integrated Thinking and the Future of Corporate Reporting, 1st edition, 2015, Routledge

# OPERATIONS SPECIALIZATION

## OM005 SERVICE OPERATIONS MANAGEMENT (3 credits)

### Course Objective:

Manufacturing management principles cannot be applied to services without recognition of the different operating environments and the uniqueness of service delivery systems. The intent of the course is to provide an understanding of the role of the services and the unique challenges faced by service operations managers as well as equipping the participant to design service enterprises and manage service operations.

### Module 1

Understanding the Nature of Services: The role of services in an economy, Distinctive characteristics of service operations, classifying services for strategic insights

### Module 2

Understanding the challenges for operations managers: Developing and using the service concept, Service strategy –The strategic service vision-Competitive service strategies- Winning customers in the market place

### Module 3

Designing the service enterprise: New service development, Delivering services on web, Service facility design and layout, Supporting facility, Service facility location

### Module 4

Managing Service Operations: Service encounter, Managing capacity and demand, managing waiting lines, Service supply relationships, managing facilitating goods

### Module 5

Driving continuous improvement in services: Service Quality, Dimensions of Service Quality, Reinforcing Service Quality through Service Recovery and Service Guarantee

### References / Books

1. Fitzsimmons, J., & Fitzsimmons, M. (2013). Service management: Operations, strategy, information technology. McGraw-Hill Higher Education.
2. Johnston, R., & Clark, G. (2019). Service operations management: improving service delivery. Pearson Education
3. Cengiz Haksever , Barry Render . Service And Operations Management ,World Scientific
4. Robert Johnston, Michael Shulver, Nigel Slack, Graham Clark, Service Operations Management: Improving Service Delivery, Pearson; 5th edition
5. Jauhari , Dutta, Services: Marketing, Operations and Management , Oxford University Press

## OM010 GAME THEORY FOR MANAGERS (3 credits)

### Course Objective

The objective of the course is to introduce the main idea and techniques of game-theoretic analysis related to different aspects of business operations like procurement, negotiations, and another decision-making context. The course basically emphasizes the understanding of Nash equilibrium, Repetitive and non-repetitive decision-making scenarios. The major focus is on understanding the different decision-making scenarios in operations and production systems.

### Module I:

Introduction to Game Theory, Applications and Examples – Self Interested Agents & Utility Theory. Game Theory: Normal Form, Payoffs, Strategies. Prisoner's Dilemma, Nash Equilibrium, Dominant Strategies. Pareto Optimality.

### Module II:

Pure Strategy Nash Equilibrium - Mixed Strategy Nash Equilibrium. Alternate Solution Concepts beyond Nash Equilibrium: Iterative Removal of Strictly Dominated Strategies, Minimax Strategy, Minimax Theorem for Zero-Sum Games.

### Module III:

Extensive Form Games: Perfect Information Games, Centipede Game, Backward Induction. Subgame Perfect Equilibrium.

### Module IV:

Introduction to Imperfect Information Games, Mixed Strategies and Behavioural Strategies.

### Module V:

Repeated Games: Finite & Infinite Repeated Games - Repeated Prisoner's Dilemma & Battle of the Sexes. Equilibria of Infinitely Repeated Games.

### References (Books):

1. Fudenberg, D., & Tirole, J. (1991). Game Theory. Cambridge, MA: MIT Press. ISBN: 9780262061414.\*
2. Osborne, M. J., & Rubinstein, A. (1994). A course in game theory. MIT Press. ISBN: 9780262650403.
3. Tadelis, S. (2013). Game theory: an introduction. Princeton University Press. 9780691129082.
4. Michael Maschler, Eilon Solan, Shmuel Zamir, Game Theory, Cambridge University Press; 2nd edition
5. Ivan Pastine, Tuvana Pastine), Tom Humberstone, Introducing Game Theory: A Graphic Guide , Icon Book

## OM014 STRATEGIC OPERATIONS MANAGEMENT (3 credits)

### Course Objective

This course will focus on the core tools of operations management not only from a strategic perspective and also from the perspectives of digitalization, innovation and sustainability. Sourcing, accruing and developing operations capabilities that other organizations cannot copy is definitely a robust way to sustain competitive advantage. This course is expected to facilitate the development of such an approach among the students.

### Module 1:

Introduction & Managing the Transformation Process Introduction to Strategic Operations Management, Factors within the input/output model of operations, Operations management and added value, Strategic importance of layout and process, the hybrid layouts, Leveraging technology for competitive advantage. The emergence of Servitization.

### Module 2:

Human Resources & Strategic Operations Management Human resources as an integral feature of strategic operations, Human resource know-how and inventiveness, organizational and cultural rigidities which hamper operations, working with robots and Cobots, Managing freelancer resources.

### Module 3:

Doing it better – Managing and improving quality Understanding quality from a strategic perspective. Developing quality as a sustainable competitive advantage. Manufacturing systems and processes for continuous improvement in quality. How models such as product design, customer focus, lean manufacturing, Six Sigma, Strategic Quality Management (SQM), and Lean Six Sigma metrics for measuring performance, the ISO 9000 family of standards are used to improve business results.

### Module 4:

Capacity & Scheduling Management Contemporary techniques for capacity & scheduling management, Digital factory, Robotic Process automation of back office operations, using operations capability in strategy formulation, Need for strategic resonance. principles of postponement in design, processes and logistics, mass customization, global location factors for offices, plants and distribution centers, collaborative planning, forecasting and replenishment (CPFR) systems, Intelligent Manufacturing Systems (IMS)

### Module 5: Sustainability

Legislative; market and industry drivers of sustainability and derived business objectives, Identification of the place of impact in the value chain, tools and techniques needed to quantify environmental impact in supply chains such as life cycle assessment and carbon foot printing, design for the environment, recycling and re-manufacturing, energy efficiency, energy efficiency, eco-certification, responsible sourcing and managing supply of renewable resources

### Reference Books

1. Strategic Operations Management: By Steve Brown, John Bessant, Fu Jia 4th Edition
2. Slack N, Brandon-Jones A, and Johnston R (2013). Operations Management
3. The AI Advantage: How to Put the Artificial Intelligence Revolution to Work (Management on the Cutting Edge) 1st Edition, by Thomas H. Davenport (Author) 4. Digital Factory for Human-oriented Production Systems: The Integration of International Research Projects by Luca Canetta (Editor), Claudia Redaelli (Editor), Myrna Flores (Editor)
4. Dr Arun Sahay , Dr Veenu Sharma, Cases in Operations and Strategic Management, Bloomsbury India

## Supply Chain Analytics (3 credits)

### Course objective

The course deals with the analytical side of supply chain management and covers the tools and techniques to support the decision-making areas in SCM. To understand the importance of the basics of Supply Chain Analytics and Optimization. To analyze the level of uncertainty associated with the supply of products and the role of descriptive, prescriptive, and predictive Analytics in a Supply Chain. The emphasis will be on how these models can be used in some fundamental supply chain applications.

### Module 1

Overview of Supply Chain Management, Analytics in Warehousing and Location of Facilities- Considerations in Location Modelling, Basic Methods like COG, MCOG, Discrete Location Modelling and Mathematical Programming Models, Guided LP Approach, Balmer-Wolfe Method, Greedy Drop Heuristics, Space Determination, Layout Configurations, Space Allocations and Layout Decisions, Dynamic Location Models

### Module 2

Review of Basic inventory models, Inventory Aggregation Models ( Complete and Tailored), Inventory under Probabilistic Environment and Stochastic Inventory Systems, Aggregate Inventory system and use of LIMIT (LOT SIZING INVENTORY MANAGEMENT INTERPOLATION TECHNIQUE), Use of Lagrangian Multipliers in Inventory Decisions, Joint Replenishment Models in Inventory Decisions, Dynamic Lot sizing Models, Multi-Echelon Inventory models.

### Module 3

Transportation Decisions and Network Analysis, Tradeoffs in transportation decisions, Network Models- Notion of Graphs, Minimal Spanning Tree, Shortest Path Algorithms -Labelling, Dijkstra, Floyd, Maximal Flow Problems.

### Module 4

Multistage Transshipment and Transportation Problems, Set covering and Set Partitioning Problems, Traveling Salesman Algorithms, Advanced Vehicle Routing Problems and Heuristics Scheduling Algorithms-Deficit function Approach and Linking Algorithms.

### Module 5

Multicriteria Decision Making covering - AHP, TOPSIS, Fuzzy AHP, Fuzzy TOPSIS in the context of supply chain.

### Reference Books

1. Supply Chain Analytics by T.A.S. Vijayaraghavan, Wiley India Ltd.
2. Supply Chain Analytics and Modelling: Quantitative Tools and Applications 1st Edition by Dr Nicoleta Tipi ,Kogan Page publication
3. Supply Chain Planning and Analytics: The Right Product in the Right Place at the Right Time 2011, By Gerald Feigin
4. Inventory Optimization: Models and Simulations 1st Edition,By Nicolas Vandepuut
5. Towards Supply Chain Risk Analytics: Fundamentals, Simulation, Optimization, Iris Heckman, 1st ed. 2016 Edition, springer,



## OM004 SUPPLY CHAIN MANAGEMENT (Credits 3)

### Objective:

The objective is to give students a managerial knowledge of basic concepts and principles. The strategic importance of a good supply chain design, planning and operation for every firm is covered in the syllabus. The role of inventory management, transportation, Warehousing, purchasing and integration in managing an effective supply chain is dealt in detail.

### Module 1

**Supply chain and its link with business strategy,** Achieving strategic fit between a company's supply chain and competitive strategy, Major drivers of supply chain performance

### Module 2

**Designing the distribution network,** The factors affecting the distribution network design, The trade-offs involved in designing a network, Designing network for online and omni-channel retailing, The role of network design in supply chain.

### Module 3

**Demand planning and coordination in supply chain,** Demand forecasting in a supply chain, Supply chain co-ordination and bullwhip affect; the impact on supply chain performance, Managerial levers to improve coordination.

### Module 4

**Inventory Management in supply chain,** Role of cycle inventory, Role of safety inventory, Managerial levers for lowering safety inventory without affecting product availability

### Module 5

**Sourcing, Sustainability and Information Technology,** Factors that affect the decision to outsource a supply chain function, Sustainability in Supply chain , The future of Information Technology in the supply chain

### References

1. Chopra, S. & Kalra, D.V.(2019), *Supply Chain Management – Strategy, planning and Operation* (7<sup>th</sup> ed.), Pearson.
2. Sahay, B.S. & Mohan, Ramneesh (2007) , *Indian Supply Chain Architecture*, Macmillan.
3. Zhang, Q (2007), *E-supply chain technologies and management*, Information Science Reference.
4. Bowersox, D.J. & Closs, D.J. (2017), *Logistical Management*, McGrawHill.
5. David Simchi-Levi, Philip Kaminsky , Edith Simchi-Levi , Ravi Shankar , *Designing & Managing the Supply Chain*, McGraw Hill Education

## OM016 REVENUE MANAGEMENT (3 credits)

### **Course Objective**

Revenue management course views Operational decision making using economic fundamentals of customer price response and market segmentation. The course aims to train the students on decision making at operational and firm level to manage operational capacity, resources and product availability policies across different selling channels in order to maximize performance and profitability.

### **Module 1: Introduction:**

History of Pricing and Revenue Optimization (PRO) . The PRO process. Customer commitments. The role of segmentation. Impact of segmentation on pricing. Establishing "fences". Limits to segmentation. Segmenting by product definition. "Inferior" products. Effects of cannibalization. Effects of real and potential arbitrage.

### **Module 2: Pricing Theory & Pricing Analysis:**

Review of Pricing Theory. Monopoly Pricing. Producer and Consumer surplus. Types of price discrimination (first-degree, second-degree, and third degree). Two part tariffs and quantity discounts. Bundling. Pricing Analysis. Price response functions and willingness-to-pay. Tactical pricing as constrained optimization. Basic pricing optimality conditions. Pricing with a capacity constraint. The calculation and use of opportunity costs.

### **Module 3: The Revenue Management Problem:**

The problem setting. Airline customer segmentation. Booking limits and protection levels. Littlewood's rule. "Critical fractile" method for overbooking. EMSR (Expected Marginal Seat Revenue) heuristics. Booking control mechanisms. Network management problem. Linear programming approach. Bid pricing. Revenue management in hotels, rental cars, freight transportation and other industries.

### **Module 4: Markdown management & Customized pricing**

Markdown Management. Retail markdown management. Retail customer segmentation. Two-period segmentation model. Formulation as a constrained optimization problem. Customized pricing. The customized-pricing problem. Response to RFP and RFQ's. Win-loss curves. Maximizing expected profitability. Basics of logistic regression.

### **Module 5: Dynamic List Pricing & Customer Acceptance:**

Dynamic List Pricing. The problem setting. Retail list pricing. E-commerce pricing. On-line bookseller example. Optimizing list prices. Interaction with replenishment decisions. Customer Acceptance. Customer perceptions of dynamic price differentiation. Implications from prospect theory. Dual entitlement. Price image. Examples from Amazon.com and Coca-Cola. Tactics for avoiding perceptions of unfairness.

### **Reference Books**

1. Pricing and Revenue Optimisation by Robert L. Phillips. Stanford Business Book, 2005.
2. The Theory and Practice of Revenue Management by K. Talluri and G. Van Ryzin. Kluwer Academic Publishers, 2004.
3. Segmentation, Revenue Management and Pricing Analytics Paperback – 10 Mar 2014 by Tudor Bodea , Mark Ferguson
4. Revenue Management and Pricing Analytics by Guillermo Gallego • Huseyin Topaloglu (RMP)
5. Ian Yeoman , Una McMahon , Anthony Ingold , Yield Management: Strategies for the Service Industries 2nd Edition by

## **OM001 PROJECT MANAGEMENT (3 credits)**

### **Course Objective**

This course will cover the frameworks and approaches which will enable the student to perceive and implement projects as a means for successful growth and innovation.

Appreciation of the need for flexibility, continuous resource configuration and establishment of a collaborative network of stakeholders and development of the initial steps of such a capability is the expected outcome of this course.

### **Module 1: Introduction**

The definition of a project, the traditional three project objectives, Adaptive project management, NTCP (Novelty, Technology, Complexity, Pace) approach for adapting to a Project's risk and benefits. Project Life cycle, Project Risk Management. Software and Applications for Project Management (Microsoft Project or any other software).

### **Module 2: Project Initiation**

Strategic Management and Project Selection, The Project Manager, Managing Conflict and the Art of Negotiation, The Project in the Organizational Structure, The work breakdown Structure and linear responsibility charts, Organizational Breakdown Structure (OBS).

### **Module 3: Project Planning & Scheduling**

Activity Planning; Traditional and Agile, Estimating; Costing & Budgeting, Scheduling (PERT/CPM, Critical Chain Project Management), Reducing product duration (Laddering techniques, Project crashing), Resource allocation, Resource Loading and Resource levelling.

### **Module 4: Project Execution**

The planning –monitoring-controlling cycle, Earned Value Analysis, Computerized Project Management Information system, Project control, Control of Change and scope creep.

### **Module 5: Project Closure & Benefit Realization**

Project Auditing, Project Termination, Project Learning. Global Projects. Project Insurance.

### **Reference Books**

1. Jack R. Meredith, Samuel J. Mantel Jr., Scott M. Shafer; Project Management: A Managerial Approach, 10th Edition (2017)
2. Aaron J. Shenhar, Dov Dvir ; Reinventing Project Management ; Harvard Business School Press
3. Erik Larson , Clifford Gray Project Management: The Managerial Process (McGraw- Hill Series Operations and Decision Sciences) 7th Edition(2017)
4. Joseph Heagney, Fundamentals of Project Management, Amacom
5. Kory Kogon (Author), Suzette Blakemore (Author), James Wood (Author), Project Management for the Unofficial Project Manager, BenBella Books

## **PRODUCT DESIGN & DEVELOPMENT (3 credits)**

### **About the course**

Sustainability and growth of firms has a close linkage to their ability to develop major product and service innovations. Recent research into the innovation process has established that it is possible to develop “breakthroughs” and innovations in a systematic fashion. The course covers modern tools and methods for product design and development and the individual assignment will be a project on new product or service design. Class sessions will employ cases and hands- on exercises to reinforce the key ideas. Topics include identifying and testing of concepts to meet customer needs, translating concepts to product architecture, industrial design, and design-for-manufacturing and design for environment. Students are expected to learn and apply the concepts in a concurrent fashion. This is not a silo-based course and marketing and Operations streams will benefit by cross-listing this course.

**Module 1** : Concept Selection & testing, Advantage of using a structured method, Concept screening, concept scoring, concept testing, estimating market sizes.

**Module 2** : Product Architecture Product architecture and types of modularity, implications of the Architecture, Establishing the Architecture, Delayed differentiation, platform planning, system level design issues

**Module 3** Industrial Design and Design for Environment, Assessing the need for Industrial design, The impact of Industrial Design, The industrial design, process, Management of the Industrial design process, The two life cycles and environmental, impacts, DFE guidelines, Assessing the Quality of Industrial design (also from DFE perspective)

**Module 4** Design for Manufacturing & Supply Chain, DFM method, Estimating the manufacturing cost, reducing the cost of components, reducing the cost of assembly, reducing the costs of supporting production, Volume minimization and reducing the costs of logistics, cost structures

**Module 5** Prototyping and Robust Design, Understanding prototypes, Principles of prototyping, Prototyping Technologies, Design of Experiments, The Robust Design process.

### **Readings and References**

SMR Winter 2022 Issue Keri Pearlson, Keman Huang : Design for Cybersecurity From the Start

SMR Spring 2016 Research Highlight Suketu Gandhi and Eric Gervet : Internet of Things and Product Design

SMR winter 2010 Steven D. Eppinger, How Sustainability Fuels Design Innovation

Ulrich ,K.T.; Eppinger S.D.; Yang M.C. Product Design & Development seventh edition

## **EXECUTIVE DECISION MAKING (3 credits)**

### **Course Objectives**

A critical requirement of business managers is effective decision-making. We do not have a course for it and have been running certification programs to afford the requisite learning. It is essential that we introduce a course to give a systematic introduction to decision-making. Cognitive computing is able to assist human decision-makers in a very effective way and a full understanding of the decision-making process is required to effectively utilize such developments.

**Module 1:** Decision Analysis Decision nodes and Event nodes, Expected Monetary value (EMV), Decision trees and Decision Tree modeling, Procedure for solving a decision tree, Sensitivity Analysis

**Module 2:** Behavioural aspects of decision making Naïve Realism, Prospect Theory, The framing of decisions and the psychology of choice,

**Module 3:** Decision making under Risk :

Risk appetite and risk tolerance, Natural variability, Risk assessment, Risk perception and communication, Applications of Conditional probability and Baye's theorem in decision making under risk

**Module 4:** Decision making under uncertainty :

Bounded rationality, Compromise effect and seemingly irrational human decision making, Bias in probability estimates, safety factor, decision making under asymmetric information.

**Module 5:** Executive decision-making in a digitally transformed world :

Decision-making under multistakeholderism, Managing organizational tensions, Decision making under misinformation and disinformation, Problem-solving with reinforcement learning, using Heuristic Techniques in Expert Decision Making, Framework for executive decision making

### **References :**

- Essential Readings: 10 latest articles on Digital Transformation culled from SMR and HBR
- Data, Models, and Decisions; The Fundamentals of Management Science By Dimitris
- Bertsimas and Robert M. Freund
- Decision Making Under Uncertainty: Models and Choices by Charles A. Holloway
- Bounded Rationality in Decision Making Under Uncertainty: Joe Lorkowski, Vladik Kreinovich

## **DIGITAL TRANSFORMATION AND INTELLIGENT AUTOMATION (3 credits)**

### **Course objective**

Digital transformation is the major moving force behind new value creation methodology as well as accelerated innovation. It is also the major component of automation and autonomous systems. Intelligent systems and artificial intelligence are also intertwined with it. Not only management processes but also Management perspectives are undergoing changes due to the same. This course is an attempt to familiarise the students with Digital Transformation from a managerial perspective.

### **Module I:**

Basic Concepts: The economic characteristics of Knowledge. Increasingly connected humans. The evolution of professional work. Innovation in a networked society, the drive towards nexternalization. The liberation of expertise. Production and distribution of expertise.

### **Module 2 :**

Strategy driven digital transformation, Impact of Digital Transformation on Innovation , Moore's law as a staircase of 'S' curves. Decomposition and recombination of production. Where is the value in the value networks?, People and machines as partners in innovation.

### **Module 3 :**

Managing for Automation & Autonomous systems:. Robotic Process Automation and Cognitive Automation and their impact on business processes, Digital to physical conversion, Human-Machine Integration, Distributed digital ledgers and their applications.

### **Module 4 :**

Transformation in Manufacturing, Smart factories, Industry 4.0. and parallel developments in other countries, Simulation and digital Prototyping, additive manufacturing and mass customization. Robots, Cobots & Smart drones, and Digital Twins, Digital olfaction

### **Module 5:**

Transformation in services : Cognitive computing, Explicit uncertainty and Ethical technology, Human Compatible AI, Reinforcement learning systems and Inverse reinforcement learning, Building AI systems that learn what humans want.

### **References :**

1. Essential Readings : 10 latest articles on Digital Transformation culled from SMR and HBR
2. Data, Models, and Decisions; The Fundamentals of Management Science By Dimitris Bertsimas and Robert M. Freund
3. Decision Making Under Uncertainty: Models and Choices by Charles A. Holloway
4. Bounded Rationality in Decision Making Under Uncertainty: Joe Lorkowski, Vladik Kreinovich

## **FUTURE OF WORK & ORGANIZATIONS OF THE FUTURE (3 credits)**

### **About the course :**

Work and workplace are undergoing a disruptive transformation. Organizational structures, relationships and control systems are becoming nebulous and even inverted. Understanding the levers which drive the transformation is essential for you to take advantage of the change. This course will enable the students to identify and understand the causes and effects of this disruptive transformation happening all around us.

### **Module I:**

Organizations of the future: How transformation touches every facet of the organization. Changing role of Manager in the organizations of the future.

### **Module 2 :**

High-performance work systems. New governance models., Decentralized Autonomous organizations

### **Module 3 :**

Workforce ecosystems- a new reality, Internal and external workforce system participants, confronting the orchestration challenge, orchestrating workforce ecosystems

### **Module 4 :**

How to work as we know is going to get transfigured: Future of work – Preparing for and shaping the future of work and organizations. Commoditization of work.

### **Module 5:**

A new workplace without boundaries: Evolution of Cobots and collaborative work. Freelancing economy. Next-generation operating model. Changes in mobility.

### **Reading & References:**

1. Essential Readings : 10 current articles of relevance from SMR and HBR (list to be updated by Instructor)
2. HBR How Smart, Connected Products Are Transforming Companies Their impact on the value chain and organizational structure. The second in a two-part series. By Michael E. Porter and James E. Heppelmann (October 2015)
3. HBR 10 Principles of Effective Organizations by Michael O’Malley August 08, 2022
4. HBR Do We Still Need Teams? By Constance Noonan Hadley and Mark Mortensen April 26, 2022

## **SUSTAINABILITY AND INDUSTRY 5.0 (3 credits)**

### **About the course**

A systematic and formal review of the change in business strategy brought about by the realization of planet boundaries and multistakeholderism. Cyclic economy fundamentals, risks and opportunities due to climatic change, renewable energy sources, and how all these transformations will be initiated, realized and managed by innovation and digital transformation. The change in focus in the Industry 5.0 towards human centric AI and sustainability will be specifically covered. This course seeks to address these questions by providing students with:

1. Knowledge of the various sustainability issues we face today;
2. Exposure to analytical tools and frameworks that will help you understand/analyze as well as impact these issues; and
3. Understanding of firms/organization currently developing new business models (or reforming existing ones) in line with sustainable development

### **Module 1**

Business case for sustainability: Extreme weather threatens supply chains and operations, Global action on climate change is shifting regulatory landscapes and markets, Rising expectations from customers (especially millennials) require companies to tell a better story about their products and services, New technologies creating radical transparency, and Need for businesses to back up their stories with data.

### **Module 2**

Circular business models: Pursuing Value With a Circular Business Model, Major challenges in execution, How to create an exclusive value proposition, Transitioning to NetZero, An introduction to the problem of “worse before better” (WBB), overload, how firms overcome organizational barriers to move in new directions.

### **Module 3**

Frameworks, Measuring and Reporting Sustainability: A finite planet and the concept of Triple bottom line, Green economy, Supply chain sustainability, Why ESG are not sufficient for sustainability, the major barriers to “going green” inside a for profit corporation

### **Module 4**

The idea of the convergence of Digitalization and Sustainability, Digitizing Products for Sustainability’s Sake, The concept of Worse before better, Sustainability oriented innovation, emerging frameworks

### **Module 5**

Sustainability through Industry 5.0 : Introduction to Industry 5.0, enabling technologies for Industry 5.0, Human Centric Automation and AI, Growing human centred businesses, Symbiotic AI workforce, Enabling Human AI collaboration in the industry, Ethical technology

### **Reference and Reading**

- OCW reading material from MIT courses material of courses 15.972 and 15.992
- US Department of Commerce : U.S. Carbon Dioxide Emissions and Intensities Over Time: A Detailed
- Accounting of Industries, Government and Households (latest report)
- US Department of Commerce Measuring the Green Economy



## **ENTERPRISE RISK MANAGEMENT (3 credits)**

### **About the Course:**

Volatility, Uncertainty, Complexity and Ambiguity have become characteristics of the business environment. Managers must develop strategies capable of facing such environment. Enterprise Risk Management (ERM) must integrate strategy with performance. No ERM practice will be relevant unless it takes into consideration the changes wrought by Digital Transformation in a connected world. In addition to the fact that the division of risks across the various categories listed above requires tailored decisions, what one organization may call strategic, may be considered operational in another. The view is that the classification into such areas is an important tool to help decompose a very large problem into smaller pieces. However, all these pieces must be dealt with and then looked at by a senior manager to determine which risks are dealt with first, which later and which will currently be knowingly ignored or perhaps accepted without any action to manage them. This training attempts develop an understanding of risk and uncertainty as well as the factors which cause the shift towards uncertainty. This training is primarily aimed at students who are planning for a non-academic career.

### **Module 1**

Introduction to Risk, Uncertainty and Risk, Role of Strategy in converting uncertainty to Risk, Risk Appetite and Risk Tolerance, Factors affecting the Risk profile of a Business

### **Module 2**

Risk Management, Identification; Assessment, Prioritization, Risk response, Implementation

### **Module 3**

Risk Models and Risk Quantification

### **Module 4**

Cyber risks and supply chain risks

### **Module 5**

Meeting the future: Dynamic risk management for uncertain times, Detecting risks and control weaknesses, Delimit Risk Appetite, Decide on Risk Management approach, Five actions to build dynamic risk management, Post Quantum Cryptography, Explicit Uncertainty ; Ethical technology

### **References**

1. Operational Risk Management: A Practical Approach to Intelligent Data Analysis by Yossi Raanan, Ron S. Kenett · 2011
2. Enterprise Risk Management Models by David L Olson & Desheng Wu
3. Empowered Enterprise Risk Management: Theory and Practice by Hakan Jankensgard, Petter Kapstad · 2021
4. Implementing Enterprise Risk Management: From Methods to Applications (Wiley Finance) by James Lam
5. System Reliability Theory ;Models, Statistical methods and Applications by Marvin Rausand

## HR SPECIALIZATION

### **HRM003 ORGANIZATION DEVELOPMENT AND CHANGE MANAGEMENT (Credits 3)**

#### **Objective**

The course aims at sensitizing the students about the dynamics involved in the management of change. The basic concepts, approaches, change initiatives along with the OD interventions are introduced to the students to manage the change processes

#### **Module-1**

Introduction/Overview to Organization Development – History, Definitions, Process - OD Practitioner – Role, Skills and Style, Consultant and Client Relationship.

#### **Module-2**

OD Interventions – Overview of Different Categorizations- Human Process Interventions- Techno Structural Interventions- Human Resource Management Interventions- Strategic Interventions.

#### **Module-3**

Introduction to Change Management - Perspectives on Organizational Change – Need for Change Management, Dimensions of change, Change Management Models of Kurt Lewin, Kotter, Switch Model, ADKAR Model of Prosci, GE Model, Experience Change Model.

#### **Module-4**

How Culture impacts and reinforces change, Need for managing culture during change interventions, Assessing Culture in the change context, Linking culture to HR sub systems.

#### **Module - 5**

Change Management Process and Stages covering Stakeholder mapping, Change Impact Assessment, Change Management Plan Covering Communication Plan, Learning Plan, Cultural transformation plan, Other Change interventions and Change Readiness Assessment.

#### ***References /Suggested Reading:***

- 1.Daryl R. Corner: Managing at the Speed of Change
- 2.Chip Heath and Dan Heath: Switch – How to change things when change is hard
- 3.John Kotter: Leading Change
- 4.John Kotter: The Heart of Change – Real Life stories of how people change their organizations
- 5.Dan S Cohen: The Heart of Change Field Guide

## **HRM005 PERFORMANCE MANAGEMENT (Credits 3)**

### **Course Objectives**

This course examines the significance of an effective performance management system in helping organizations in defining and achieving short- and long-term goals. This course will help students to understand that performance management is concerned with identifying, measuring, developing the performance of individuals, teams and aligning their performance with the strategic objectives of the organizations.

### **Module-1**

Performance Management System: Basics of PM, definition, purpose, principles, concerns, ethical considerations, challenges and Scope. Performance Management System as a business strategy and financial results control systems.

### **Module-2**

Motivational theories and performance; Designing of Performance Management Systems based on motivational theories: Creating performance measures, setting performance goals, measuring performance, rewarding Performance; Performance linked to reward system and employee productivity.

### **Module-3**

Performance Appraisal (PA): Performance goals and standards, need and objectives of PA; Uses and process of Performance Appraisal, Characteristics of effective appraisal system; Different Methods of PA (Traditional and Contemporary). Appraisal for managers, supervisors and workers. Performance measurement and the balanced scorecard.

### **Module-4**

Performance Management skills: Performance feedback, counselling, mentoring and coaching - Role of HR Managers and Line Managers in effective PMS.

### **Module-5**

Performance Management Systems in global context: Philosophy, culture and practice in India and the top industrial economies of the world; PMS challenges and issues in managing global team / virtual team and 'gig' workers; New normal: Post-Covid changes in PMS.

### **Suggested Reading**

1. Aguinis, H.. Performance management. Pearson Education India
2. Rao, T. V. and Pareek (ED) Redesigning Performance Appraisal Systems, Tata McGraw Hill Publication Co. Ltd., New Delhi.
3. G.K.Suri, C.S Venkata Ratnam and N.K.Gupta, Performance Measurement and Management
4. Merchant, A. K. & Van der Stede, W. A., Management Control Systems: Performance Measurement, Evaluation and Incentives, Second Edition, Pearson Education Limited, 2007
5. Niven, P. R., Balanced Scorecard Step by Step: Maximizing Performance and Maintaining Results, John Wiley and Sons, 2002, (Chapters 1 – 6)

## **HRM001 HUMAN RESOURCE DEVELOPMENT (Credits 3)**

### **Objective:**

This course will provide fundamental knowledge of Human Resource Development (HRD) concepts and interventions. It develops a critical understanding of various aspects of human resource development initiatives in training, employee development that will enable the development of intellectual, social, professional and personal skills to perform effectively in associated professional roles. It also helps to understand the strategic linkages between HRD and business in organizations.

### **Module-1**

Introduction to HRD: Concept, Evolution, Definition; Theoretical foundations; Objectives of HRD; Scope of HRD, Functions of HRD; Competency models; Roles & competencies of an HRD Professional; Framework for HRD Process; Learning & HRD: Theories of Learning - Operant conditioning, Reinforcement, Social Learning, Adult Learning; Learning Cycle, Learning Styles; Motivation theories & HRD; Aligning HRD with Business strategy

### **Module-2**

HRD Interventions: Training & Development: Training Need Assessment: Levels and Methods of Need Assessment; Training Design: Key activities and Considerations in Designing Effective Training Programs; Training Development & Implementation: Training Methods: Traditional Methods: Lecture, Discussion, Audiovisual Techniques, Simulations, Case Studies, Business Games, Role Plays, On-the-Job Training; Technology-based Methods: Computer Based Training, Online learning/E-learning, Blended learning, Virtual Reality, Mobile Technology-enabled training, Intelligent Tutoring Systems, Distance Learning; Train the Trainer, Transfer of Training; Evaluation of training: Models and Frameworks of Evaluation, Kirkpatrick's model, Determining Return on Investment (ROI). Influence of Technology in Training: Digital collaboration, Learning Environments (Classroom, Technological, Blended), Technology for training support, Technology for Training Administration, Learning Management Systems.

### **Module-3**

HRD Interventions: Performance Appraisal; Potential Appraisal; Employee Counseling; Coaching; Mentoring, Organization Development & Change; Modern HRD Interventions: Diversity Training, Cross-Cultural Training, HRD Programs for Culturally Diverse Employees

### **Module-4**

HRD Interventions: Employee Empowerment; Quality of Work Life (QWL); Career Planning, Career Management and Career Development; Assessment Center; Management Development Programs; Learning Organization

### **Module-5**

Strategic HRD; Knowledge Management; Intellectual Capital, HRD & Business Linkages: HRD Audit - Concept, Objectives, Need, HRD Audit Dimensions, Methods, HRD Scorecard

### ***Suggested Textbooks***

- 1 Jon M. Werner, MindTap for Human Resource Development: Talent Development (7th Edition), Cengage Learning. (eBook enabled through MindTap App)
2. Tapomoy Deb, Human Resource Development: Theory & Practice, Ane Books, India.
3. Raymond A. Noe, Employee Training & Development, McGraw-Hill Irwin

***References***

4. John P. Wilson, Human Resource Development, Kogan Page
5. T.V. Rao, HRD Score Card 2500: Based on HRD Audit, SAGE Response. (Paperback 2008 or e-version 2018)

## **HRM008 - REWARD MANAGEMENT (3 credits)**

### **Objective**

Reward Management refers to the strategies, practices, and processes involved in rewarding employees in accordance to their contribution to organizational success. In this course students will learn various economic and social psychology theories that underlie reward management, elements of employee reward, methods used in designing and administering reward systems, and the relevant laws governing reward management in India.

### **Module 1**

**Introduction to reward management:** Definition, evolution, and characteristics; The reward management framework– Aims, strategic reward, contextual factors, reward concepts, and reward philosophy. Reward system. Effective reward management. **Theories of Wages:** Marginal Productivity Theory, Classical Theory of Employment, Real Wage, Sticky wages, Efficiency theory, Human Capital theory, Agency Theory, Reservation wages, sorting and Signaling. Minimum Wage, Fair Wage, and Living Wage. Motivational theories related to compensation: Expectancy theory, Equity theory

### **Module 2**

**Valuing and grading jobs:** Job analysis – relevance to compensation; Job Evaluation- Job Evaluation Methods - Hay Guide Chart Profile Method; Designing Pay Levels: Pay Mix, and Pay Structures – Grade Structures, Broad banding, Market Rate Analysis, Compa-Ratio, Pay reviews. Job and Person based structures. Job, skill, and competence analysis; Compensation HRIS.

### **Module 3**

**Elements of Employee Reward:** Basic, variable pay, allowances, benefits, and non-monetary rewards. Perquisites and Fringe Benefits. Employee Pension schemes. Contingent pay schemes for individual and team (Bonus, Incentives, Profit sharing, Gainsharing, Share schemes, etc.). Shop-floor compensation schemes (Payment-by-results; Time rate and Piece Rate). Emerson Efficiency Plan; Halsey Premium Plan; Rowen Premium Plan; Gantt plan, Taylor Differential Plan; Merrick Differential Plan. **Total Rewards:** Intrinsic and Extrinsic Rewards. Monetary and Non-monetary rewards. The Psychological Contract. Hackman and Oldham Job Characteristics Model. Cost-to-Company.

### **Module- 4**

**External influences on reward management.** Wage Survey - Wage Board – Latest Pay Commission report - Consumer Price Index, Cost of Living Index - Wholesale Price Index.

**Code on Wages 2019:** Minimum Wages Act 1948; Payment of Wages Act 1936; Equal Remuneration Act, 1976; Maternity Benefit Act, 1961; Workmen’s (Employee’s) Compensation Act, 1923; Employees’ State Insurance Act, 1948; Payment of Bonus Act, 1965; Employees Provident Fund Act, 1952; Payment of Gratuity Act, 1972.

### **Module-5**

**Rewarding Special Groups.** Rewarding Directors and Senior Executives, Sales force and Customer Service Staff, and Knowledge workers. Special aspects of Reward Management: Mergers and Acquisitions; Start-up, high-growth Organizations, and gig workers; **The Practice of Reward Management:** Developing, managing, and evaluating reward management; Recent trends: Post Covid changes in compensation practices;

### **Text Books**

1. Newman, J.M., Gerhart, B., & Milkovich, G.T., (2017). Compensation. McGraw-Hill Education.

### **References**

2. Armstrong, M., & Murlis, H. (2007). Reward Management: A Handbook of Remuneration Strategy and Practice. Kogan Page Publishers.
3. Armstrong, M (b). (2002). Employee Reward. CIPD Publishing
4. Gerhart, B., Rynes, S. L., & Rynes, S. (2003). Compensation: Theory, evidence, and strategic implications. Sage.
5. Singh,B.D,(2017). Compensation and Reward Management, Excel Publishers

## **HRM009 COMPETENCY BASED HUMAN RESOURCE MANAGEMENT (Credits 3)**

### **Course Objectives**

This course aims to equip students with the knowledge and skills to design competency framework and effectively work with them by linking to human resources sub-systems. Additionally, the course covers measurement of competencies through Behavioral Event Interviewing (BEI) and design of Assessment Tools for Assessment/Development Centre.

### **Module-1**

Evolution of Competency Based HRM; Definition, Purpose, Types of competencies, classification of competencies, criticisms of working with competencies and responses, Challenges of working with competencies, Characteristics of good competencies.

### **Module-2**

Different approach to competency mapping, approaches to describing competency maps, scale construction.

### **Module-3**

Linking Competencies to HR subsystems and its relevance (viz. Competency Based Selection; Competency based Training & Development, Competency Based Performance Management, Career and Succession Planning etc).

### **Module-4**

Competency Based Interviewing (CBI/BEI), Features of CBI, Strengths and weaknesses of CBI, Funneling/Probing techniques, Appropriate and Inappropriate questions, Power of Silence, CBI Stages, Rating Errors.

### **Module-5**

Assessment & Development Centre; Design of Assessment tools mapped to various behavioral indicators. (Group Interactive Exercise, In-basket exercise, Role Play, Case Study, Analysis - Presentations, Simulations, Ability Tests etc.).

### **References**

1. Competency based HRM; Strategic resources for Competency Mapping, Assessment and Development Centres – Ganesh Shermon
2. Assessment & Development Centres; Iain Ballantyne & Nigel Povah
3. Designing and Achieving Competency: A competency based approach to developing people, Boan R, Sparrow P., McGraw Hill
4. David D. Dubois, Competency-based Human Resource Management, Nicholas Brealey Publishing Lim
5. Talent Assessments – A manual of Competency based Assessment Development tools – Ganesh Shermon and Anavir Shermon



## **HRM007 COACHING (Credits 3)**

### **Course Objectives**

This course aims to equip students with the knowledge and skills to enable them to effectively develop themselves or others using a structured coaching process and be skilled in utilizing the coaching tools and techniques in a variety of situations.

### **Module-1**

Coaching Foundation - Overview of coaching, need for coaching, Definitions of Coaching, Relationship of Coaching to other practices, Coaching Dimensions. Why is Coaching important? Principles of Coaching, International Coach Federation (ICF) Core Competencies, ICF Ethical Guidelines.

### **Module-2**

Coaching Conversations - establishing the right fit for a coaching relationship, Elements to consider for the Right Fit, Questions the Coach Should Be Prepared to Answer, Client Readiness for Coaching, International Coach Federation Ethical Guidelines, Topics and Elements for Coaching Agreements, Coaching Agreements.

### **Module-3**

Coaching Language & Models - Dialogue and Supporting Skill Sets – Listening, Inquiry and Advocacy, speaking with Intent, the power of silence, speaking guidelines, insight  
Coaching Models - GROW Model, The Coach Model, Inquiry and Advocacy within the Coach model, CREATE Coaching Model, Dance of Insight

### **Module-4**

Structure of coaching engagements - Setting Primary Goals, Building Strategies, Setting Actions, SMART/CRAFT guidelines for Objectives/Goals  
Managing Coaching Sessions – General, Managing Session 1, Managing Session 2, Managing Session 3-11 and Managing Session 12, Barriers to getting “Unstuck”

### **Module-5**

Sources and Methods of Collecting Data, Effective Feedback Techniques, measuring and tracking results Executive Coaching and Team Coaching

### **References**

1. Jackie Arnold, Coaching Skills for Leaders in the Workplace: How to Unlock Potential and Maximise Performance, Robinson Publishing.
2. Max Landsberg, Mastering Coaching: Practical insights for developing high performance, Profile Books.
3. Harvard Business Essentials series, Coaching and Mentoring: How to Develop Top Talent and Achieve Stronger Performance, Harvard Business School Publishing Corporation.
4. Marshall Goldsmith, Coaching for Leadership: writings on Leadership from the world's Greatest Coaches, Wiley.
5. John Whitmore, Coaching for performance: growing people, performance and purpose, Nicholas Brealey publishing.

## **HRM004 STRATEGIC HUMAN RESOURCE MANAGEMENT (Credits 3)**

### **Course Objectives**

The objective of the course is to develop the perspective of strategic human resource management. This course will facilitate the students to distinguish the strategic approach to human resources from the traditional functional approach. This will help the future managers to understand the relationship of HR strategy with overall corporate strategy, understand the strategic role of specific HR systems, and appreciate SHRM in the context of changing forms of organization.

### **Module-1**

Introductory Case- Strategy, Vision Mission, Value, Generic Strategies- Business and Strategy - Competitive Strategy - “Ambitions beyond the resources”: The Concept of Strategic Intent - A hand in every pie? - The Five Forces Model as a model to analyze the business entity/Strengths Weaknesses Opportunities and Threats - Portfolio Models / BCG Matrix - Competition from the Strategy Perspective.

### **Module-2**

The organization: A New Look - Formulating Strategy - Organization, Culture and Strategy - A value addition perspective of organizational processes - Beyond Structure.

### **Module-3**

A (new) theory of Management- HRM and the Environment- The transformations in HR from a strategy perspective - Versions of HRM - The Miles and Snow typology of Organization- The Systematic Approach to Strategy/ Formality in Strategic Management- The idea of Fit or Congruence - Theoretical perspectives for HRM- The models of SHRM: High Commitment, High Performance and High Involvement- Motivation for Performance-Resource and Competition

### **Module-4**

Human Resource as Resource- The resource based view of HR Strategy- Competitive advantage through people: The Best practices Approach- HRM impact on Performance- Competitive advantage through people: Best fit- Competitive advantage through people: Bundling- Competencies- HR and dynamic capability- Rewards and Strategy-The Scorecard Approach: A Tool to bridge HR and Strategy- Corporate Strategy and HR Strategy- Why Strategies fail: A Human Dilemma- HRM – and the firm Leadership and Strategy -The Manager’s Job- Growth and HR Challenge.

### **Module-5**

Change Management -Models of Change Management - Managing Culture/ Institutionalizing the Strategy. Case 1- Case 2- Case 3 (Capstone Cases)

### **References**

1. Jeffrey A Mello, Strategic Human Resource Management.
2. Michael porter What is Strategy
3. Michael Armstrong, Strategic Human Resource Management: A Guide to Action, Kogan Page Publishers, Jan-2000

## **HRM013 INTERNATIONAL HUMAN RESOURCE MANAGEMENT (Credits 3)**

### **Course Objectives**

The objective of this course is to provide students an in-depth understanding of the concepts, approaches and challenges relating to the management of human resources in international businesses. Students will be able to appreciate the various aspects to be considered while taking human resource management decisions in the global context of multinational enterprises.

### **Module 1**

Introduction to International Human Resource Management (IHRM): Differences between Domestic and International HRM, Variables that moderate differences between domestic and international HRM; Cultural context of IHRM: National cultures and HRM; Major economies and their HRM practices; Organizational context of IHRM: Organizational structure of Multinational Enterprises, IHRM and Global organizational design: Designing the Multinational Enterprise.

### **Module 2**

International Staffing: Sources of Human Resources, Approaches to Staffing, Host-Country Nationals (HCNs), Parent-Country Nationals (PCNs), Third-Country nationals (TCNs), Recruitment and Selection of International Managers; International assignments: Reasons and Types of International assignments, Roles of Expatriates, Non-expatriates and Inpatriates, Selection Criteria for Expatriates, Expatriates in host country, Freelance expatriates, Expatriate Failure and Success.

### **Module 3**

International Performance Management: Multinational Performance management, Culture and performance management, Performance management of International employees; Performance Appraisal of International employees; International Compensation: Key components of an International Compensation program for Expatriates, Approaches to International Compensation of Expatriates.

### **Module 4**

International Training, Development, Careers, and Talent: Components of effective pre-departure training programs, Cross-cultural training, TCN and HCN expatriate training; Developing Staff through International assignments, Developing International teams, Virtual and Global teams; Repatriation process, Re-entry and career issues, Re-entry and repatriation problems, Global Leadership Development.

### **Module 5**

International Industrial relations: Industrial relations policies and practices of Multinational firms, Regulation of Multinationals by international organizations; Trade unions and international industrial relations; Managing HR in Offshoring countries.

Comparison of flexibility and work–life balance across countries; Managing Diversity in Multinational firms; International HRM in Cross-border Mergers & Acquisitions, International Alliances, and SMEs; Future of IHRM: Trends & Challenges.

### ***Books/References:***

1. Dowling, P. J., Festing, M., & Engle, A. D. (2017). International human resource management. Hampshire: Cengage Learning.
2. Brewster, C., Houldsworth, E., Sparrow, P., & Vernon, G. (2016). International human resource management. London: Chartered Institute of Personnel and Development.
3. Briscoe, D., & Schuler, R. (2009). International human resource management: Policies and practices for multinational enterprises. New York, NY: Routledge.
4. Aswathappa, K., Dash, S. (2020). International human resource management (3rd edition). New Delhi: Tata McGraw Hill Education.
5. Edwards, T., & Rees, C. (2017). International human resource management: Globalization, national systems and multinational companies. Harlow: Pearson Education.

## **HR ANALYTICS (Credits 3)**

### **Course Objectives**

The Human Resource analytics (HR Analytics) aim to provide better insight into the human resource processes such as hiring, training, and measure the impact of HR metrics with the objective of improving business performance. The HR analytics process involves gathering, analyzing relevant data, interpreting the data patterns, deriving inference from this analysis and applying this knowledge to make informed decisions on organizational effectiveness, and business performance.

### **Module 1**

Introduction: Evolution of Business Analytics; Rise of HR Analytics; HR metrics Vs analytics-differences; Applications in the workplace; Basics HR functions – Staffing, Performance management, Training & development – Separation

### **Module 2**

Database and Information Management; Introduction to data analysis: Basic statistics; Data analytical tools: RStudio, Python, MS Excel and SPSS, Creating HR Dashboards - Slicing and dicing of HR Data: Pivot table applications - Applications of Tableau in HR data visualization

### **Module 3**

Staffing Analytics Overview: role of analytics in selection & recruitment: analytics in sources of selection / recruitment – effectiveness of interviewing / hiring process - Internal Mobility: Analyzing Promotability, Optimizing Movement within the Organization, Attrition and employee turnover: understanding and reducing turnover, predicting attrition; Analytics in succession planning;

### **Module 4**

Role of HR Analytics in Performance management – predicting Performance, high performance individuals & teams - Role of HR Analytics in Training and development: pre-post training comparisons – longitudinal studies; Exit interview — analyzing employee feedback-feedforward to Management; HR Analytics in social networks - Mapping and evaluating social networks, Measuring Outcomes;

### **Module 5**

HR Analytics and organizational performance: Key research findings – Role of HR analytics in Organizational change & culture: Organizational interventions – monitoring of interventions – pre & post interventions survey and impact study - Employee engagement: Employee attitude survey; Future Directions

### **Text books**

1. Practical Applications of HR Analytics - A Step-by-Step Guide, Pratyush Banerjee Jatinder Pandey, and Manish Gupta, SAGE Texts, 2019
2. Edwards, M. R., & Edwards, K. (2019). Predictive HR analytics: Mastering the HR metric. Kogan Page Publishers.

***References***

1. Waters, S. D., Streets, V. N., McFarlane, L., & Johnson-Murray, R. (2018). The practical guide to HR analytics: Using data to inform, transform, and empower HR decisions. Society for Human Resource Management.
2. Lee, Gregory John. HR Metrics: Practical Measurement Tools for People Management. Knowres Publishing, 2011
3. Cascio, W. & Boudreau, J. Investing in People: Financial Impact of Human Resource Initiatives. 2nd Edition. Upper Saddle River, NJ: FT Press, 2011
4. Jac Fitz-Enz. The New HR Analytics: Predicting the Economic Value of Your Company's Human Capital Investments (American Management Association), 2010.
5. Pease, G., Byerly, B., & Fitz-enz, J. (2013). Human capital analytics: How to harness the potential of your organization's greatest asset.

## **POSITIVE PSYCHOLOGY FOR MANAGERS (Credits 3)**

### **Objective**

Positive psychology, in the context of organization, aim to encourage employees to discover and nurture their character strengths for better performance. The course highlights the need for one to shift their negative outlook to a more optimistic view in order to improve quality of life. The course briefs the nature of positive emotion, their influence on personal, social well-being and organizational behavior.

### **Module 1**

Introduction – Psychology Vs Positive Psychology and its evolution; Importance and need of the well-being in organization - Darkside of the workplace - Burnout-illbeing; Dimensions and Scope of Positive Psychology - Basic Themes of Positive Psychology; Research methods in positive psychology.

### **Module 2**

Theories of positive emotions: Broaden and build theory of positive emotion; Affective event theory; Self-determination theory; PERMA model; Emotional Intelligence; Positive psychology and Personality & Motivation; Coping strategies: positive and negative coping; Indian contribution: Theory of Karma Yoga and work;

### **Module 3**

Basic emotions; Positive vs negative emotions; Positive emotions- nature, definition: Character Strengths and Virtues, Happiness, Gratitude, Mindfulness, Compassion, Forgiveness, Play, Joy, Pride, Altruism, Loving-kindness, Hope, Optimism, Flow, Workplace spirituality, Meaning in work and resilience;

### **Module 4**

Emotion and productivity: Influence of positive emotions on Individual and Group in workplace - mental, physical and social well-being - Employee engagement - Individual, team, and organizational performance; Behavioral interventions to foster positive emotions; Key research findings of positive psychology in workplace.

### **Module 5**

Positive organizational scholarship interventions: Psychology of gainful employment- Psychological capital – Role of Positive psychology on Leadership, Organizational culture, and Change; Global best practices: Organizational initiatives on employees' well-being - Research findings on great places to work for; Other side of positive emotions

### **Text books**

1. Lopez, Pedrotti, & Snyder: Positive Psychology - The Scientific and Practical Explorations of Human Strengths (2019)

## References

1. Seligman, Martin E.P. (2002). *Authentic Happiness: Using the New Positive Psychology to Realize Your Potential for Lasting Fulfillment*. New York, NY: Free Press.
2. Compton, & Hoffman: *Positive Psychology - The Science of Happiness and Flourishing* (2019)
3. Snyder, C. R., & Lopez, S. J. (Eds.). (2001). *Handbook of positive psychology*. Oxford university press.
4. Linley, P. A., Harrington, S., & Garcea, N. (Eds.). (2010). *Oxford handbook of positive psychology and work*. Oxford University Press, USA.



## **TALENT ACQUISITION AND RETENTION (Credits 3)**

### **Course Objectives**

1. To enable the students to understand the issues related to manpower sourcing and the sourcing process right from resourcing strategies to placement.
2. To make the students understand the importance of human resource planning in the talent management function.
3. To help the students learn the art of getting the right and the best employee for the job and the strategies for retaining him/her.

### **Module 1: Sourcing Strategy and Strategic HR Planning**

Objectives of People Resourcing Strategy; Integrating Business and Resourcing Strategies - Strategic HRM Approach to Resourcing; Attraction Strategies; Creating a Great Place to Work; Employee Value Proposition; Employer Branding. Strategic HR Planning and Forecasting – Objectives and Steps; Strategic HR Planning at Macro and Micro levels; Strategic HRP – Process, Methods and Tools; Demand and Supply Forecasting; Quantitative and Qualitative Tools for HR Forecasting; HR Inventory; Return on Investment (ROI) in HR Planning. Job Analysis, Job Description and Job Specification – Concept, Steps and Techniques; Application of Industrial Engineering Techniques; O\*Net Resources; Job Design.

### **Module 2: Recruitment**

Recruitment Policy and Approaches; Sources of Recruitment – Internal and External; Advertisement; On-line Recruitment; Job Portals; Social Media Recruitment, HR Apps for Web-Recruiting. Bio-data; Resume, Curriculum Vitae, Weighted Application Blank; Processing Applications; Recruitment Process Outsourcing – Head-hunters and Consultants; Campus Recruitment; Walk-ins, Job Fair; Referrals. Recruitment in New-gen Organizations; Recruitment Cycle/Lead Time. The Employment Exchanges (Compulsory Notification of Vacancies) Act, 1959.

### **Module 3: Selection**

Selection Tests – Types; Ability Tests, Assessment Centres, Honesty and Integrity Tests, Video-based Situational Testing, Psychometric Testing, Polygraph, Graphology; Validating Tests and Interpreting Test Results. Selection Interviews – Purpose, Types and Techniques; Behavioural Competency-based Interviews; Psychometric Interviews; Advantages and Limitations of Interview; Enhancing Interviewing Skills. Medical Check-up; References and Background Checks; Ensuring Person-Job Fit.

### **Module 4: On-Boarding and Socialization**

Employment Offers; Service Conditions; Contract of Employment; Relevant Provisions of the Industrial Employment (Standing Orders) Act, 1946; Psychological Contract. On-boarding and Induction – Meaning and Objectives; Difference between Orientation and Socialization; Employee Orientation – Purpose and Types; Buddy System; Steps in Induction Program; Process of developing Orientation Programs. Placement – Procedures; Probation and Confirmation; Apprenticeship; The Apprentices Act, 1961. Internal Mobility – Transfer and Promotion- Policies and Procedures.

### **Module 5: Retention Strategies**

Retention Planning and Strategy, Flexibility Planning; De-hiring for Right-sizing; Factors affecting Retention; Emergence of Short-term Employment, Temping; Job Hopping; Offshoring of Jobs; Talent Drain. Bad Recruitment – Cost; Issues of Employability; Labour Wastage – Absenteeism and Labour Turn Over; Causes and Cost of Labour Turn Over; Causes of Redundancy. Release of the Employee; Voluntary Release, Designing Voluntary Retirement Schemes; Outplacement. Retirement, Superannuation, Dismissal and Retrenchment. Retention Strategies; Setting High Performance Standards; Trends in IT, Virtual and Borderless Organizations.

### ***References***

1. Human Resource Planning, Dipak Kumar Bhattacharyya, Excel Books, New Delhi
2. Human Resource Management: Gary Dessler and Biju Varkkey, Pearson: Prentice Hall, New Delhi
3. Human Resource Development: Michael Armstrong
4. Human Resource Planning: Approaches, Needs, Assessment and Priorities in Manpower Planning, Sreevastava M.P., Manak Publishers, New Delhi
5. Human Resource Planning and Audit, ArunSekhri, Himalaya Publishing House

## **STRATEGIC INDUSTRIAL RELATIONS (Credits 3)**

### **Course Objectives**

1. To study and comprehend the intricacies of employee relations and its strategic role in maintaining an environment that is conducive for achieving the business objectives of the organization (Interpersonal Relations – Group Projects).
2. To know the theoretical foundations of trade union movement and understand the legal framework of operation, role and functions of employee unions in organizations.
3. To understand the concept, nature, process, techniques and legal framework of collective bargaining and to learn negotiation skills and the various stages of negotiations for industrial conflict resolution.

### **Module 1**

Industrial Relations: Philosophy and Concept; Origin and Development of IR; Context and Environment of IR; Approaches to IR; Human Relations Approach, Psychological Approach, Sociological Approach, Gandhian Approach, Marxian Approach and Dunlop's System Approach

### **Module 2**

Trade Unions: Concepts and Objectives. Structure, Functions, Membership, Union Leadership, Trade Union Disputes. Indian Trade Unions Act, 1926 -Registration- procedure. Recognition of Trade Unions, Rights and obligations of registered trade unions.

### **Module 3**

Collective Bargaining: Concept, Origin and Development; Pre-requisites for Effective Collective Bargaining, Process of Collective Bargaining; Collective Bargaining Approaches and Techniques; Collective Bargaining and Legal Framework; Trends and Practice of Collective Bargaining in India

### **Module 4**

Discipline: Nature and Concept, Approaches to Discipline; Statutory and Non-statutory Measures for Discipline; Standing Orders, Service Rules, Code of Discipline. Grievance: Concept, Significance, Methods of Redressal. Domestic Enquiry: Principles of Natural Justice; Misconducts, Disciplinary Procedures, Punishment, Positive Disciplinary Intervention

### **Module 5**

Industrial Disputes: Causes, Manifestation and Effects, Trends in Industrial Disputes in India; Industrial Disputes Act, 1947; Instruments of Economic Coercion; Strike, Lock-out, Lay-off, Retrenchment and Closure; Unfair Labour Practices. Dispute Settlement Machinery- Conciliation, Board of conciliation, Voluntary Arbitration, Adjudication. Salient features of IR Code 2020.

### **References**

1. Industrial Relations – C.S. Venkata Ratnam
2. Industrial Relations in India: Shifting Paradigms – Ratna Sen
3. Dynamics of Industrial Relations – C.B. Matoria, Satish Matoria & S.V. Gankar
4. Industrial Relations, Trade Unions and Labour Legislation – P.R.N. Sinha, Indu Bala Sinha & Seema P. Shekhar
5. Industrial Relations and Labour Laws – S.C. Srivastava
6. Personnel Management & Industrial Relations – P.C. Tripathi
7. Personnel Management & Industrial Relations – R. S. Davar

## **EMPLOYEE WELFARE AND LEGISLATIONS (Credits 3)**

### **Course Objectives**

To create an understanding about the different social security and welfare programmes offered by organizations, the machinery for their implementation and their significance in organizational functioning.

### **Module 1**

Concepts of welfare and employee welfare; principles and philosophical approaches to employee welfare, welfare as an HR function. Historical development of employee welfare; Need and scope of employee welfare in India; Role of Government, Management and Trade Unions in welfare; agencies of employee welfare. Welfare as social responsibility of business; welfare audit; impact of welfare on Labour productivity.

### **Module 2**

Concept of social security; ILO and social security, social security measures in India; Pertinent legislations – Workmen's Compensation Act 1923, Employees State Insurance Act, 1948, Employees Provident Fund and (Miscellaneous Provisions) Act, 1952; Maternity Benefit Act, 1961; Payment of Gratuity Act, 1972. Salient features of Social Security Code, 2020

### **Module 3**

Welfare Legislations and Latest Amendments: Factories Act, 1948; Plantation Labour Act, 1951; Contract Labour (Regulation and Abolition) Act, 1970; Kerala Shops and Commercial Establishment Act, 1960; Kerala Labour Welfare Fund Act, 1975; Rights of Persons with Disabilities Act, 2016. Kerala National and Festival Holidays Act, 1958; Workers' Education Scheme, Employees Co-operatives and Credit Societies; Industrial Housing – Need and importance.

### **Module 4**

The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013. Institute. Directorate of Factories and Boilers; Kerala Factories (Welfare Officers) Rules, 1957 Salient features of Occupational Safety, Health and Working Conditions Code, 2020.

### **Module 5**

Labour Administration – machinery for labour administration; Centre and State, Ministry of Labour and employment, Central Labour, Impact of Economic Liberalization on labour policy, Employee Welfare in the present Indian context, Emerging trends in employee welfare.

### **References**

1. Mamoria, C.B. & Mamoria, Satish; Labour Welfare, Social Security and Industrial Peace in India; KitabMahal, New Delhi.
2. Mongia, J.N. Readings in Indian Labour and Social Welfare, Atma Ram and Sons.
3. Punekar et al.; Labour Welfare, Trade Unionism and Industrial Relations; Himalaya Publishing House.
4. Sarma, A.M., Aspects of Labour Welfare and Social Security; Himalaya Publishing House.
5. Tyagi B.P. Labour Economics and Social Welfare; Jai Prakash Nath and Co.
6. Saxena, R.C.; Labour Problems and Social Welfare; K. Nath and Co.
7. Moorthy, M.V., Principles of Labour Welfare

## **BUSINESS ANALYTICS SPECIALIZATION**

### **BI016 ADVANCED BUSINESS ANALYTICS (Credits 3)**

#### **Course objective:**

- To introduces different analytics algorithms and approaches to optimism decision making in business.
- To impart knowledge in optimizing various machine learning algorithms
- To understand the scope of data simulation for practice.

#### **Module 1: Time Series Analysis**

Introduction to time series analysis, Time series objects, Trends - Cycles and Noise, and features, autocorrelation and ACF, Moving Average models, exponential smoothing, AR Model, ARIMA Model

#### **Module 2: Classification and Regression Trees**

Classification trees - Understanding information gain, Building and Pruning trees, Understanding prediction error. Regression Trees – Model building, Cross validation and prediction error

#### **Module 3: Support Vector Machine (SVM) and Naïve Bayes Classifiers**

Understanding SVM classifier, SVC – Linear Kernel, SVC -Polynomial Kernel, Understanding Naïve Bayes Classifier, Naïve Bayes Model, Model validation

#### **Module 4: Introduction to Dimensionality Reduction Techniques**

Factor Analysis, Forward feature selection, Backward Feature Elimination, Principal Component Analysis

#### **Module 5: Data Simulation**

Understanding simulation, Generating random values for variables, Generating Probability distributions, Application of simulation in business

#### **References:**

1. Business Analytics: The Science of Data-Driven Decision Making by U Dinesh Kumar
2. Introduction to Machine Learning with R –Scott V Burger
3. Business Analytics, Third Edition by James R Evans
4. Business Analytics - Data Analysis and Decision Making by S. Christian Albright and Wayne L. Winston
5. Matthias Templ, "Simulation for Data Science with R", PACKT publishing

## **BI012 APPLIED BUSINESS ANALYTICS (Credits 3)**

### **Course objectives:**

1. Understand and articulate a business problem and formulate it.
2. Understand and apply analytics in the business context.
3. Identify and build predictive models to solve decision problems in different settings
4. Apply knowledge and develop solutions across a range of functional areas (Marketing, Finance, Operations, HR and healthcare).

### **Module 1: HR Analytics**

Understanding role of analytics in HR Function, Modelling Attrition - Understanding how Modelling attrition helps an organization. (Classification technique); Model Building, Model Diagnostics and evaluation

### **Module 2: Operations Analytics**

Understanding role of analytics in Operations Analytics; Demand forecasting - Understand modelling techniques to Predict demand (Time series Modelling); Machine error alerts - Understand modelling techniques to Predict failures in systems (Classification technique)

### **Module 3: Finance Analytics**

Understanding role of analytics in finance; Customer profiling using clustering techniques (Cluster Analysis); Applied Credit risk modelling using classification and regression techniques (Classification technique)

### **Module 4: Marketing Analytics**

Understanding analytics in marketing. Market Basket Analysis; Conjoint Analysis

### **Module 5: Healthcare Analytics:**

- Relevance of analytics in healthcare.
- Patient risk profiling (Classification technique)
- Patient visit cycle time prediction (Regression Model)

### **References:**

1. Data Mining and Business Analytics with R, Johannes Ledolte, Wiley
2. Win with Advanced Business Analytics: Creating Business Value from Your Data, Wiley
3. Multivariate Time Series Analysis: With R and Financial Applications, Ruey S. Tsay, Wiley
4. Applied Predictive Analytics: Principles and Techniques for The Professional Data Analyst by Dean Abbott
5. Predictive Marketing: Easy Ways Every Marketer Can Use Customer Analytics and Big Data by Omer Artun and Dominique Levin

## **BIG DATA ANALYTICS (Credits 3)**

### **Course Objective:**

- To understand the Big Data Platform and its Use cases
- To provide an overview of Apache Hadoop
- To understand Map Reduce Jobs
- To exposure Data Analytics with R.

### **Module 1: Introduction To Big Data And Hadoop**

Types of Digital Data, Introduction to Big Data, Big Data Analytics, History of Hadoop, Apache Hadoop, Analysing Data with Unix tools, Analysing Data with Hadoop, Hadoop Streaming, Hadoop Echo System, IBM Big Data Strategy, Introduction to Infosphere BigInsights and Big Sheets.

### **Module 2: HDFS(Hadoop Distributed File System)**

The Design of HDFS, HDFS Concepts, Command Line Interface, Hadoop file system interfaces, Data flow, Data Ingest with Flume and Scoop and Hadoop archives, Hadoop I/O: Compression, Serialization, Avro and File-Based Data structures.

### **Module 3: Map Reduce**

Anatomy of a Map Reduce Job Run, Failures, Job Scheduling, Shuffle and Sort, Task Execution, Map Reduce Types and Formats, Map Reduce Features.

### **Module 4: Hadoop Eco System**

Pig : Introduction to PIG, Execution Modes of Pig, Comparison of Pig with Databases, Grunt, Pig Latin, User Defined Functions, Data Processing operators.

Hive : Hive Shell, Hive Services, Hive Metastore, Comparison with Traditional Databases, HiveQL, Tables, Querying Data and User Defined Functions.

Hbase : HBasics, Concepts, Clients, Example, Hbase Versus RDBMS. Big SQL : Introduction

### **Module 5: Data Analytics with R**

Machine Learning : Introduction, Supervised Learning, Unsupervised Learning, Collaborative Filtering. Big Data Analytics with BigR.

### **References:**

1. Raj Kamal, Preeti Saxena, "BIG DATA ANALYTICS: Introduction to Hadoop, Spark, and Machine-Learning", McGraw-Hill Education 2019
2. Seema Acharya, Subhasini Chellappan, "Big Data Analytics" Wiley 2015.
3. Tom White "Hadoop: The Definitive Guide" Third Edit on, O'reily Media, 2012.
4. Jay Liebowitz, "Big Data and Business Analytics" Auerbach Publications, CRC press (2013)
5. Tom Plunkett, Mark Hornick, "Using R to Unlock the Value of Big Data: Big Data Analytics with Oracle R Enterprise and Oracle R Connector for Hadoop", McGraw-Hill/Osborne Media (2013), Oracle press.

## **BUSINESS INTELLIGENCE (Credits 3)**

### **Course Objective:**

- To introduce the concepts and components of Business Intelligence (BI).
- To identify the technological architecture that makes up BI systems

### **Module 1**

Business Intelligence - Introduction and Evolution, Business Intelligence Segments, Defining Business Intelligence Value Chain, Factors of Business Intelligence System, Realtime Business Intelligence, Business Intelligence Applications

### **Module 2**

Business Intelligence Types: Creating Business Intelligence Environment, Types of Business Intelligence, Business Intelligence Platforms, Roles of Business Intelligence in Modern Business

### **Module 3**

Business Intelligence Life-cycle: Introduction, Enterprise Performance Life Cycle (EPLC) Framework Elements, Life Cycle Phases, Transformation Roadmap, Building a transformation roadmap, BI Development Stages and Steps

### **Module 4**

Knowledge Management: Characteristics of Knowledge Management, Knowledge assets, Generic Knowledge Management Process, Knowledge Management Technologies

Data Extraction, Role of ETL process, Various data extraction techniques, Logical extraction methods, Physical extraction methods

### **Module 5**

Business Intelligence Issues and Challenges: Critical Challenges for Business Intelligence success, Cross-Organizational Partnership, Availability of Skilled Team Members, Business Analysis and Data Standardization, Importance of Meta-Data, Silver Bullet Syndrome, Customer Pain Points

### **References:**

1. Business Intelligence Guidebook: From Data Integration to Analytics by Rick Sherman
2. Business Intelligence Roadmap: The Complete Project Lifecycle for Decision-Support Applications by Larissa T. Moss and Shaku Atre
3. The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling by Ralph Kimball and Margy Ross
4. Successful Business Intelligence, Second Edition: Unlock the Value of BI & Big Data by Cindi Howson
5. Business Intelligence: Practices, Technologies, and Management, Rajiv Sabherwal, Irma Becerra-Fernandez



## **BI011 BUSINESS MODELLING USING R (Credits 3)**

### **Course objective:**

- To introduce business analytics, its tools and practices
- To provide hands-on exposure to Analytics using R programming.

### **Module 1: Introductions**

Introduction to Data Analysis and Business Intelligence. Introduction to R: Familiarization of R Studio, Basic Components in R Studio. R Syntax and programming - Variables & Operators, Vectors, Lists, Matrices, Arrays, Factors, Data Frames, Functions.

### **Module 2: Data cleansing and pre-processing**

Reading data using R - Basic read write operations, understanding exploratory functions to cover Summary & Structure of data, data behavioural description using measures of central tendency and measures of dispersion, Data Cleaning - handling messy data and missing data.

### **Module 3: Data Visualization**

Components of a good visualization, objective of visualizations, Basic charts and their purpose - pie, bar and histogram. Boxplot and its importance, Scatterplot and its importance. Understanding ggplot2 package, Understanding qplot and ggplot functions.

### **Module 4: Supervised learning models**

Family of Regressions: SLR, MLR and Logistic Regression Modelling - Concept -Building the model - Model diagnostics and evaluation.

Classification Models: Decision Tree; Concept - Building the model - Model diagnostics and evaluation. Random Forest; Concept - Building the model - Model diagnostics and evaluation.

Solving Business case using Regression and Classification Techniques.

### **Module 5: Unsupervised learning models**

Clustering: Clustering Concept - KMeans Clustering - Building the model - Model diagnostics and evaluation. Association Rules: ARM Concept - Apriori - Building the model - Model evaluation.

### **References:**

1. Camm, Cochran (2015) Essentials of Business Analytics, Cengage Learning
2. R for Data Science by Hardley Wickham & Garret Grolemond
3. Beginning R: The Statistical Programming Language by Mark Gardener
4. R for Everyone: Advanced Analytics and Graphics by Jared P. Lander
5. Machine learning using R by Dinesh Kumar

## **DATA MINING (Credits 3)**

### **Course objective:**

- To introduce data mining concepts to expose hidden patterns
- To provide hands-on exposure to data mining using Orange Tool.

### **Module 1: Introduction**

Data Warehousing, Multidimensional Data Model, OLAP Operations, Introduction to the KDD Process, Data Mining, Data Mining Functionalities, and Classification of Data Mining Systems. Data Preprocessing: Data Cleaning, Data Integration and Transformation, Data Reduction, Data discretization and concept hierarchy generation.

### **Module 2: Exploring Data and Visualization Techniques**

General Concepts, Techniques, Visualizing Higher Dimensional Data, Tools. Prediction: Linear Regression, Nonlinear Regression, and other Regression-Based Methods. A Case Study on Classification using Orange Tool

### **Module 3: Classification**

Classification by Decision Tree Induction: Decision Tree induction, Attribute Selection Measures, Tree Pruning. Bayesian Classification: Bayes' theorem, Naïve Bayesian Classification. K-Nearest Neighbour Classifiers, Support Vector Machine. Evaluating the performance of a Classifier. A Case Study on Classification using Orange Tool

### **Module 4: Cluster Analysis**

Basic Concepts and Algorithms. Cluster Analysis, Requirements of Cluster Analysis' Types of Data in Cluster Analysis. Partitioning Methods: k-Means and k-Medoids, CLARANS. Hierarchical Clustering. Density-based Clustering - DBSCAN, Grid based clustering-STING. A Case Study on Clustering using Orange Tool

### **Module 5: Association Analysis**

Basic Concepts, Efficient and Scalable Frequent Item set Mining Methods: Apriori Algorithm, generating association Rules from Frequent Item sets, Improving the Efficiency of Apriori. Evaluation of Association Patterns. A Case Study on Association using Orange Tool

### **References:**

1. Pang-Ning Tan, Michael Steinbach, Vipin Kumar, "Introduction to Data Mining".
2. Cameron Zak, "Data Mining Concepts and Techniques: Complete Guide to a Comprehensive Understanding of Data Mining".
3. Kris Jamsa, "Introduction to Data Mining and Analytics", Jones & Bartlett Learning LLC.
4. Data Mining Concepts and Techniques – Jiawei Han and Micheline Kamber, Second Edition, Elsevier
5. Making sense of Data: A practical guide to exploratory Data Analysis and Data Mining- Glenn J Myatt

## **EXPLORATORY DATA ANALYSIS USING EXCEL (Credits 3)**

### **Course Objectives**

1. Understand the basic principles of exploratory analysis
2. Derive insights from data using various visualisation techniques
3. Interpret the results of various exploratory analytical techniques
4. Evaluate various exploratory analytical approaches and select the most appropriate for the given problem

### **Module 1: Database Analytics**

Data Sets and Databases, Data Queries: Tables, Sorting, and Filtering, Sorting, Pareto Analysis, Database Functions, Data Validation Tools, Form Controls, PivotTables, PivotTable, Customization

### **Module 2: Data Visualization**

Creating Charts in Microsoft Excel, Column and Bar Charts Data Label and Data Table Chart Options, Line Charts, Pie Charts, Area Charts, Scatter Charts, and Orbit Charts, Bubble Charts, Combination Charts, Radar Charts, Stock Charts, Charts from PivotTables, Data Bars, Color Scales, Icon Sets, Sparklines

### **Module 3: Descriptive Analytics**

Cross-Tabulations, Descriptive Statistical Measures, Frequency Distributions and Histograms, Measures of Association

### **Module 4: Data Modelling and Distribution Fitting**

Outlier Analysis, Boxplots, Probability mass functions, Cumulative distribution functions, Comparing distributions, Modelling distributions

### **Module 5: Relationships**

Visualizing relationships, Scatter plot, Correlation analysis and simple linear regression models, Residual Analysis and Regression Assumptions, Multiple Linear Regression, Making predictions, Visualizing predictions

### **References**

1. Business Analytics, Methods, Models, and Decisions: James R. Evans University of Cincinnati, Third Edition
2. Business Analysis with Microsoft Excel, Fifth Edition, Pearson, Conrad Carlberg
3. Making Sense of Data I: A Practical Guide to Exploratory Data Analysis and Data Mining, 2<sup>nd</sup> Edition, Glenn J. Myatt, Wayne P. Johnson
4. Business Analytics for Decision Making, First Edition, Pearson, Regi Mathew
5. Think Stats: Exploratory Data Analysis, Second Edition, by Allen Downey

## **FINANCIAL ANALYTICS (Credits 3)**

### **Course Overview:**

This course introduces a number of financial analytic techniques. Students will be able to apply financial analytics in real-world situations. Students also explore techniques to analyze time series data and how to evaluate the risk-reward trade-off expounded in modern portfolio theory and introduction to algorithmic trading. This course also covers the basic understanding of Natural Language Processing (NLP) techniques in real finance decision-making.

### **Module -1**

Introduction to Financial Analytics: Need and Importance of Financial Analytics. Visualization of finance data: Candle Stick Chart - Waterfall Chart - Area Chart - Visual Finance using Matplotlib. Creating financial dashboards: Different types of Financial Performance Dashboards.

### **Module 2**

Forecasting Models in Practice- Moving-average model, Exponential Smoothing model, Autoregressive and Moving average models in forecasting. Introduction to Portfolio theory – Treynor, Sharpe, Jensen and Fama. Application of Portfolio Performance Measures using datasets. Introduction to Algorithmic Trading: Trend Following Strategy

### **Module 3**

NLP in Financial Markets- Text Analysis and Sentiment Analysis, text mining, and text clustering for financial prediction. NLP applications in various domains of finance.

### **Module 4**

Understand the meaning of a credit risk Generalize data preparation – preprocessing Apply specific models for decision making, Calculate expected losses

### **Module 5**

Fraud Detection and Bankruptcy predictions Altman Z score, Machine Learning and Deep Learning models for Fraud Detection

### **Reference textbook**

1. Python for Finance: Analyze Big Financial Data -Yves Hilpisch -O'Reilly Media-ISBN: 1491945281, 9781491945285
2. Python for Finance, Author(s):Yuxing Yan ,Publisher: Packt Publishing - ebooks Account, Year: 2014,ISBN: 1783284374,9781783284375
3. Security Analysis and Portfolio Management by Donald Fisher and Ronald Jordan
4. Jonathan B Berk, Peter M DeMarzo - Corporate Finance-Pearson (2017)

## **BI013 MACHINE LEARNING USING PYTHON (Credits 3)**

### **Course objectives:**

- To introduce Machine learning concepts, its tools and practices.
- To impart knowledge of programming.
- To provide hands-on exposure to Analytics using Python programming.

### **Module -1: Introductions:**

Introduction to Machine Learning, Basics of Python programming, installing and accessing necessary IDEs. Variables & Operators. List, Tuple and Dictionary. Python Functions. Introduction to NumPy and Pandas Packages, Data Frames.

### **Module -2 : Data cleansing and pre-processing:**

Reading and Writing Files, Handling Missing Data and outliers, Type conversions, Exploratory Data Analysis - Measures of Central Tendency & Measures of Dispersion.

### **Module -3: Data Visualization:**

Objective of visualizations, Basic charts and their purposes. Introduction to Matplotlib, Seaborn and Plotly packages. Creating plots using Matplotlib and seaborn plot functions.

### **Module -4 : Supervised learning models:**

Correlation, introduction to Family of Regression; Simple Linear Regression, Multiple Linear Regression, Logistic Regression, Decision Tree, Random Forest.

### **Module -5: Unsupervised learning models:**

Clustering-Introduction, K-Means Clustering, determining optimal number of clusters, Association Rules, Hyperparameter tuning using GridSearch CV

### **References:**

1. Python for programming by Wes McKinney
2. Python programming by Leonard Eddison
3. Python Machine learning by Liu, Yuxi (Hayden)
4. Machine learning using Python , by Manaranjan Pradhan and Dinesh Kumar
5. Datamining for Business Analytics in Python by Galit Schmueli

## **OPTIMIZATION METHODS IN MANAGEMENT (Credits 3)**

### **Course Objectives**

1. Introduces the theory, algorithms, and applications of optimization in Management.
2. Methodologies include linear programming, integer programming, network optimization, data envelopment analysis and neural networks that are critical for management students in logistics, manufacturing, transportation, marketing and finance applications.
3. Experience in algebraic modelling languages such as Julia, and tools such as R and TensorFlow.

### **Module 1: Optimization Methods**

Introduction to Optimization, Formulation of linear and non-linear programs, Visualization of Linear Programs, Simplex Method, Sensitivity Analysis and Shadow Price.

### **Module 2: Integer Programming**

Introduction to Integer Programming and Formulation, Branch and Bound Method, Cutting Planes Method.

### **Module 3: Network Optimization**

Concept of Network Flows - Shortest Paths, Maximum Flows, Assignment Problem, Minimum cost flows.

### **Module 4: Data Envelopment Analysis**

Decision-Making Unit, Measurement of Efficiency, Frontier Analysis, Output maximisation and Input minimization DEA models.

### **Module 5: Neural networks**

Importance of Neural Networks in Business Applications, Concept of Neuron with weights and biases, Perceptron Learning Rule, Steepest Descent Algorithm, Back Propagation Algorithm, Introduction to Deep Learning for Binary Classification.

### **References**

1. Network Flows Theory, Algorithms, and Applications. Upper Saddle River, NJ: Prentice Hall, 1993 - Ahuja, Ravindra K., Thomas L. Magnanti, and James B. Orlin.
2. Machine learning for Beginners: The Definitive Guide to Neural Networks, Random Forests, and Decision Trees – Jennifer Grange
3. Data Envelopment Analysis – William W Cooper, Lawrence M Seiford, Kaoru Tone

### **Textbooks**

1. Operations Research: Applications and Algorithms – Wayne L Winston
2. Neural Network Design – Martin Hagan

## **RELATIONAL DATABASE MANAGEMENT & SQL FOR MANAGERS (Credits 3)**

### **Course Description:**

The course is designed to introduce students to the principles of Relational Database Management Systems (RDBMS) and Structured Query Language (SQL) in the context of business analytics. The course will cover the fundamentals of database design, normalization, data modeling, SQL data manipulation, and data query optimization. Students will learn to design, develop, and manage databases using RDBMS technologies, and will be able to write SQL queries to extract information from databases. The course is intended for MBA students specializing in Business Analytics who want to develop the technical skills necessary to manage and analyze business data.

### **Course Objectives:**

- To introduce the fundamental concepts of Relational Database Management Systems and Structured Query Language.
- To develop the skills necessary to design, develop, and manage databases using RDBMS technologies.
- To teach students how to write SQL queries to extract information from databases and analyze business data.
- To demonstrate the importance of data management and analysis in business decision making.

### **Module 1: Introduction to Relational Databases**

Introduction to Databases and DBMS, Introduction to Relational Databases, Relational Database Design, Relational Database Management Systems, Use cases of databases in business analytics

### **Module 2: SQL Fundamentals**

Introduction to SQL, Data Definition Language (DDL) Commands, Data Manipulation Language (DML) Commands, SQL Constraints

### **Module 3: Data Retrieval**

Data Query Language (DQL) commands, SQL Functions, SQL methods for: Grouping, Filtering and Sorting Data

### **Module 4: Advanced SQL Concepts**

Normalization, Joins and Subqueries, Set Operations, Views, Stored Procedures, Triggers

### **Module 5: Database Administration**

Data Control Language (DCL) Commands, Database Security and Integrity, Backup and Recovery, Performance Tuning, Data Warehousing and Business Intelligence,

### **References:**

1. Fundamentals of Database Systems, 7<sup>th</sup> Edition by Ramez Elmasri and Shamkant B. Navathe
2. Database Systems: A Practical Approach to Design, Implementation, and Management, 6<sup>th</sup> Edition by Thomas Connolly and Carolyn Begg

3. SQL Queries for Mere Mortals: A Hands-On Guide to Data Manipulation in SQL, 4<sup>th</sup> Edition by John L. Viescas and Michael J. Hernandez
4. Learning SQL, 3<sup>rd</sup> Edition by Alan Beaulieu
5. Database Systems: Design, Implementation, and Management, 13<sup>th</sup> Edition by Carlos Coronel and Steven Morris
6. Database Administration: The Complete Guide to Practices and Procedures, 2<sup>nd</sup> Edition by Craig S. Mullins



## **BI015 SOCIAL & WEB ANALYTICS (Credits 3)**

(Taught using R & Python Software)

### **Course objective:**

- To provide knowledge about various web concepts such as HTML.
- To provide hands-on exposure to effectively used social and web platform as a source of input for analytics.
- To impart knowledge of text analytics with respect to business problems.

### **Module 1: Social Network Analysis:**

Understanding Social Networks, Attributes of networks, nodes and edges, relationships in networks, betweenness and centrality, visualizing social network data.

### **Module 2: Introduction to Text Mining:**

Introduction to unstructured data, Text Analysis, Text cleaning and Processing - Sentence Segmentation tokenization - lemmatization - stemming - Parsing text - keywords

### **Module 3: Analysing Social media data:**

POS, Bag of Words Model, n-grams, Textual information to numerical vectors – TF and TF-IDF, Sentiment Analysis, Topic Modelling using LDA.

### **Module 4: Introduction to web analytics:**

Understanding Web Page layout, Introduction to Web Page Layouts, Understanding components of a web page, introduction to HTML, Understanding CSS

### **Module 5: Getting data using Web Scrolling:**

Understanding ‘rvest’ package. Extracting web data using ‘rvest’ package. Understanding ‘Beautiful Soup’ Library. Extracting data using ‘Beautiful Soup’ library, Regular Expression.

### **References:**

1. Reza Zafarani , Mohammad AliAbbasi – “Social Media Mining: An Introduction” – Published by Cambridge press
2. “Web Scraping with Python: Collecting Data from the Modern Web” : Ryan Mitchell
3. “Automated data collection with R” : Simon Munzert, Christian Rubba
4. Steven Bird, Ewan Klein and Edward Loper, ”Natural Language Processing with Python”
5. Markus Hofmann, Andrew Chisholm, "Text Mining and Visualization: Case Studies Using Open-Source Tools”, CRC press.

## **BI014 VISUALIZING DATA USING TABLEAU (Credits 3)**

### **Course Objectives:**

- Understand how visualization articulates desired information to the stakeholders
  - Derive insights from data using data visualization techniques
- Evaluate various visualization approaches and select the most appropriate for the given problem

### **Module 1: Introduction to Visualization**

Why do we visualize data? How do we visualize data? Preattentive attributes, Types of data

### **Module 2: Tableau Public Interface**

Installing Tableau Public, Tableau Public Interface – side bar, data pane, visual cues, analytics pane, menus and toolbars, canvas and column/ rows shelves, marks card, Show Me tool, Connecting to data – Data source user interface, pivoting data, filtering data, joining tables, Connecting to web-based data sources, Understanding Dimensions and Measures - Dimensions and Measures, Continuous and Discrete, Selecting aggregation types for measures

### **Module 3: Visualization using Charts, Graphs and Maps.**

Swapping and sorting, Types of visualization – Line graphs, Tables, Bar charts, Scatter plots, Pie charts, Tree map, Heat map, Geographic map – proportionate symbol maps, choropleth map, lollipop charts, Scenario analysis

### **Module 4: Calculations**

Creating calculated fields, Types of calculations, Number functions, Date functions, Type conversions, String conversions, Aggregate functions, Logic functions, Level of Detail and Table Calculations – Quick table calculations, Moving average, Editing table calculations, Ranking, Fixed LOD, INCLUDE and NESTED LOD calculations

### **Module 5: Developing interactive dashboards.**

Dashboard design – sizing and building, Adding and using filters – filters to worksheets, Quick filters to Dashboards, Arranging views to form stories, Developing and presenting stories.

### **Text book**

1. Tableau your data, Daniel G Murray

### **Reference books**

1. Learning Tableau by Joshua N Milligan
2. Communicating Data with Tableau: Designing, Developing, and Delivering Data Visualizations; Ben Jones
3. Mastering Tableau 2021: Implement Advanced Business Intelligence Techniques and Analytics with Tableau; Marleen Meier
4. Visual Analytics with Tableau; Alexander Loth

## GENERAL MANAGEMENT ELECTIVES

### GM007 ENTREPRENEURSHIP & FAMILY BUSINESS MANAGEMENT (Credits 3)

#### Course Objectives:

1. To understanding real life business situations and business practices.
2. To develop a competent entrepreneur and a successful business intrapreneur of tomorrow.
3. Understand the challenges of family businesses

#### Module 1

What is Entrepreneurship? Some Definitions. The Entrepreneurial Process, the Entrepreneurial Mind, Creativity and Innovation, Concepts of Entrepreneurship Development, Entrepreneur vs. Intrapreneur, Entrepreneurship and Small Business; Definition of Small Business; Similarities and Differences between Entrepreneurship and Small Businesses.

#### Module 2

Creating Entrepreneurial venture- Business Planning Process, Environmental Analysis - Search and Scanning, Identifying problems and opportunities, Defining Business Idea, Forms of business for entrepreneurs. Government policies and agencies relevant to new enterprises. Financing options. Angel investors and venture capitalists. Options available for raising overseas funding.

#### Module 3

Strategies for a new entrant from a strategic management perspective. New Enterprise Creation. Designing organizational structure & Systems. Growth; Evolution of strategy and structure in a growing business; five stages of growth; the characteristics of small business at each stage of development Business models and rapid growth strategies; Customer-centered growth strategies.

#### Module 4

Family Business; How they matter and how they differ; factors that make a family business; cultural configuration of a family business; Stages of development and keys to success of a family business. Management practices that enable a family business to function effectively; Issues in succession and transition planning; The long-term winners in the family business; The command, continuity, community, and connection - or “the four Cs – in family business; Managing for the long run.

#### Module 5

What really needs to be done to build a successful organization for the long-term Problems faced by entrepreneurs. Approaches to build a high-growth, long-term and sustainable firm. Diversifying outside the industry and market.

#### References:

1. Aulet, Bill. *Disciplined Entrepreneurship: 24 Steps to a Successful Startup*. Wiley, 2013.
2. Coulter, Mary. *Entrepreneurship in Action*. Prentice-Hall, 2001.
3. Stephen Spinelli . *New Venture Creation: Entrepreneurship for the 21st Century* 2012
4. Kidder, Tracy. *The Soul of a New Machine*. Avon Books, 1990
5. Christensen, Clayton, and Michael Raynor. Chapter 2, "How Can We Beat Our Most Powerful Competitors." In *The Innovator's Solution: Creating and Sustaining Successful Growth*
6. Osterwalder, Alexander, and Yves Pigneur. *Business Model Generation*. John Wiley and Sons, 2010.

## **INTRODUCTION TO PUBLIC POLICY (3 Credits)**

### **Course Overview**

Public policy involves decision-making that is constrained by complex interactions between political preferences, embedded institutions, and limited resources. In this course students will learn the policy process and the basics of decision-making in the process, become aware of the institutional and values-based constraints that affect policy outcomes, and understand strategies to influence all phases of the policy process. The course is structured to progressively take students through various aspects of policy understanding, policy making and policy implementation.

### **MODULE 1: Introduction to Public Policy**

Definition of Public Policy, Policy analysis vs policy studies, Approaches to policy analysis, Approaches to policy studies, Policy cycle framework

### **MODULE 2: Policy Subsystem**

Institutions, Ideas, Actors, The political economic context, Policy making in a liberal democracy, International system and public policy, Policy subsystems, Policy regimes, Integrating institutions, ideas and actors

### **MODULE 3: Agenda Setting and Policy Formulation**

Agenda setting, Objective construction of policy problems, Subjective construction of policy problems, Modes of agenda setting, policy windows, policy monopolies. Policy formulation, Phases of policy formulation, Content and substance of policy formulation, Policy instruments, Categories of policy tools, Policy alternatives

### **MODULE 4: Decision making, implementation and evaluation**

Public policy decision making, The role of actors, Models of decision making, Rationalism, Incrementalism, Policy implementation, Implementation as policy design, Instrument choices, policy mixes, Implementation styles, Long term choice of instruments. Policy evaluation, policy learning, Positivist and post-positivist evaluation, Actors in policy evaluation, Types of policy evaluation, Policy feedback, policy termination.

### **MODULE 5: Change, Convergence and Failure**

Patterns of policy change, Policy succession, feedback and termination, Types of policy change, Punctuated equilibrium model of policy change, Policy convergence, policy failure

### **Readings**

- i) Studying Public Policy: Policy Cycles and Policy Subsystems by Michael Howlett, M Ramesh, and Anthony Perl
- ii) Public Policy: A New Introduction by Christoph Knill and Jale Tosun  
Handbook of Public Policy Analysis - Theory, Politics, and Methods by Frank Fischer, Gerald J. Miller, 1st edition, Routledge - 2017; eBook ISBN 9781315093192

## **SOCIAL ENTREPRENEURSHIP (Credits 3)**

### **Objective:**

This course will create an overview of entrepreneurship in general and social entrepreneurship (SE) in particular among students. Through this course, students will acquire a general understanding of academic theory related to social entrepreneurship and its practical implications. Additionally, they will understand the antecedents required for social-entrepreneurial thinking and action, which benefits all stakeholders. Students will be exposed to Indian context in social entrepreneurship and particularly the prevailing economic / political / social environment from a social enterprises perspective. Students will gain the knowhow to transfer the obtained knowledge to strategic issues in this sector.

### **Module 1**

Definitions and concepts of SE; Introducing the concept of Social Entrepreneurship - Social Entrepreneurship; A historical perspective - Historical tradition including inspiring examples - Social Entrepreneurship and for-profit setting - Concept of creating surplus (profit) and still having a social impact

### **Module 2**

Micro enterprises; viability and compatibility with social businesses - Micro finance, neighborhood groups, Kudumbashree ventures – Social Ventures; How to Identify Social Ventures Opportunity? – Concept of social gaps or/and opportunities - Changing mindsets of nonprofits and governments - Profit orientation for long-term viability of resource deployment - Fundraising in social ventures and non-profit ventures; Psychographics of a modern day donor! – Crowd funding for social ventures

### **Module 3**

Models of Social Entrepreneurship; Charity Model - Market Model - Policy Model - Grassroots Model - Funding Model - Education Model - Movement Model; Design thinking to solve social problems

### **Module 4**

Scalability of Social Businesses; BLITZSCALING - Person centric model to process centric model – Roadblocks for scaling in SE - Assessing social ventures; Measuring Social Impact – Concept of SIA (Social Impact Assessment)

### **Module 5**

Technology to solve Social issues; Marketing; Marketing and communication aspects involved with social enterprises – Changemakers; “Everyone a Changemaker” – Hybrid Value Chains – Concept of Economic Citizenship,

### **Proposed Textbook / Readings**

1. Social entrepreneurship / edited by Johanna Mair, Jeffrey Robinson & Kai Hockerts, Palgrave McMillan, 2006

Assorted readings in the course pack

## **GM009 MANAGING BUSINESS IN EMERGING MARKETS (Credits 3)**

This course analyses emerging markets, focusing on the global emergence of these markets in the past three to four decades, which has brought about a paradigm shift in the international business landscape. The course specifically examines the BRIC economies (Brazil, Russia, India and China), key characteristics of these markets, the opportunities and challenges that multinationals face when doing business and investing in these markets. It will enable students to assess these emerging markets to develop a comparative perspective, evaluate potential entry strategies and subsidiary operations of firms competing in these economies.

### **Module 1**

Introduction to Emerging Markets, institutional environments in emerging markets, institutional voids, role of culture and ethics, risks and opportunities in emerging markets, introduction to BRIC countries & large emerging markets (LEMs).

### **Module 2**

India & Brazil – key characteristics of the market, evaluation of the markets, understanding the MNCs operating in such markets, influence of state, social networks & relationships, trade zones & agreements, international relations

### **Module 3**

China & Russia - key characteristics of the market, evaluation of the markets, understanding the MNCs operating in such markets, influence of state, social networks & relationships, trade zones & agreements, international relations

### **Module 4**

Multinationals from emerging markets, multinationals from developed countries competing in emerging markets, strategies to compete in emerging markets, entry strategies for emerging markets, state owned businesses

### **Module 5**

Other emerging markets – South Africa, Turkey, Mexico, Indonesia & assorted readings.

### **Reference Books**

- T. Khanna, K. G. Palepu. Winning in Emerging Markets. Harvard Business Press.

### **Additional Reading**

1. Yadong, Luo. Multinational Enterprises in Emerging Markets. Copenhagen Business School Press.
2. Enderwick, P. Understanding Emerging Markets: China and India, Routledge
3. Jansson, H. International Business Strategy in Emerging Country Markets: The Institutional Network Approach. Edward Elgar Publishing
4. Julian, Marr and Cherry, Reynard. Investing in Emerging Markets: The BRIC Economies and Beyond. Wiley.

## INNOVATION SAFARI (3 credits)

### Course Overview

For a business school to create rounded professionals who are industry ready, we need to provide both domain functional knowledge courses as well as perspective building courses. This introductory course would serve the purpose of perspective building towards innovation management. This course needs more emphasis on experiential learning and hence would be implemented as a field course.

This course equips students to appreciate and understand the process of innovation. Through this course they will understand the meaning of innovation and innovation management and how innovations diffuse in society. It also introduces the concept of strategic innovation and implementing the same.

### Module – 1

**Basic Innovation Management Concepts:** New product, new method, or new material based innovation; Product, service and process innovation; Incremental and radical innovations; Adoption lifecycle; Innovation adoption at individual level.

### Module -2

**Strategy - Innovation as Strategy:** Innovation strategy in an ever-changing world; Strategy - Portfolio Management; Protecting intellectual property; Tools for portfolio management

### Module – 3

**Execution - Implementing Innovation as process:** Stage gate model; Managing innovation projects; Teams, social networks and innovation; How teams contribute to innovations; Effect of social network structure;

### Module – 4

Digital Innovations, Platform and pipeline business models, Future of businesses in the innovation driven world.

### Module – 5

**Field Trips** – 3 field trips one each for Agri based innovations (trip to KAU head quarters & College of Agri. Engg. Tavanur), Tech innovations (trip to Startup Village), Grassroots Innovations (trip to Kuttanad)

### Course Textbooks

- Innovation Management (3rd Edition) Effective strategy and implementation by Keith Goffin, and Rick Mitchell.
- Text book by Burgelman (Stanford) - "Strategic Management of Technology and Innovation"
- Bianco, C. (2018). *Innovation management*. Springer.
- Valtorta, K. (2017). *Innovation management*. Wolters Kluwer.
- Goffin, K., & Mitchell, R. (2021). *Innovation management: Effective strategy and implementation*. Bloomsbury Academic.

Assorted readings to be scouted from various research articles, textbook chapters and online blogs (*to be compiled and distributed by the course instructor before commencement of course*)

Annexure:

Individual dynamics and Leadership renamed to Individual and Interpersonal Dynamics

Dropped Management Information System and introduced 'Technologies and Digital Transformation of Business' instead of it

Name change for Group and Organization Dynamics as 'Leadership and Organization Dynamics'

Financial Management – 1 renamed as Fundamentals of Financial Management

Financial Management – 2 renamed as Corporate Finance

Legal Environment of Business moved to trimester 1

Strategic Management moved to trimester 3

New core paper Creative Problem Solving introduced in trimester 5

New core paper Ethics and Sustainability introduced in trimester 6