

MBA (Pharm.) Syllabus

Semester I

Sl No	Course Code	Course Name	Course Credit
1	PM-510	Pharma Sector & Management	2
2	PM-520	Managerial Accounting	2
3	PM-530	Managerial Computing	2
4	PM-540	Pharma Sector Business Environment	2
5	PM-550	Probability and Statistics	2
6	PM-560	Managerial Economics	2
7	PM-570	Managerial Communication	2
8	PM-580	Pharmaceutical Marketing Management	3
9	PM-590	Operations Management	3
10	PM-511	Field Posting and seminar	2
	Total		22

Semester II

Sl No	Course Code	Course Name	Course Credit
1	PM-610	Business Research Methods	3
2	PM-620	OB & HRM	3
3	PM-630	Management Information Systems	2
4	PM-640	Data science and analysis	2
5	PM-650	Pharmaceutical Advertising and Sales Promotion Management	2
6	PM-660	Intellectual Property Rights in Pharma	2
7	PM-670	Financial Management	3
8	PM-680	Ethical Issues in Pharmaceutical Management	1
9	PM-690	Regulatory affairs in pharmaceuticals	2
10	PM-611	Summer Internship	2
	Total		22

One full/half day in a week to be kept for guest lectures, industry interaction, field visits etc.

Semester III

SI No	Course Code	Course Name	Course Credit
1	PM-710	Project Management	2
2	PM-720	Strategic Management	3
3	PM-730	Creativity, Innovation and Entrepreneurship	3
4	PM-740	Disaster Management	1
5	PM-750	Principles of Epidemiology	1
6	PM-760	Quality Management in Pharmaceutical Operations	2
7	PM-770	International Business	3
8	PM-780	Pharmaceutical Brand Management	2
9	PM-790	Managing Self	2
10	PM-711	Supply Chain Management in Pharmaceutical Sector (Logistics Management is included in Supply chain management)	2
11	PM-712	Quantitative methods for decision making	2
12	PM-713	Individual Project	2
	Total		25

Semester IV

SI No	Course Code	Course Name Core Subjects (ALL COMPULSORY)	Course Credit
1	PM-810	Scouting and nurturing Innovations	2
2	PM-820	Contemporary Issues in Pharmaceutical Management	2
3	PM-830	Major Project (Thesis and viva) In Major Project (14 Weeks) 1 credit is 30 hours	15
4		Advance Electives Marketing/Data Analytics/Finance, HR, Strategy, Innovation Workshops to be offered in the domain of Marketing/ Financial Markets / HR& OB / Operations Management/ Strategy and Innovation & Entrepreneurship etc. Electives – 12 credits (Each elective is of 2 credit or 1 credit)	12
		Total	31

ELECTIVE SUBJECTS (12 Credits)			
Elective 1 –Marketing			
1.	MKT-01	Consumer Behaviour	2
2.	MKT-02	Customer Relationship Management	2
3.	MKT-03	Digital Marketing	2
4.	MKT-04	Marketing of Services	2
5.	MKT-05	Retail Management	2
		Total	10
Elective 2 - Data Analytics			
1.	DA-01	Big Data Analytics	2
2.	DA-02	Data Analytics with R	2
3.	DA-03	Marketing Analytics	2
4.	DA-04	Python for Managers	2
		Total	8
Elective 3 - Finance, Accounting, and Control			
1.	FAC-01	Behavioural Finance	2
2.	FAC-02	Corporate Governance	2
3.	FAC-03	Mergers, Acquisitions & Corporate Restructuring	2
4.	FAC-04	Strategic Financial Management	2
		Total	8
Elective 4 - Human Resources			
1.	HR-01	Talent Management and Competency Mapping	2
2.	HR-02	Compensation Management	2
3.	HR-03	Learning & Development	2
4.	HR-04	Managing Across Culture	2
5.	HR-05	Strategic HRM	2
6.	HR-06	Talent Management and Competency Mapping	2
		Total	12
Elective 5 - Business Strategy			
1.	BS-01	Strategic Alliance	2
2.	BS-02	Strategic Consulting	2
3.	BS-03	Strategy Simulation	2
		Total	6
Elective 6 - Quantitative Management and Operations Management			
	QM-01	Strategic Sourcing for Competitive Advantage	2
		Total	2
Elective 7 – Innovation & Entrepreneurship			
1	EDI-01	Innovation and Entrepreneurial Strategy, Technology-Based Entrepreneurial strategy	1
2	EDI-02	Start-ups, New Venture Creation, Co-Creating Value	1
3	EDI-03	Innovation and Productivity, Social Entrepreneurship	1
		Total (III + IV)	56
		Total (I+II+III+IV)	100

	Semester I		
Course Code	CourseName	Focus	Indicative contents to be covered
PM-510	Pharma Sector & Management (2credit)	The focus of this course is to provide an overview of Pharma Sector and managerial issues faced by Pharma sector managers. In this course, practicing managers will be invited to share details about their work and organization.	Overview of the way in which Pharma sector is organized Difference types of organizations and work done by the the pharma sector Managerial Challenges faced by the Pharma sector managers.
PM-520	Managerial Accounting(2 credit)	The focus should be on introducing the concepts of accounting and their use as a management lever.	Basic accounting: Micro-and Macro-economics. Concepts and conventions underlying preparation of financial statements; Accounting equations; Accounting Processes and accounting policies; Revenues and costs matching and inventory valuation; Preparation of final accounts; Trading account, profit and loss account, balance sheet. Depreciation accounting; Intangible assets accounting. Understanding published annual reports including funds flow statement. Accounting for price- level changes and human resources. Social and environmental accounting. Basic cost concepts: Cost drivers, how and why costs are classified. Systems of cost determination. Cost analysis for decision - making; Marketing and production decisions like deletion or addition of products, optimal use of limited resources, pricing, make or buy, joint product costs etc. Cost analysis for control: Standard costing; Variances materials, labour, overheads, sales and profits, budgeting and control; Budget Preparation including master budget and zero-base-budgeting. Contemporary issues in management accounting; Value chain analysis, activity based costing, quality costing, target and life cycle costing.

			<p>Foreign collaboration and Indian business, on resident Indian and corporate sector, World Bank, IMF policies and India, trade barriers, foreign trade policies, the technological environment in India, policy for research and development, technology and economic development, appropriate technology and problems of technology transfer.</p> <p>4. Ethics, consumers right, consumerism and business.</p>
PM-550	Probability and Statistics (2credit)	<p>Focus should be on making participants understand the basis of probability and statistics. These concepts will be used in Operations Management and Quantitative methods for decision making</p>	<p>Frequency distribution; Graphical representations; Measures of central tendency (mean, median, mode, quartiles etc.); Measure of dispersion (range, variance, standard deviation). Probability- introduction ideas (probability rules, statistical independence, statistical dependence, joint probability, marginal probability). Notion of random variable expectation.</p> <p>Discrete distribution- Binomial, Poison.</p> <p>Continuous distribution-normal, exponential, uniform, Delete this.</p> <p>Sampling design: sampling Delete error, random sampling, systematic sampling, sampling with probability proportions of size, stratified sampling, cluster sampling and multistage sampling. Estimation- point estimation and interval estimation. Hypothesis testing- one sample test, two sample test, z-test, Chi Square test..</p> <p>Simple regression and correlation: Estimation using regression line. Correlation analysis. Introduction to multiple and partial correlation. Time series- variations in time series, trend analysis, cyclical variation, seasonal variation, irregular variation. Index numbers-unweighted aggregates index, weighted aggregates index. Average of relative methods, quantity and value indices.</p>
PM-560	Managerial Economics (2credit)	<p>The focus should be on Teaching micro and Macro economics with</p>	<p>1.The nature and scope of managerial economics, economic theory and managerial economics. Managerial economist's role and Responsibilities. The demand theory and analysis. The determinants of demand. Demand elasticities - price, income, cross; Using elasticities in managerial decision making.</p>

		<p>relevance to the Pharma managers</p>	<p>2.The theory of consumer choice. The cardinal utility approach. The indifference curve approach. The revealed preference and the theory of consumer choice under risk.</p> <p>3. The production theory and estimation. The production function. Production with one and two variable inputs. Three stages of production. Economics of state and scope. Estimation of production function. The Cob Douglas and CES function. Use of time-series. The cost theory and estimation. The economic concept of cost. The short and long run cost functions. Theories of cost. Estimation of cost functions.</p> <p>4.Market structure and degree of competition. Perfect competition. Profit-maximizing output in the short and long run monopoly. Profit-maximizing price and output in the short run and long run. Monopolistic competition. Price and output determination in short and long run. Product variation and selling expenses behavior</p> <p>5. Oligopoly: Characteristics, price rigidity, inter-dependence. The Cournot Model, Cartels and Collision. Price leadership. The behavior theory of the firm and managerial theory of the firm.</p> <p>6.Price Practices: Pricing under multiple products, price discrimination. International price discrimination and dumping. Transfer pricing.</p> <p>7.The theory of distribution. Determination of factor prices, rent, wages, interest and profit.</p>
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PM-570	Managerial Communication (2credit)	<p>The focus should be on making participants understand the process of managerial communication and decision making. This course should aim at making students understand how to write managerial reports, memos, letters, press release etc. The course should also help in sharpening participant's skills for communication for business managers, for e.g. giving presentations, interviews, meetings etc.</p>	<p>Principles of and Barriers to Communication, Listening and Feedback, Communicating Across Cultures, persuasion, Interviews (both giving and taking interviews), Business Presentation, Meetings & Group Discussions, Making effective phone calls and writing emails, online communication in a professional context, Conducting productive meetings, future trends in professional communication Introduction to the purpose of writing managerial reports, memos, letters, press release etc. Introduction to the stages of formal managerial decision-making process - situation analysis, options generation, identification of criteria, and systematic evaluation of options leading to a recommendation. Use of case studies, caselets etc. to make students write managerial reports, memos, letters, press release etc.</p>
PM-580		<p>The focus should be on providing understanding of marketing management in pharmaceutical domain</p>	<p>Marketing tasks and philosophies: Marketing systems and pharma marketing environment, Consumer Pharmaceutical market and buyer behaviour. Strategic marketing process: market segmentation, market measurement and forecasting. Strategic planning in pharma marketing: Situation analysis, developing marketing objectives; Determining positioning and differential advantage, selecting target markets designing marketing mix for target market. Product decisions: Product classification, product life-cycle strategies, Branding, packaging and labeling. Pricing decisions: Pricing methods and strategies. Distribution decisions: Importance and functions of distribution channels, distribution channel members. 9. Promotional Decisions: Promotion mix elements.</p>

PM-590	Operations Management (3credit)	The focus should be on making participants understand the transformation processes and management of shop-floor of a pharmaceutical manufacturing company	Product Design Process, Economic Analysis of Product Development Process, transformation processes and Operations Strategy for Business Excellence. Quantitative techniques and softwares Facility Location and Layout Planning, Facility Location Planning, Factor & Location Ratings, Operations Scheduling in manufacturing, R&D, Quality context. Inventory Management models, Types of inventory, Selective Inventory Control: ABC, VED, FSN Analysis; Q and P Models, Economic Order Quantity model with safety stock Process Analysis, Process redesign using BPR, Capacity analysis, optimization of profits Regulatory approval planning
PM-511	Field posting (2 credit) (For eg. In pharma companies, pharmacy section of hospitals, Pharma retailer/distributor, windshield tour of pharma parks, api pharma companies, biotech companies, cro companies, formulation companies, drug discovery companies, data analytics clinical trial companies, bioequivalence centres etc) of students for 2 weeks.– In this component, participants should get an exposure of how things are being carried out in practice, should related the practice with things covered in class. At the end of field posting, participants make a public seminar for evaluation purpose.		

Semester II

PM-610	Business Research Methods (3 credit)	The focus should be to provide an understanding of research methods for business managers. Participants need to know this before going for internship.	<p>Role of Business Research. Nature, Scope and Type of Research</p> <p>Introduction to qualitative research; Overview of qualitative research methods, Qualitative research tools and fieldwork, Qualitative analysis and reporting</p> <p>Principles of quantitative research</p> <p>Types of Research Design</p> <p>Formulating Research Problem, Review of secondary data, Secondary data collection method, Key Word Search using search engine</p> <p>Qualitative data collection and analysis, coding, theme generation,</p> <p>Quantitative data collection and analysis</p> <p>Defining variables, Operationalizing construct, Types of Scales, Comparative and Non-comparative Scaling techniques, Questionnaire Design and use of tools such as Google Docs/Survey Monkey etc, Measuring Reliability and validity of Construct, Data Preparation Editing and Coding, Choosing appropriate Statistics and making inferences</p> <p>Individual project focused on application of market forecasting/assessment/drug pricing analysis/Marketing and promotional effectiveness assessments/Consumer Behaviour etc</p>
PM-620	OB & HRM (3credit)	The focus should be on making participants understand Organization Behaviour & Human Resource Management and associated challenges in Pharma sector	<p>Foundations of organisational behaviour: Understanding behaviour in organisations, OB models</p> <p>Introduction to Individual.</p> <p>Motivation: Needs, contents and processes; Maslow hierarchy of human needs, Herzberg two factor theory of motivation, Vroom expectancy theory.</p> <p>Group processes</p> <p>Importance of values: Types of values, attitudes and consistency (cognitive dissonance theory).</p> <p>Group dynamics and teams.</p> <p>Leadership: Trait theories, behavioural theories, Ohio state studies, University of Michigan studies, the managerial grid, contingency theories; Hersey and Blanchard situational theory and path goal theory.</p> <p>Transactional analysis.</p> <p>Organisational culture: What is organisational culture, what does cultures do, creating and sustaining culture, how employees learn culture.</p> <p>Organisational change: Forces of change, resistance to change, approaches to managing organisational change.</p> <p>11. Conflict management: Transitions in conflict</p>

			<p>thought, functional Vs dysfunctional conflict, the conflict process.</p> <p>Introduction to HRM and its strategic importance</p> <p>Recruitment and Selection</p> <p>Developing People in organization</p> <p>Performance Management Systems, Compensation and Reward Management, Appraisal,</p> <p>Leadership Development, Succession Planning, Ethical issues in HRM</p>
PM-630	Management Information Systems (2credit)	The focus should be on making participants understand the use and management of information technology in the Pharmaceutical sector	<p>Analysis of Information System Requirements</p> <p>Process Modelling, Examining Business Processes</p> <p>Developing IS/IT Architecture, IT Implementation</p> <p>Understanding Causes of IS Failures</p> <p>Knowledge management, ERP, Social Networking, Strategic IT Transformation.</p>
PM-640	Data science and analysis (2credit)	The focus of this course will be on making students familiar with the use of tools and techniques to derive information from large data sets.	<p>Basics of Data,</p> <p>Data Modelling, Data visualization, data mining, unstructured data analytics and machine learning,</p> <p>Data Warehouse & BI Systems, Cloud computing and big data,</p> <p>Bioinformatics and health informatics, and image analysis and application to analytics.</p>
PM-650	Pharmaceutical Advertising and Sales Promotion Management (2credit)	The focus should be on making participants understand how advertisement and sales promotion campaigns needs to be carried out, How to measure their impact etc.	<p>Sales promotion objectives, sales promotion in pharma sector; Advertising, personal selling, public relations and sales promotion of pharma products, sales promotion and consumer behaviour, Sales promotion budget, evaluation guidelines.</p> <p>Advertising objective, how advertisement works, budget allocation, Developing advertising objectives, Introduction to Integrated Marketing Communication (IMC), Consumer Behaviour & IMC, Media Strategy and Planning:- Media Plan, traditional Media Scheduling, Digital and Social Media Planning, Challenges in Advertising, Ethics of Advertising, creative strategy's Planning development execution and evaluation, Media evaluation,</p>
PM-660	Intellectual Property Rights in Pharma (2credit)	The focus should be on making participants understand IPR and its details in pharma domain	<p>IPR fundamentals: IP vs conventional property. Importance/role of IPRs in business management. Introduction to 8 different IP mechanisms, their characteristics, properties and business.</p> <p>IPRs in strategic business planning: Business implications and importance of various IP mechanisms, especially patents.</p> <p>Elements of national and international patent applications: Forms and formats. Drafting of patent applications; Fee, time schedules and related aspects. International patenting and</p>

			<p>introduction to PCT. Understanding patent lifecycle management.</p> <p>Patents as sources of technological jumps: Introduction to technology capture concepts in business development. Making use of technology tools in business globalization.</p> <p>Technology development organizations in India and abroad.</p> <p>Patent mapping: Introduction and practical utility in business development.</p> <p>International treaties-I: Introduction to TRIPS. Concept behind GATT/TRIPS. Emergence of WTO.</p> <p>International treaties-II: DOHA declaration and its significance for Indian pharma industry. Cancun agreement. WIPO and its role in IP promotion at global level. Development of human IPR resources for business management: Essential requirements, job profiles. Introduction to MIPC (Germany) and FPLC (USA). Role of AUTM, LESI. Practical tips for enhancing IP related qualifications for management professionals.</p> <p>Ethics in IP: Importance and need for training in ethics and values in the context of IPRs. Case studies.</p> <p>Case studies:</p> <p>Using patents as tools in strategic business planning.</p> <p>Drafting of technology offers and requests.)</p> <p>Generating an ICC (infringement clearance certificate) and Technology status report) GTSR d)</p> <p>Practical exercise on patent mapping.</p>
PM-670	Financial Management (3 credit)	<p>The focus should be on making participants understand the management of financial resources. This course will build on Managerial Accounting course covered in 1st Sem.</p>	<p>Corporate finance function: Concept, scope and its relationship with other functional areas.</p> <p>Sources of financial information, financial institutions and markets. Understanding financial statements - ratio analysis, cash flow statement, EVA, reporting on corporate governance. Present value – time value of money as basis of financial decision-making, mathematics of finance. Risk and return - concept of risk, relationship between expected return and risk, models for risk and return - CAPM, APT and multi-factor models.</p> <p>Investment decision making: Estimating free cash flows, cost of capital decision rules, capital budgeting rules to projects when facing capital rationing constraints. Capital structural planning - operating and financial leverage; Capital structure theories and value of firm; Capital structure planning and policy; Cost of capital, capital structure and value of firm.</p> <p>Financing decision: Hybrid securities namely convertible and non-convertible debentures, deep discount bonds, warrants, secured premium notes. Asset-based financing - leasing, hire purchase. Dividend policy-dividend theories,</p>

			<p>determination of dividend policy, share buyback, retention of profits, dividend policy studies in India.</p> <p>Venture capital financing: Concept, developments in India, process and debt securitization.</p> <p>Working capital estimation and management: Operating cycle concept, managing cash and cash equivalents, managing inventory, managing accounts receivables, managing payables</p> <p>Working capital financing-trade credit, bank finance, commercial paper, factoring, money market structures and recent developments.</p> <p>Valuation of M & A projects: Economics of M&A , methods of valuation -NAV,PECV, MPS,EPS.</p> <p>Corporate strategy, financial policy and shareholder value creating: Link between corporate strategy and financial strategy, implications for capital structure, dividend policy and capital budgeting policy of each corporate strategy.</p>
PM-680	Ethical Issues in Pharmaceutical Management (1credit)	<p>The aim would be to make participants understand legal boundaries within which the pharma industry operates, and also to make them understand the ethical aspects of Managing pharma industry.</p>	<p>Social responsibility and managerial ethics, Improving ethical behaviour and ethical leadership, Ethical decision making and decision making process, Corporate social responsibility, Corporate Governance, Whistleblower and Whistle blower policy, managing diversity wrt gender, Sexual preference ,race ,ethnicity etc.</p>
PM-690	Regulatory affairs in Pharma (2 credits)	<p>This course is design to impart advanced knowledge and skills required to learn the concepts of generic drug and their development, various regulatory filing in different countries, Regulatory documents and filing process</p>	<p>Good manufacturing practice(GMP),Good laboratory practice(GLP),Good Automated laboratory practice (GALP), Good distribution practice (GDP),Quality management Documentation in pharmaceutical industry:EPDB,PDP,PDR.CoA,DMF Filing process: IND, NDA and ANDA</p> <p>Dossier preparation and submission Audits and inspections</p> <p>Product life cycle management</p> <p>Global regulatory strategies for pharmaceuticals</p> <p>Clinical trials protocols and procedures</p>
PM-611	2 month Summer Internship (2credit)		<p>Participants of the program will be placed in pharmaceutical organizations for 2 months. The purpose is to make participants understand the practice of management in Pharma companies and relate it to the learning's from class and vice versa. At the end of the internship, participants will make a presentation at the institute</p>

Core Subjects – Semester III

PM-710 Project Management (2 Credits)

Phases of project management, work breakdown structure (WBS), network arrow diagram. Measure of activity, Forward and backward pass Compilation, representation in tabular form, Slack, critical path probability of meeting the scheduled dates, PERT/CPM, crashing the network.

References:

Essential:

1. Project Management for the Pharmaceutical Industry by Laura Brown and Tony Grundy, Mr Tony Grundy, Ms Laura Brown · 2012.
2. Project Portfolio Management in Theory and Practice Thirty Case Studies from Around the World by Jamal Moustafaev · 2016.

Desired:

1. Portfolio, Program, and Project Management in the by Pete Harpum · 2011
2. Advances in Pharma Business Management and Research: Volume 1 by Lars Schweizer, Theodor Dingermann, Otto Quintus Russe · 2020

Reference papers:

1. Gray, R. M., Cook, M. B., Natera, M. T., Inglis, M. M., & Dodge, M. L. (2016). Project Management: The. In *Managerial Process*”, McGraw-Hill.
2. Schwalbe, K. (2009). *Introduction to project management*. Boston: Course Technology Cengage Learning.
3. Cleland, D. I., & King, W. R. (1988). Project management handbook. *New York: Van.*

Outcomes:

- The focus should be on making participants understand the application of tools and techniques (for e.g., Gantt chart, PERT/CPM, Crashing etc.) in managing a project.
- Practices interpersonal skills to manage the human resources of a project.
- Values and is committed to the roles and influence of the project manager, sponsor, and customer.
- Applies the PM processes to initiate, plan, execute, monitor and control, and close projects and to coordinate all the elements of the project.
- Manages projects effectively including the management of scope, time, costs, and quality, ensuring satisfying the needs for which the project was undertaken.
- Applies processes required to manage the procurement of a project, including acquiring goods and services from outside the organization.
- Manages project risk, including identifying, analysing and responding to risk.
- Analyses and manages stakeholder expectations and engagement to ensure a successful project outcome.
- Strategically applies project management practices in a variety of organizational and international settings.

PM-720 Strategic Management (2 Credits)
Introduction to Strategic Management Process
Assessment of company's external environment using PESTLE; Introduction to competitive analysis from industrial and organizational perspective; understanding Porter's 5 forces model and its application; Assessing the forces that drives the industry change
Assessing company's internal ability in terms of capability, resource and core competence; Analysing the internal ability of the organization using SWOT; value chain analysis Five Generic Strategies, Understanding the concepts of strategy and different types of generic strategy; Discussing Low-cost, Broad differentiation, Focused low-cost, Focused differentiation and Best cost-provider strategies with their indications; Identifying various factors that influence organization to adopt a particular strategy
Strengthening Company's Competitive Position, understanding various approaches to handle competition and respond to it; Discussing Blue-ocean strategy and development of niche; Analysing importance of timing of implementing strategic moves
Strategies concerning company's scope of work, understanding various approaches to expand scope of the organization- vertically or horizontally; identifying factors influencing mergers, acquisition, joint venture, strategic alliance or outsourcing decisions of the organization
Diversification as a business strategy, Analysing factors and causes of diversification of business in Pharma context; discussing the pros and cons of the same
Choice of strategy: Factors affecting choice of strategy - firms mission, environmental factors, firm's strengths and weaknesses, managerial attitudes towards risk, managerial power relationships
Organizational readiness for strategy adoption, implementation issues of strategy and assessing the readiness of an organization for change; Implementation of strategies: Leadership implementation, functional policy implementation, organizational implementation
Evaluation of strategy.

References:

Essential:

1. Strategic Management by Philip Sadler · 2003
2. Strategic Management by Garth Saloner, Andrea Shepard, Joel Podolny 2016

Desired:

1. Strategic management: A Conceptual Framework by Arabinda Bhandari · 2013
2. Strategic Management and Business Policy by C Appa Rao, B Parvathiswara Rao, K Siva Ramakrishna · 2009

Reference papers:

1. Ansoff, H. I., Kipley, D., Lewis, A. O., Helm-Stevens, R., & Ansoff, R. (2018). *Implanting strategic management*. Springer.
2. Rumelt, R. P., Schendel, D., & Teece, D. J. (1991). Strategic management and Economics. *Strategic management journal*, 12(S2), 5-29.
3. Bracker, J. (1980). The historical development of the strategic management concept. *Academy of management review*, 5(2), 219-224.

Outcomes:

- The focus should be on making participants understand the strategic choices that a pharma company can make to grow, and management issues surrounding these choices.
- Understand the strategic decisions that organisations make and have an ability to engage in strategic planning.
- Explain the basic concepts, principles and practices associated with strategy formulation and implementation.
- Integrate and apply knowledge gained in basic courses to the formulation and implementation of strategy from holistic and multi-functional perspectives.
- Analyse and evaluate critically real-life company situations and develop creative solutions, using a strategic management perspective.
- Conduct and present a credible business analysis in a team setting.
- Understand the crucially important role that the HRM function plays in the setting and implementation of an organisation's strategy.

PM-730 Creativity, Innovation and Entrepreneurship (3 Credits)
The concept of innovation, Defining innovation, Differences between invention and innovation, Product innovation and process innovation, Radical and incremental innovation
Technological innovation, commercial or organizational Innovation, Innovation indicators
<i>Myths of innovation and creativity</i> (The heroic innovator, the creative muse, the linear model of innovation, the inability of established businesses to be creative and innovative)
<i>The nature of ideas</i> (Idea generation, demand pull ideas, supply push ideas), <i>The complexity of ideas</i> (Simultaneous discovery, Recombination, Imitation, Innovation as design trade off, Creativity and Innovation as resourcing issues), <i>Creative practice</i> (Creativity as routine, Creativity and innovation as interaction and management, Design of organisations to foster innovation)
<i>Innovation as systems</i> (Innovation systems, jumping out of the system- breaking the rules of the game, Trajectories of resistance and transformation), <i>Responsible innovation and creativity</i> (Ethics of creativity and innovation, Ambiguity of novelty, Innovation and creativity as a force for good)
The Creative Process and Entrepreneurial Mind, The Entrepreneurial Process and The Entrepreneur, Innovation and entrepreneurship, The entrepreneur Profile analysis behaviour and motivations, The entrepreneurial ecosystem, Entrepreneurs and strategic decisions
Barriers to entrepreneurship, Intrapreneurial grid, Becoming an Intrapreneur
Major approaches to corporate entrepreneurship, Entrepreneurship competencies:
Phases in entrepreneurship, Meaning and evaluation, Community and entrepreneurship, Social determinants of entrepreneurial growth

References:

Essential:

1. CREATIVITY, INNOVATION AND ENTREPRENEURSHIP Effective Thinking Skills for a Changing World by Edward Lumsdaine, Martin Binks · 2016
Entrepreneurship and Small Business: Start-up. Growth and by Paul Burns·2010

Desired:

1. Innovation and Entrepreneurship by Peter Drucker · 2014
2. Desired- Entrepreneurial Development by S S Khanka · 2016

Reference Papers:

1. Windrum, P., & Koch, P. M. (Eds.). (2016). *Innovation in public sector services: entrepreneurship, creativity and management*. Edward Elgar Publishing.
2. Edwards-Schachter, M., García-Granero, A., Sánchez-Barrioluengo, M., Quesada-Pineda, H., & Amara, N. (2015). Disentangling competences: Interrelationships on creativity, innovation and entrepreneurship. *Thinking skills and creativity, 16*, 27-39.
3. Rank, J., Pace, V. L., & Frese, M. (2004). Three avenues for future research on creativity, innovation, and initiative. *Applied psychology, 53*(4), 518-528.
4. Paulus, P. B., & Nijstad, B. A. (Eds.). (2003). *Group creativity: Innovation through collaboration*. Oxford University Press.

Outcomes:

- To harness participant's potential to think of new ways of looking at complex problems, to apply innovative solutions, and develop entrepreneurial models.
 - Respond positively and effectively to problems in unfamiliar contexts.
 - Apply new ideas, methods and ways of thinking.
 - Engage with a range of stakeholders to deliver creative and sustainable solutions to specific problems.
 - Communicate effectively both orally and in writing.
 - Work effectively with colleagues with diverse skills, experiences and be able to critically reflect on own practice.
- Consider the ethical and environmental issues and responsibilities which managers take into account when making decisions.

PM-740	Disaster Management (1 Credit)
Understanding Disasters Understanding the Concepts and definitions of Disaster, Hazard, Vulnerability, Risk, Capacity – Disaster and Development, and disaster management.	
Types, Trends, Causes, Consequences and Control of Disasters Geological Disasters (earthquakes, landslides, tsunami, mining); Hydro-Meteorological Disasters (floods, cyclones, lightning, thunder-storms, hail storms, avalanches, droughts, cold and heat waves); Biological Disasters (epidemics, pest attacks, forest fire); Technological Disasters (chemical, industrial, radiological, nuclear) and Manmade Disasters (building collapse, rural and urban fire, road and rail accidents, nuclear, radiological, chemicals and biological disasters); Global Disaster Trends – Emerging Risks of Disasters – Climate Change and Urban Disasters	

Disaster Management Cycle and Framework Disaster Management Cycle – Paradigm Shift in Disaster Management Pre-Disaster – Risk Assessment and Analysis, Risk Mapping, zonation and Microzonation, Prevention and Mitigation of Disasters, Early Warning System; Preparedness, Capacity Development; Awareness During Disaster – Evacuation – Disaster Communication – Search and Rescue – Emergency Operation Centre – Incident Command System – Relief and Rehabilitation – Post-disaster – Damage and Needs Assessment, Restoration of Critical Infrastructure – Early Recovery – Reconstruction and Redevelopment; IDNDR, Yokohama Strategy, Hyogo Framework of Action

Disaster Management in India Disaster Profile of India – Mega Disasters of India and Lessons Learnt Disaster Management Act 2005 – Institutional and Financial Mechanism National Policy on Disaster Management, National Guidelines and Plans on Disaster Management; Role of Government (local, state and national), Non-Government and Inter-Governmental Agencies

Applications of Science and Technology for Disaster Management & Mitigation Geo-informatics in Disaster Management (RS, GIS, GPS and RS) Disaster Communication System (Early Warning and Its Dissemination) 12 30 Land Use Planning and Development Regulations Disaster Safe Designs and Constructions Structural and Non-Structural Mitigation of Disasters S&T Institutions for Disaster Management in India

References:

Essential:

1. Coppola D P, 2007. Introduction to International Disaster Management, Elsevier Science (B/H), London.
2. Manual on natural disaster management in India, M C Gupta, NIDM, New Delhi

Desired:

1. An overview on natural & man-made disasters and their reduction, R K Bhandani, CSIR, New Delhi
2. World Disasters Report, 2009. International Federation of Red Cross and Red Crescent, Switzerland.

Reference Papers:

1. Disaster Management Act 2005, Publisher by Govt. of India
2. Publications of National Disaster Management Authority (NDMA) on Various Templates and Guidelines for Disaster Management.

Outcomes:

- After learning the course, the students should be able to:
 - (a) Understand disasters, disaster preparedness and mitigation measures
 - (b) Understand role of IT, remote sensing, GIS and GPS in risk reduction
 - (c) Understand disaster management acts and guidelines along with role of various Stock-holders during disasters.

PM-750	Principles of Epidemiology (1 Credit)
FUNDAMENTALS OF EPIDEMIOLOGY - Tools of Epidemiology: measuring disease Frequency (Prevalence, incidence, morbidity rates, attack rates etc. - Historical aspects of Epidemiology and evolution - Definition and understanding - Natural history of disease - Survey methodology including census procedures and Sampling	
Distinguish the roles and relationships between epidemiology and biostatistics in the prevention of disease and the improvement of health. Modified drug behaviour.	
Compute basic descriptive statistics and explore data analytic methods.	
Demonstrate a basic understanding of epidemiologic methods and study design.	
Combine appropriate epidemiological concepts and statistical methods.	

References:

Essential:

1. Gordis, L. (2004). *Epidemiology*. Third edition. Philadelphia: Elsevier Saunders. (The second edition is also acceptable.)
2. Pagano, M. and Gauvreau, K. (2000). *Principles of Biostatistics*. Belmont, CA: Wadsworth

Desired:

1. Jekel's Epidemiology Biostatistics Preventive Medicine and Public Health, 5th Edition Authors: Joann G. Elmore & Dorothea Wild & Heidi D. Nelson & David L. Katz

Reference Papers:

1. Rothman, K. J., Greenland, S., & Lash, T. L. (Eds.). (2008). *Modern epidemiology*. Lippincott Williams & Wilkins.
2. Rothman, K. J. (2012). *Epidemiology: an introduction*. Oxford university press.

Outcomes:

After learning the course, the students should be able to:

1. Understand disease prevalence, epidemiology studies and Perform exploratory data analysis using descriptive statistics.
2. Evaluate morbidity and mortality using ratios, proportions, and rates.
3. Perform direct and indirect methods of adjustment of overall rates.

PM-760 Quality Management in Pharmaceutical Operations (2 Credits)
Concept of Quality, Dimension of Quality, Types of quality, Relationship between Quality & Cost, Relationship between Quality & Productivity, Benefits of Improving Quality, A Brief History of Quality
A Brief History of Quality and its relationships
Total Quality Management (TQM), Quality Function Deployment (QFD), House of Quality (HOQ), Stabilizing and Improving a Process with Control Charts
Kaizen, Quality Circles, Benchmarking, Taguchi's quality engineering,
Six Sigma, Just-in-Time, Lean Six-Sigma, 5S

References:**Essential:**

1. Quality Assurance and Quality Management in Pharmaceutical Industry by Y. Anjaneyulu, R. Marayya · 2020
2. Managing Quality by Mihaela Kelemen · 2018

Desired:

1. Quality Management by R. Panneerselvam, P. Sivasankaran 2020
2. Desired-Quality Management Demystified by Sid Kemp · 2019

Reference Papers:

1. Haleem, R. M., Salem, M. Y., Fatahallah, F. A., & Abdelfattah, L. E. (2015). Quality in the pharmaceutical industry—A literature review. *Saudi Pharmaceutical Journal*, 23(5), 463-469.
2. Chowdhary, B. V., & George, D. (2012). Improvement of manufacturing operations at a pharmaceutical company: a lean manufacturing approach. *Journal of Manufacturing Technology Management*.
3. Woodcock, J. (2004). The concept of pharmaceutical quality. *American Pharmaceutical Review*, 7(6), 10-15.

Outcomes:

- The focus of this course will be to provide details of tool and techniques that can be used for managing quality of operations in Pharma sector.
- Evaluate the principles of quality management and to explain how these principles can be applied within quality management systems.
- Identify the key aspects of the quality improvement cycle.
- To use appropriate tools and techniques for controlling, improving and measuring quality.
- Critically appraise the organisational, communication and teamwork requirements for effective quality management.
- Critically analyse the strategic issues in quality management, including current issues and developments.
- To devise and evaluate quality implementation plans.

PM-770 International Business (3 Credits)
Global trade, international trade theory, FDI and its political-economic dimensions.
Strategy of international business, organization of international business, entry strategy, strategic alliances.
Product: Identifying new products, international product planning, product design strategy, product elimination, adoption and diffusion of new products, branding strategies
Pricing an international product, transfer pricing
Exchange rates and its impact
Dumping and anti- dumping regulations.
Distribution strategies: Direct and indirect channels, factors affecting international channels, international channel management.
Promotion strategy in overseas markets: Perspectives of international advertising, standardization v/s localization, global media decisions, global advertising regulations, industry self-regulation
Factors affecting international trade, WTO/GATT, regional agreements commodity agreements, Dumping and anti- dumping regulations

References:

Essential:

1. International Business Management Succeeding in a Culturally Diverse World by Jeongho Choi, Kamal Fatehi
2. Advances in Pharma Business Management and Research: Volume1 by Lars Schweizer, Theodor Dingermann, Otto Quintus Russe · 2020

Desired:

1. Essential Management Skills for Pharmacy and Business Management by Titus De Silva · 2013.
2. Desired-The Personal MBA: A World-Class Business Education in a by Josh Kaufman · 2011

Reference Papers:

1. Wild, J. J., Wild, K. L., & Han, J. C. (2003). *International business* (p. 342). Upper Saddle River, NJ: Prentice Hall.
2. Feinberg, S. E., & Majumdar, S. K. (2001). Technology spillovers from foreign direct investment in the Indian pharmaceutical industry. *Journal of International Business Studies*, 32(3), 421-437.
3. Verbeke, A. (2013). *International business strategy*. Cambridge University Press.

Outcomes:

- The focus of this course will be on providing strategies and details for international trade by pharma companies.
- Explain business expansion abroad and key issues related to their operations in other countries.
- Compare and contrast cultures and societies globally using socioeconomic and cultural frameworks.
- Develop an entry strategy into other markets recognizing the nature of institutions and forces governing the process of globalization.
- Knowledge: Basic and broad knowledge in international business environment, strategies and management. Ability to apply concepts, principles and theories to simple business situations.
- Global Perspective: Awareness of the different thinking and viewpoints of diverse cultures.
- Awareness of the global business environment and its impacts on businesses.
- Practical Application: Use of excel tools in real world scenarios.

PM-780 Pharmaceutical Brand Management (2 Credits)
Branding and its potential within the pharmaceutical industry: History, meaning, need, importance,
Branding in pharmaceutical industry,
Building brand values and brand strategy, timing, patient power, Strategic brand management,
The valuation of pharmaceutical brand: Relevance of brand valuation to the pharmaceutical Industry, The value of a brand, The role of advertising in branding pharmaceuticals
Brand development, Trade mark and regulatory issues.

References:

Essential:

1. Brand Planning for the Pharmaceutical Industry by Janice MacLennan · 2017.
2. Essential-Building Global Bio brands: Taking Biotechnology to Market by Françoise Simon, Philip Kotler · 2003

Desired:

1. Brand Therapy: 15 Techniques for Creating Brand Strategy in by Brian D. Smit· 2020.
2. Star Brands: A Brand Manager's Guide to Build, Manage & by Carolina Rogoll 2015

Reference Papers:

1. Kapferer, J. N. (2012). *The new strategic brand management: Advanced insights and strategic thinking*. Kogan page publishers.
2. Keller, K. L., Parameswaran, M. G., & Jacob, I. (2011). *Strategic brand management: Building, measuring, and managing brand equity*. Pearson Education India.
3. Kapferer, J. N. (1994). *Strategic brand management: New approaches to creating and evaluating brand equity*. Simon and Schuster.

Outcomes:

- The focus of this course will be to provide details of tool and techniques that can be used for managing quality of operations in Pharma sector.
- This course enables students to learn about the basics of brand and development of brand of a product.
- Demonstrate knowledge of the nature and processes of branding and brand Management.
- Evaluate the scope of brand management activity across the overall Organisational context and analyse how it relates to other business areas.
- Appraise the key issues in managing a brand portfolio and making strategic Brand decisions.
- To formulate and justify brand development decisions.
- To analyse and discuss contemporary brand related problems and develop appropriate strategies and initiatives.

PM-790 Managing Self (2 Credits)
Understands own role and responsibilities of supervisor/manager in context of the organizational environment.
Recognizes own's supervisory leadership strengths and areas for development. Writing, Reading and listening Communications
Understands own work style preferences
Understanding own leadership abilities and preferences
Understanding own ability to handle stress and maintaining work-life balance

References:

Essential:

1. Self-management and Leadership Development by Mitchell Grant Rothstein · 2010
2. Managing Oneself by Peter Ferdinand Drucker · 2016

Desired:

1. Self-Leadership: The Definitive Guide to Personal Excellence by Christopher P. Neck, Charles C. Manz, Jeffery D. Houghton · 2016.
2. Managers Not MBAs: A Hard Look at the Soft Practice of by Henry Mintzberg-2005.

Reference Papers:

1. Townsend, A., Wyke, S., & Hunt, K. (2016). Self-managing and managing self: practical and moral dilemmas in accounts of living with chronic illness. *Chronic illness*, 2(3), 185-194.
2. Mobius, M. M., Niederle, M., Niehaus, P., & Rosenblat, T. S. (2011). *Managing self-confidence: Theory and experimental evidence* (No. w17014). National Bureau of Economic Research.
3. Hogg, M. A. (2009). Managing self-uncertainty through group identification. *Psychological Inquiry*, 20(4), 221-224.

Outcomes:

- This course will aim to help participants in knowing themselves better, making them understand who they, what appeals to them, and how they can manage themselves while working in an organizational context.
- Explore and increase awareness of how people and critical incidents in their life story have shaped their own personal values.
- Understand the role of character and virtues for a successful and meaningful life and increase awareness of their own personal character strengths.
- Increase awareness of personal values by exploring their balance of life priorities, their strategy for life, and their intended long-term goals.
- Improve capacity for setting and following up on a personal development goal with the help of a peer coach.
- Practice peer coaching skills.
- Improve capacity for communicating their life story and strategy for life.
- Increase capacity for self-questioning and discovering their own biases.

PM-711 Logistics & Supply Chain Management (2 Credits)
Key Drivers and enablers in Supply Chain Management, Supply chain components, SC Strategy, Measures of Supply Chain Performance
Planning - demand and supply in a supply chain. Comparison of Online and Store based supply chain Models, Management of inventories in supply chain, Integrated Approach of SCM and Bull whip effect, Transportation.
network design in supply chain, Role of information technology in supply chain
Role of Logistics in supply chain.
Reverse Logistics, Networks in Reverse Logistics, Decision options in Reverse Logistics, Entities in Reverse Logistics, Small Intermediate logistics, Clinical trial Logistics

References:**Essential:**

1. Supply Chain Management in the Drug Industry Delivering Patient Value for Pharmaceuticals and Biologics by Hedley Rees · 2011.
- 2 The Supply Chain Management Casebook: Comprehensive Coverage by Chuck Munson 2013

Desired:

1. Supply Chain Management: A Global Perspective by Nada R. Sanders · 2011
2. Supply Chain Science books by Wallace J. Hopp · 2011

Reference papers:

1. Lambert, D. M., & Cooper, M. C. (2000). Issues in supply chain management. *Industrial marketing management*, 29(1), 65-83.
2. Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001). Defining supply chain management. *Journal of Business logistics*, 22(2), 1-25.
3. Croxton, K. L., Garcia-Dastugue, S. J., Lambert, D. M., & Rogers, D. S. (2001). The supply chain management processes. *The international journal of logistics management*, 12(2), 13-36.

Outcomes:

- This course will aim at helping participant to understand the concept of supply chain, and tools and techniques that can be used for strengthening the supply chain of Pharma companies.
- Identify and describe the critical aspects of chain management and explain the concept of and identify supply chain trade-offs.
- Analyse strategies and tactics for improving supply chain performance.
- Explain how supply chain management has a financial impact on companies
- Investigate current trends in supply chain management and explore how global and domestic issues impact the supply chain.
- Effectively balance supply and demand in a global setting.

PM-712 Quantitative methods for decision making (2 Credits)
Linear programming: Formulation of LPP
Graphical method, simplex method, duality
Transportation model
Least time transportation assignment model
TPT models- waiting line models, Integer programming.

References:**Essential:**

1. Quantitative Methods for Decision Makers 6th edition by Mik Wisniewski · 2016
2. Quantitative Methods: An Introduction for Business Management by Paolo Brandimarte · 2012

Desired:

1. Decision Quality: Value Creation from Better Business Decisions by Carl Spetzler, Hannah Winter, Jennifer Meyer · 2016.
2. Desired-Decision Analysis for Managers: A Guide for Making Better by David Charlesworth · 2013

Reference Papers:

1. Alwan, A. J., &Parisi, D. G. (1974). *Quantitative methods for decision making*. General Learning Press.
2. Edwards, W. (1954). The theory of decision making. *Psychological bulletin*, 51(4), 380.
3. March, J. G. (1994). *Primer on decision making: How decisions happen*. Simon and Schuster.

Outcomes:

- This course will focus on introducing participant to the quantitative methods (for e.g., linear programming, Integer programming etc) that can be used for decision making by managers in Pharma sector.
- Describe the problem-solving process and the role of quantitative analysis and fundamental statistical terms.
- Describe tools and techniques used in model building, their underlying concepts, assumptions, capabilities and limitations.
- Discuss possibilities of articulating these tools and techniques in integrated approaches to problem solving.
- Recognize critical factors in a problem and develop a tree structure for analysing problems.
- Carry out a cogent quantitative analysis at descriptive statistics level.
- Present the analysis and insights on a problem to interested parties in a convincing, non-technical manner.

PM-713	Individual Project (2 Credits)
Problem statement	
Literature Review, Objectives	
Questionnaire Design	
Data Analysis	
Findings Conclusion, Suggestions	

References:

Various Pharma Market Data bases like IPSOS, Global Market Insights, E&Y, B&G etc

Outcomes:

As a part of Individual Project, students will be required to take up a project in any area of management under the guidance of a faculty.

Core Subject & Electives - Semester IV

PM-810 Scouting and nurturing Innovations (2 Credits)
Source of innovation, mechanism for identifying innovations
Nurturing Creativity and Innovation in The Workplace, nurturing a Culture of Innovation, nurturing innovative employees
Open innovation
Empowering and incentivizing employees to think like an innovator, tracking and measuring innovation progress
Innovation implementation system

References:

Innovations done by various Pharmaceutical, Science and Technology companies.

Research Papers:

1. Kohler, T. (2016). Corporate accelerators: Building bridges between corporations and startups. *Business Horizons*, 59(3), 347-357.
2. Chiaroni, D., Chiesa, V., & Frattini, F. (2011). The Open Innovation Journey: How firms dynamically implement the emerging innovation management paradigm. *Technovation*, 31(1), 34-43.
3. Davila, T., Epstein, M., & Shelton, R. (2012). *Making innovation work: How to manage it, measure it, and profit from it*. FT press.

Outcomes:

- This course will focus on providing participants an exposure on how to scout for innovations and how the innovations can be nurtured.
- Self-Awareness, Personal Development, and Life Skills.
- To improve Leadership and Communication.
- To build Social Justice and Responsibility.
- To take responsibility.
- To think critically.
- To practice creativity.

PM-820 Contemporary Issues in Pharmaceutical Management (2 Credits)
Contemporary Issues in Pharmaceutical Marketing, policies etc,
Uniform Code of Pharmaceuticals
Marketing Practices ("UCPMP Code")
E-Detailing, E-Branding, Direct to consumer
Integrated communication, Good marketing Practices

References:

Latest data from IQVIA, Cmarc, AIOCD Awacs

Outcomes:

- In this course, those crucial topics that are emerging in pharma domain but not covered in the curriculum will be taught.
- To implement and evaluate an innovative approach to pharma industry.
- To make students think critically about contemporary pharma issues.

- To try and solve the contemporary pharma issues.
- To learn about the current marketing issues.
- To follow good marketing practices.
- To implement and evaluate an innovative approach to a pharmacy seminar course intended.

PM-830 Major Project (15 Credits)
Problem statement
Literature Review, Objectives
Questionnaire Design
Data Analysis
Findings Conclusion, Suggestions

References:

Various Pharma Market Data bases like IPSOS, Global Market Insights, E&Y, B&G
Etc

Outcomes:

As a part of major Project, students will be required to take up a project in any area of management under the guidance of a faculty or in industry.

Elective Subjects

Semester IV

MKT-01 Consumer Behaviour (2 Credits)
Input-Process-Output Model, Nicosia Model, Howard Sheth Model, Engel-Kollat-Blackwell Models of Consumer Behaviour, Internal Influences: Motivation, Personality, Perception, Learning, Attitude, Communications, External Influences: Social Class, Culture, Reference Groups, Family members.
Levels of Consumer Decision Making – Consumer Buying Decision Process
Complex Decision Making or Extensive Problem-Solving Model, Low Involvement Decision Making or Limited Problem-Solving Model, Routinized Response Behaviour, four views of consumer decision making.
On-line Decision Making: Meaning & Process/Stages Situational Influences- Nature of Situational Influence (The communication Situation. Consumer Surveillance
The Purchase Situation, The usage situation, The disposition situation) Situational Characteristics and consumption behaviour (Physical features, Social Surroundings, Temporal Perspectives, Task Definition, Antecedent States

References:

Essential:

1. Social and Behavioral Aspects of Pharmaceutical Care by Mickey C. Smith, Albert Wertheimer · 1996.
2. Cases in Health Care Marketing by John L. Fortenberry · 2010

Desired:

1. Consumer Behaviour and Advertising Management by Matin A. Khan · 2007
2. Desired-Decoded: The Science Behind Why We Buy by Phil P. Barden · 2013.

Reference Papers:

1. Solomon, M., Russell-Bennett, R., &Previte, J. (2012). *Consumer behaviour*. Pearson Higher Education AU.
2. Dennis, C., Merrilees, B., Jayawardhena, C., & Wright, L. T. (2009). E-consumer behaviour. *European journal of Marketing*.
3. Schütte, H., &Ciarlante, D. (2016). *Consumer behaviour in Asia*. Springer.

Outcomes:

- Understanding consumer behaviour, roll of research in understanding consumer behaviour, Models used to study consumer behaviour, influences of motivation, personality, perception, Cues, Response, Reinforcement, Marketing Applications of Behavioural Learning Theories, attitude, persuasive communication, culture, subculture on consumer behaviour.
- Identify the major influences in consumer behaviour.
- Distinguish between different consumer behaviour influences and their relationships.
- Establish the relevance of consumer behaviour theories and concepts to marketing decisions.
- Implement appropriate combinations of theories and concepts.
- Recognise social and ethical implications of marketing actions on consumer behaviour.
- Use most appropriate techniques to apply market solutions.

MKT-02 Customer Relationship Management (2 Credits)
Introduction to CRM, CRM PROCESS: Introduction and Objectives of a CRM Process; an Insight into CRM and eCRTA/online CRM, The CRM cycle
Assessment Phase; Planning Phase; The Executive Phase; Modules in CRM, 4C's (Elements) of CRM Process, CRM Process for Marketing Organization, CRM Affiliation in Retailing Sector, Developing
CRM Strategy: Role of CRM in business strategy, Understanding Service Quality: Technical, Functional, and dimensions of service quality, Managing Customer communications,
CRM IMPLEMENTATION: Choosing the right CRM Solution; Framework for Implementing CRM: A Step-by-Step Process: Five Phases of CRM Projects: Development Customizations; Beta Test and Data Import; Train and Retain; Roll out and System Hand-off; Support, SALES
FORCE AUTOMATION - Sales Process, Activity, Contact, Lead and Knowledge Management. Field Force Automation, CRM LINKS IN E-BUSINESS: E-Commerce and Customer Relationships on the Internet, Supplier.

References:

Essential:

1. Customer Relationship Management: Concepts and Technologies by Francis Buttle 2009.
2. Handbook of CRM by Adrian Payne · 2012

Desired:

1. Total Relationship Marketing by Evert Gummesson · 2011
2. Creating a long-term partnership over transactional relationship by Shailendra Tripathi.

Reference Papers:

1. Winer, R. S. (2001). A framework for customer relationship management. *California management review*, 43(4), 89-105.
2. Hailwood, J., & Gottlieb, D. (2003). *U.S. Patent Application No. 09/972,277*.
3. Payne, A., & Frow, P. (2005). A strategic framework for customer relationship management. *Journal of marketing*, 69(4), 167-176.

Outcomes:

- In this course, those crucial topics that are emerging in pharma domain but not covered in the curriculum will be taught.
- The main objective of CRM process is to originate a powerful new tool for customer retention.
- To simplify marketing and sales process.
- To make call centres more efficient.
- To provide better customer service.
- To discover new customers and increase customer revenue.
- To cross sell products more effectively.

MKT-03	Digital Marketing in Pharmaceuticals (2 Credits)
SEO – Search Engine Optimization, Doctor data, Chemist Data, Patient Data Management	
SEM Search Engine Marketing, Health Insurance Management	
Hospital Data Management, Product Marketing, Content Marketing	
Data and Website Analytics	
Market Research and Competitor Analysis.	

References:

Essential:

1. Introduction to Digital Marketing in the Pharmaceutical Industry by Olivier Gryson 2019.
2. Digital Strategies in the Pharmaceutical Industry by Leonard Lerer, Mike Piper · 2003

Desired:

1. Digital Marketing: Global Strategies from the World's by Yoram (Jerry) Wind, Vijay Mahajan · 2002.
2. Fundamentals of Digital Marketing Paperback – 1 January 2020 by Neeru Kapoor

Reference Papers:

1. Chaffey, D., & Ellis-Chadwick, F. (2019). *Digital marketing*. Pearson UK.
2. Morris, N. (2009). Understanding digital marketing: marketing strategies for engaging the digital generation.
3. Kannan, P. K. (2017). Digital marketing: A framework, review and research agenda. *International Journal of Research in Marketing*, 34(1), 22-45.

Outcomes:

- The focus is to Understand Marketing Process Understanding Digital Marketing Process Increasing Visibility, Examples of visibility Visitors Engagement, why are the important Examples of engagement Bringing Targeted Traffic Inbound and outbound marketing Converting Traffic into Leads, Types of Conversion, Understanding Conversion Process Tools Needed.

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MKT-04	Marketing of Services (2 Credits)
Nature and Scope of Services, Services Marketing,	
Services Marketing Mix and Gaps Model, Service Design and Service Delivery	
STP Strategy for Services, Consumer Behaviour in Services Marketing, Service Development and Quality Improvement, Customer Defined Service Standards,	
Integrated service market, Marketing of Services, Emerging Issues in Service Marketing, Customer Relationship Management,	
CRM Process and Implementation Introduction, Technological Support in CRM Introduction, e-CRM – Emerging Trend in CRM Introduction	

References:**Essential:**

1. Service Marketing: Concepts & Practices by Kapoor · 2011.
2. Services Marketing by Mary Jo Bitner, Dwayne Gremler, Valarie Zeithaml · 2016

Desired:

1. Essentials of Services Marketing by Jochen Wirtz · 2012
2. Desired-Essentials of Services Marketing, Global Edition by Jochen Wirtz, Christopher H. Lovelock · 2017

Reference Papers:

1. Cowell, D. W., & Communication Advertising. (1984). *The marketing of services*. London: Heinemann.
2. Gronroos, C. (1978). A service-orientated approach to marketing of services. *European Journal of marketing*.
3. Berry, L. L. (2002). Relationship marketing of services perspectives from 1983 and 2000. *Journal of relationship marketing*, 1(1), 59-77.

Outcomes:

- Understanding the Service Customer as a Decision Maker, Customer purchase is associated with Risk, How Service Customers Evaluate the Services etc.
- To understand Components of Customer Expectations.
- To understand Service Satisfaction.
- To understand Service Quality Dimensions.
- To understand Managing Service Encounters.
- To understand Common Encounter Situations.
- To understand Service Failure, Service Recovery.
- To understand Customer Retention and Benefits, Market Segmentation in the Marketing of Services, Target Marketing, Positioning of Services-How to Create a positioning Strategy, Developing and maintaining Demand and Capacity, Marketing Planning for Services, Developing and Managing the Customer Service Function, Developing and Maintaining Quality of Services, The levels of Customer Relationships, Dimensions of a Relationship, Goal of relationship marketing.

MKT-05 Retail Management (2 Credits)
Introduction to Retail, Functions of a retailer-The Marketing-Retail equation. The Rise of the Retailer – Proximity to customer – Rise of consumerism-Global retail market. Challenges and opportunities-Empowered Consumer-Technology enabled effectiveness.
Evolution of Retail in India-Drivers of Retail change in India-Emergence of young earning India.
Size of Retail in India: Clothing, Textiles and Fashion Accessories-Food and Food services Books & Music, Communication accessories –Emerging Sectors-
FDI in retail-Retail Realities: Beyond Urban Boundaries –Challenges to Retail Development in India – Threat of new entrants –Substitutes, Bargaining Power of suppliers and buyers, Intensity of rivalry
The Concept of life cycle in Retail-Innovation, accelerative growth- Maturity Decline-Phases of growth in retail markets-Business models in retail-Classification based on ownership /Merchandise offered/Franchising /Non-Store Retailing/Direct selling/Direct response marketing/Telemarketing/Fairs and Road Shows/Event Management/Automated Vending/kiosks/ The Cash & Carry/credit Marketing/Brand Management.

References:**Essential:**

1. Luxury Retail Management: How the World's Top Brands Provide by Michel Chevalier, Michel Gutsatz · 2012
2. The Retail Revival: Reimagining Business for the New Age of by Doug Stephens · 2013

Desired:

1. Retail Management: An Effective Management Strategy for by Prabhu TL, Guru M · 2019.
2. Desired-Drug Store and Business Management by V. N. Raje, Mohammed Ali, Jyoti Gupta · 2018

Reference Papers:

1. Berman, B., & Evans, J. R. (1988). *Retail management*. Pearson Education Limited.
2. Zentes, J., Morschett, D., & Schramm-Klein, H. (2007). *Strategic retail management*. Springer.
3. Fernie, J., & Sparks, L. (Eds.). (2004). *Logistics and retail management: insights into current practice and trends from leading experts*. Kogan Page Publishers.

Outcomes:

- Introduction to Retailing, Understanding the Retail Consumer, Retail Market Segmentation and Strategies, Retail Location Selection Merchandise Management, Retail Operations and Retail Pricing, Retail Space Management and Marketing, Emerging trends in retailing.
- Understanding the retailing.
- Describe the firms involved in a supply chain.
- Summarize the key challenges facing retailers.
- Identify key roles within retail businesses.
- To list some challenges of working in the retail field.
- To explain the retail mix.
- To explain the retailing concept.

DA-01 Big Data Analytics (2 Credits)
Foundations of Data Science, Predictive Analytics
Predictive Analytics
Machine Learning, Prescriptive Analytics Optimization
Big Data Ecosystem, Machine Learning, Deep Learning and AI
Advanced Machine Learning, Advanced Big Data Analytics, Advanced Big Data Analytics

References:**Essential:**

1. Business Analytics for Managers: Taking Business.by Gert Laursen, Jesper Thorlund · 2010
2. Big Data MBA: Driving Business Strategies with Data Science-by Bill Schmarzo

Desired:

1. Management Decision-Making, Big Data and Analytics- by Simone Gressel, David J. Pauleen, Nazim Taskin · 2020
2. Big Data Analytics by Venkat Ankam · 2016.

Reference Papers:

1. Russom, P. (2011). Big data analytics. *TDWI best practices report, fourth quarter, 19(4)*, 1-34.
2. Kambatla, K., Kollias, G., Kumar, V., & Grama, A. (2014). Trends in big data analytics. *Journal of parallel and distributed computing, 74(7)*, 2561-2573.
3. LaValle, S., Lesser, E., Shockley, R., Hopkins, M. S., & Kruschwitz, N. (2011). Big data, analytics and the path from insights to value. *MIT sloan management review, 52(2)*, 21-32.

Outcomes:

- The focus is to understand the business analytics and big data as a competitive strategy, analyse datasets by applying techniques from statistics, operations research, machine learning, deep learning, network analysis and data mining, Process unstructured data such as social media messages and machine generated clickstream logs, have a working knowledge of languages, platforms and tools that support statistical analysis and visualization (R/Python), distributed computing (Hadoop/Spark) and network analysis (Gephi), Apply the theories, techniques and tools to solve problems from industry sectors such as manufacturing, Services etc. Apply the theories, techniques and tools to solve problems from industry sectors such as manufacturing, services, retail, software, banking and finance, sports, pharmaceuticals, and aerospace.
- Ability to identify the characteristics of datasets and compare the trivial data.
- Ability to select and implement machine learning techniques and computing environment
- Ability to solve problems associated with batch learning and online learning, and the Ability to understand and apply scaling up machine learning techniques and associated.
- To know Computing techniques and technologies.
- Build an ability to recognize and implement various ways of selecting suitable model parameters.
- Build an ability to integrate machine learning libraries and mathematical and statistical tools.

DA-02 Data Analytics with R (2 Credits)
Understanding Analytics and its Role in the Organizations, Course Brief, Introduction and Background of Data Analytics, Knowledge Discovery Process Data Warehouse, OLAP and Pivot Table Extraction
Transformation and Loading of Data in Data Warehouse, OLAP Operations, Pivot Table Exploratory Data Analysis, Graphical Techniques for EDA (Box Plot, Histogram, Run Chart, Pareto chart, etc.), Managing Designs
Creating Interactive Charts Enterprise Reporting, Building Dashboards using Tableau What If/ Sensitivity Analysis, Scenario Manager, Goal Seek, Data Table Simulations, Probability Distribution
Monte Carlo Stimulation Python Programming, recording a Macro, Writing Macro in Excel, Looping, Absolute vs Relative Referencing Price Analytics, Creating Linear and Power Demand Curve
Optimizing Price, Estimating Demand Curves Without Price Elasticity, Price Skimming, Optimizing Sales Models, Segmenting Customers to Maximize Revenue R Programming, Loading and Handling

References:**Essential:**

1. Business Analytics for Managers: Taking Business by Gert Laursen, Jesper Thorlund · 2010
2. Big Data MBA: Driving Business Strategies with Data Science by Bill Schmarzo

Desired-

1. Management Decision-Making, Big Data and Analytics by Simone Gressel, David J. Pauleen, Nazim Taskin · 2020
2. Data Analytics using R by Seema Acharya · 2018

Reference papers:

1. Prajapati, V. (2013). *Big data analytics with R and Hadoop*. Packt Publishing Ltd.
2. LaValle, S., Lesser, E., Shockley, R., Hopkins, M. S., &Kruschwitz, N. (2011). Big data, analytics and the path from insights to value. *MIT sloan management review*, 52(2), 21-32.
3. Ledolter, J. (2013). *Data mining and business analytics with R* (pp. 193-195). Hoboken, NJ: Wiley.

Outcomes:

- Data Analytics with R training will help you gain expertise in R Programming, Data Manipulation, Exploratory Data Analysis, Data Visualization, Data Mining, Regression, Sentiment Analysis and using R Studio for real life case studies on Retail, Social Media.
- Students will develop relevant programming abilities.
- Students will demonstrate proficiency with statistical analysis of data.
- Students will develop the ability to build and assess data-based models.
- Students will execute statistical analyses with professional statistical software.
- Students will demonstrate skill in data management.
- Students will apply data science concepts and methods to solve problems in real-world contexts and will communicate these solutions effectively.

DA-03 Marketing Analytics (2 Credits)
Marketing Data (Using Excel and R Programming)
Forecasting (Using Excel and R Programming)
Pricing Analytics
Analysing Consumer/Customer Preference (Using Excel and SPSS)
Analytics on Retailing
Analytics on Advertising and Promotion
Customer Profitability
Web Analytics
Social Listening and Analytics

References:**Essential:**

1. Data-Driven Techniques with Microsoft Excel by Wayne L. Winston · 2014.
2. Marketing Analytics: Strategic Models and Metrics by Stephan Sorger · 2013

Desired:

1. Marketing and Sales Analytics: Proven Techniques and by Cesar Brea · 2014.
2. Cutting Edge Marketing Analytics: Real World Cases and Data by Rajkumar Venkatesan, Paul Farris, Ronald T. Wilcox · 2014.

Reference Papers:

1. Wedel, M., & Kannan, P. K. (2016). Marketing analytics for data-rich environments. *Journal of Marketing*, 80(6), 97-121.
2. Germann, F., Lilien, G. L., & Rangaswamy, A. (2013). Performance implications of deploying marketing analytics. *International Journal of Research in Marketing*, 30(2), 114-128.
3. Xu, Z., Frankwick, G. L., & Ramirez, E. (2016). Effects of big data analytics and traditional marketing analytics on new product success: A knowledge fusion perspective. *Journal of Business Research*, 69(5), 1562-1566.

Outcomes:

- This course will introduce students to state-of-the-art marketing analytics and will demonstrate how to practically apply these analytics to real-world business decisions. Students will develop an understanding of the data available to marketers, its uses and limitations, and be exposed to methods for measuring performance of marketing efforts. Students will acquire hands-on experience with tools and software which may include spreadsheet-based models, marketing metrics, business intelligence and modelling software and web/social media measurement tools. In a world where marketers are held accountable for results, the mastery of marketing analytics is an indispensable competitive advantage.
- Demonstrate knowledge and critical understanding of the role and value of information, performance measurement and customer / competitor insights in marketing.
- Understand the organisational and discursive processes through which data is translated into marketing practices.
- Use IT for marketing applications and to support information retrieval, data analysis and communication.
- To Explore the international and ethical dimensions of marketing analytics.
- The intended generic learning outcomes.
- On successfully completing the module students will be able to:
- Use a range of established techniques to initiate and undertake critical analysis of information.
- Propose solutions to problems arising from data analysis. Effectively Communicate information, arguments and analysis in a variety of forms. Demonstrate an ability to work pro-actively with others to formulate solutions.

DA-04 Python for Managers (2 Credits)
Introduction to R & Python, Basic Statistics and Probability,
Basic Linear Algebra, Data: Management, Exploration, and Analysis,
Business Analytics in the Real World, Problems and Data, Probability and Statistics using R and Python.
Data Visualization using Tableau, Big Data Management, Data Analysis: Methods and Models Analytics: Communication
Ethics, and Organizational Value, Analytics in Business and Management, Capstone Project.

References:**Essential-**

1. Python for MBAs by Mattan Griffel, Daniel Guetta · 2021.
2. Basics of Python Programming: Embrace the Future of Python by Dr. Pratiyush Guleria

Desired:

1. Learn Web Development with Python: Get hands-on with Python by Fabrizio Romano, Gaston C. Hillar, Arun Ravindran · 2018
2. Python for Everybody: Exploring Data Using Python 3 by Charles R. Severance, Sue Blumenberg, Elliott Hauser · 2016

Reference Papers:

1. Van Rossum, G., & Drake Jr, F. L. (1995). *Python reference manual*. Amsterdam: Centrum voor Wiskunde en Informatica.
2. Lutz, M. (2001). *Programming python*. " O'Reilly Media, Inc."
3. Piaggio, A. J., Engeman, R. M., Hopken, M. W., Humphrey, J. S., Keacher, K. L., Bruce, W. E., & Avery, M. L. (2014). Detecting an elusive invasive species: a diagnostic PCR to detect Burmese python in Florida waters and an assessment of persistence of environmental DNA. *Molecular ecology resources*, 14(2), 374-380.

Outcomes:

- This course will introduce students to state-of-the-art marketing analytics and will demonstrate how to practically apply these analytics to real-world business decisions.
- Students will develop an understanding of the data available to marketers, its uses and limitations, and be exposed to methods for measuring performance of marketing efforts.
- Students will acquire hands-on experience with tools and software which may include spreadsheet-based models, marketing metrics, business intelligence and modelling software and web/social media measurement tools. In a world where marketers are held accountable for results, the mastery of marketing analytics is an indispensable competitive advantage.
- Create, select, and apply appropriate techniques.
- Resources, and modern engineering and IT tools including prediction.
- Modelling to complex engineering activities with an understanding of the limitations.
- Life-long learning: recognize the need.
- To build an ability to engage in independent and life-long learning in the broadest. To study the context of technological change.

Elective 3 - Finance, Accounting, and Control

FAC-01	Behavioural Finance (2 Credits)
	The Review of market efficiency theory
	Difficulties in arbitrage, Influence of biases and heuristics on investor decisions
	Rational investing in inefficient markets
	Measuring of investor sentiment
	Financial planning process and investor psychology

As suggested by the committee the subject will be taught by Finance expert

References:**Essential-**

1. Lecture Notes in Behavioural Finance by Itzhak Venezia · 2018
2. Behavioural Finance by M. M. Sulphey · 2014

Desired-

1. Behavioural Finance | Second Edition by Prasanna Chandra · 2020
2. Desired-Behavioural Finance by Sujata Kapoor, Jaya MamtaProsad · 2019

Research Papers:

1. Forbes, W. (2009). *Behavioural finance*. John Wiley & Sons.
2. Shleifer, A. (2000). *Inefficient markets: An introduction to behavioural finance*. OUP Oxford.
3. Subrahmanyam, A. (2016). Behavioural finance: A review and synthesis. *European Financial Management*, 14(1), 12-29.

Outcomes:

- The Focus is Bounded rationality concept; main assumptions and ideas of prospect theory; theoretical and empirical foundations and challenges to the efficient market hypothesis.
- To know the key behavioural biases of individual and professional investors.
- To know the key anomalies in the markets proving the behavioural biases& also behavioural biases of top managers.
- Gain an understanding of financial market anomalies.
- Gain an understanding of the differences between the neoclassical model of behaviour and behavioral finance models.
- Discover the impact of uncertainty on decision making and market movements.
- Become comfortable engaging in discussion and debate over finance and related issues.

FAC-02	Corporate Governance (2 Credits)
Introduction of corporate governance, The role and purpose of the corporation, Theoretical aspects of corporate governance, Agency theory and separation of ownership and control	
Shareholders and Shareholder Activism, Ownership structure and firm performance, Market for corporate control, Proxy fights and takeover bids, Hedge fund activism, The role of institutional investors	
Boards of Directors, Director and board structure, who are they? Role, fiduciary duties and responsibilities, Independent director, Sarbanes-Oxley Compliance, Business Laws & Ethics	
Management, Management ownership and firm performance, Theory of Financial Contracting, Executive compensation, Stock options	
International Corporate Governance, Cross-Country comparison, Cross-country difference vs. Firm-level difference, Cross-Border investment by foreign investors, Investor protection and home bias, Country case study: China Governance, Political Economy, and Banking, Political economy models of corporate governance arrangements, Governance, Compensation and Bank Risk-taking	

References:**Essential:**

1. Corporate Governance Matters: A Closer Look at ... by David Larcker, Brian Tayan 2011.
2. Corporate Governance by John L. Colley · 2003

Desired:

1. Corporate Governance in India by Jayati Sarkar, Subrata Sarkar · 2012
2. The Essential Book of Corporate Governance by G. N. Bajpai · 2016

Reference papers:

1. Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The journal of finance*, 52(2), 737-783.
2. Becht, M., Bolton, P., & Röell, A. (2003). Corporate governance and control. In *Handbook of the Economics of Finance* (Vol. 1, pp. 1-109). Elsevier.
3. Williamson, O. E. (1988). Corporate finance and corporate governance. *The journal of finance*, 43(3), 567-591.

Outcomes:

- The focus is to solve two principal-agent (PA) problems, which are present in large corporations where ownership of residual cash flow and control are in different hands.
- Demonstrate a solid understanding of the purpose and nature of corporations.
- Evaluate different stakeholders' roles and significance in relation to corporate governance.
- Explain the importance of regulation, markets and information in corporate governance.
- International differences and similarities in relevant institutions and developments.
- Critically assess governance concerns for individual corporations and their stakeholders.

FAC-03 Mergers, Acquisitions and Corporate restructuring (2 Credits)
The different types of corporate restructuring transactions.
Business combination transactions
Mergers & Transactions, Compliance Management
Mergers and acquisitions and break-up transactions such as demergers or spin-offs and divestitures
The key elements in the M&A value chain viz., pre-acquisition planning, deal execution including valuation and financing, post-acquisition integration and management and regulatory

References:**Essential-**

1. Mergers, Acquisitions and Corporate Restructuring, 2nd Edition by Godbole, Prasad G. · 2013
2. Mergers and Acquisitions Basics: All You Need to Know by Donald De Pamphilis 2010

Desired-

1. Mergers, Acquisitions, and Corporate Restructurings by Patrick A. Gaughan · 2002
2. Mergers, Acquisitions by Chandrashekar Krishnamurti, S R Vishwanath · 2016

Reference Papers:

1. Gaughan, P. A. (2010). *Mergers, acquisitions, and corporate restructurings*. John Wiley & Sons.
2. DePamphilis, D. (2019). *Mergers, acquisitions, and other restructuring activities: An integrated approach to process, tools, cases, and solutions*. Academic Press.
3. Hall, B. H., Berndt, E., & Levin, R. C. (1990). The impact of corporate restructuring on industrial research and development. *Brookings papers on economic activity. Microeconomics*, 1990, 85-135.

Outcomes:

- The motives for and drivers of M&A and restructuring activities such as value creation, preservation and sustenance through various strategic initiatives. At what stage in an industries or organization's life cycle would the pursuit of these specific strategies be appropriate? Regulatory aspects and deal structuring.
- This module explores creativity in deal structuring and examines key relevant aspects of takeover and company law regulations, tax issues and the new Insolvency and Bankruptcy also. What can go wrong in M&A and how to avoid/mitigate the common pitfalls.
- Explain the rationale behind the use of mergers and acquisitions by a firm's managers, the key pitfalls and recommendations for maximising the chances for long-term success.
- Develop integrative, adaptive planning frameworks for use before, during and after a negotiation by applying a thorough understanding of negotiation concepts, theories and principles.
- Critically compare the concepts and principles of financial valuation and negotiation in relation to managerial decision-making.
- Apply industry-accepted valuation methods.
- Utilise appropriate negotiation and persuasion techniques for a given negotiation situation to achieve desired outcomes.
- Work as part of an effective team to prepare a financial valuation and a negotiation plan.

FAC-04 Strategic Financial Management (2 Credits)
Value-based Management (VBM) — A New Paradigm of the Financial Management, Corporate investment and financing decisions. Sources of financing: debt and equity capital. Financial intermediaries and financial market: opportunities and limitations for the companies. Corporate Finance and its role and function in the company.
Formal definition of VBM. Genesis of VBM. Transformation of company analytical model: accounting and financial models of the company. Financial and accounting approaches to profitability analysis. Book and market value.
Major components of VBM. Corporate value management cycle.
The VBM development factors. (a) Influence of the intra-business processes. The phenomenon of the financialization. (b) Escalation of the principal-agent conflict and emergence of the market for corporate control. Elements of the principal-agent conflict. Example of Management Buyout (MBO). (c) Corporate dissatisfaction with existing performance measurement systems: problems with traditional accounting and cash flow measures. (d) Activism of the consultancies in marketing VBM as a consulting product.
Value maximization as a corporate objective function: fundamental assumption of the VBM. Corporate objective function. Value maximization theory. Stakeholders' theory. Definition of «stakeholder. Arguments for value maximization theory.

References:**Essential-**

1. Strategic Financial Management: Application of Corporate Finance by Samuel Weaver, Weston · 2007.
2. Strategic Financial Management by Terry Ness · 2016

Desired-

1. Strategic Financial Management - Managing for value creation | Second Edition by Prasanna Chandra · 2020
2. Strategic Financial Management by Ravi M. Kishore · 2009

Reference Papers:

1. Karadag, H. (2015). Financial management challenges in small and medium-sized enterprises: A strategic management approach. *EMAJ: Emerging Markets Journal*, 5(1), 26-40.
2. Higgins, R. C., & Reimers, M. (1995). *Analysis for financial management* (No. s 53). Chicago: Irwin.
3. Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic management journal*, 10(1), 75-87.

Outcomes:

- The focus is to understand the limitations of the traditional corporate performance metrics.
- To get an overview of the Value-Based Management (VBM) concept.
- With emphasis on individual and collaborative learning, the Programme will be taught through the case method.
- The Programme is intensive and the participants will need to commit a certain amount of time every week for self-learning.
- Consolidate knowledge of and apply the technical language and practices of financial management.
- Undertake sophisticated financial analysis with regard to Corporate valuation, interest rate and currency risk management and present the information in an appropriate format.
- Evaluate, synthesise and apply the contemporary theories and empirical evidence concerning Financial Management to a range of problems and situations.
- Critically evaluate the impact of macroeconomics and recognise the role of international financial institutions in the financial management of multinationals.
- Identify and assess the potential impact of emerging issues in finance and financial management.

Elective 4 - Human Resources

HR-01 Talent Management and Competency Mapping(2 Credits)
<ol style="list-style-type: none"> 1. Introduction to Talent Management, Talent Management – Meaning, History, Scope of Talent Management, Need of Talent Management, Benefits and Limitations of Talent Management, Principles of Talent Management, Sources of Talent Management, Talent Gap – Meaning, Strategies to Fill Gaps, The Talent Value Chain, Role of HR in Talent Management, Role of Talent Management in Building Sustainable Competitive Advantage to an Organisation 2. Corporate Finance and its role and function in the company.
<ol style="list-style-type: none"> 3. Talent Management System, Talent Management System – Meaning, Key Elements of Talent Management System, Critical Success Factors to Create Talent Management System, Building Blocks for Talent Management – Introduction, Effective Talent Management, System, Building Blocks of Effective Talent Management System, Life Cycle of Talent Management – Meaning, Steps in Talent Management Process, 4. Importance of Talent Management Process, Essentials of Talent Management Process, Approaches to Talent Management, 5. Talent Management Strategy – Meaning, Developing a Talent Management Strategy, Mapping Business Strategies and Talent Management Strategies, Talent Management and Succession Planning
<ol style="list-style-type: none"> 6. Contemporary Issues and Current Trends in Talent Management
<ol style="list-style-type: none"> 7. Competency Management and Competency Mapping 8. Concept of Competency and Competence, Competence v/s Competency, Types of Competencies, Benefits and Limitations of
<ol style="list-style-type: none"> 9. Competency Management – Meaning, Features and Objectives, Benefits and Challenges of Competency Management, Competency Development – Meaning, Process, Competency Mapping – Meaning, Features, Need and Importance of Competency 10. Mapping, Methods of Competency Mapping, Steps in Competency Mapping.

References:

Essential:

1. Human Resource-Human Resource Management for MBA Students by Iain Henderson · 2011.
2. Strategic approach to Human resource management by Tapomoy Deb -2016

Desired:

1. Human resource planning for 21st century by Josiane Fahed-Sreih- 2018
2. Human resource management third edition by Aswathappa Sadhma- 2010

Reference Papers:

1. Garavan, T. N., Carbery, R., & Rock, A. (2012). Mapping talent development: definition, scope and architecture. *European journal of training and development*.
2. Naqvi, F. (2009). Competency mapping and managing talent. *IUP Journal of Management Research*, 8(1), 85.
3. Takey, S. M., & de Carvalho, M. M. (2015). Competency mapping in project management: An action research study in an engineering company. *International Journal of Project Management*, 33(4), 784-796.

Outcomes:

- To understand key talent management and competency management concepts, to understand the concept and importance of competency mapping,
- To understand the role of talent management and competency management in building sustainable competitive advantage to an organization.
- To identifying the key success factors.
- To pin point triggers for each role.
- To laying direction for superior performance.
- To understand defined expectations from employees.
- Serving means for communicating performance expectations.
- To understand & obtain greater transparency about their roles.
- To understand opportunities for development.
- Creating a more empowered workforce and employing the workforce effectively.

References:**Essential:**

1. The competency handbook by Steve Whiddett, Sarah Hollyforde -2012
2. Competency development guide by Edward J Cripe- 2017

Desired:

1. The handbook of competency mapping by Seema Sanghi -2007
2. Competency Mapping and Assessment Manual - User Guide by Indranil Gupta · 2020.

Reference Papers:

1. Sanghi, S. (2016). *The handbook of competency mapping: understanding, designing and implementing competency models in organizations*. SAGE publications India.
2. Shermon, G. (2004). *Competency based HRM: A strategic resource for competency mapping, assessment and development centres*. Tata McGraw-Hill Education.
3. Yuvaraj, R. (2011). Competency mapping. *International journal of scientific & engineering research*, 2(8), 1-7.

Outcomes:

- To understand managerial competencies in changing business environment and the resultant challenges.
- To establish links between managerial competencies for effective career development.
- To understand gap analysis in competencies
- To understand role clarity
- Selection, potential identification, growth plans.
- Succession planning restructuring.
- Inventory of competencies for future planning.

HR-02 Compensation management (2 Credits)
1. Compensation – Definition – Compensation Responsibilities – Compensation System Design Issues – Compensation Philosophies – Compensation Approaches
2. Compensation Classification – Types – Incentives – Fringe Benefits – Strategic Compensation Planning – Determining Compensation – The wage Mix – Development of Base Pay Systems – The Wage Curve – Pay Grades – Salary Matrix – Compensation as a Retention Strategy.
3. Theories of Wages – Wage Structure – Wage Fixation – Wage Structure – Wage Fixation – Wage Payment – Salary Administration – Executive Compensation – Incentive Plans – Team Compensation – Gain Sharing Incentive Plan – Enterprise Incentive Plan – Profit Sharing Plan- ESOPs – Compensation Management in Multi-National organizations.
4. Methods of Rewarding of Sales Personnel – Pay – Commission – Pay and Commission – Performance-Based Pay Systems – Incentives – Executive Compensation Plan and Packages – Perceptions of Pay Fairness – Legal Constraints on Pay Systems.
5. Wage Boards – Pay Commissions – Employee Benefits – Benefits Need Analysis – Funding Benefits – Benchmarking Benefit Schemes – Employee Benefit Programs – Security Benefits – Creating a Work-Life Setting – Designing Benefit Packages.

*** Eminent Leaders in HR domain will take the lectures**

References:

Essential:

1. Compensation Management: Text and Cases Paperback by Deb Tapamoy 2000

2. Strategic compensation and talent management by Jed De varo- 2020

Desired:

1. Compensation management by Dipak Kumar Bharttacharyya- 2009.

2. Compensation & Reward management by Bishwanath Gosh 2012

Reference Papers:

1. Milkovich, G. T. (1987). *A strategic perspective on compensation management* (pp. 1-15). Cornell University, Center for Advanced Human Resource Studies, School of Industrial and Labor Relations.

2. Coughlan, A. T., & Schmidt, R. M. (1985). Executive compensation, management turnover, and firm performance: An empirical investigation. *Journal of accounting and economics*, 7(1-3), 43-66.

3. Adeoye, A. O., & Fields, Z. (2014). Compensation management and employee job satisfaction: A case of Nigeria. *Journal of Social Sciences*, 41(3), 345-352.

Outcome

- To understand managerial competencies in changing business environment and the resultant challenges.
- To establish links between managerial competencies for effective career development.
- Recognize how pay decisions help the organization achieve a competitive advantage.
- Analyse, integrate, and apply the knowledge to solve compensation related problems in organizations.

- Demonstrate comprehension by constructing a compensation system encompassing; a) internal consistency, b) external competitiveness c) employee contributions, d) organizational benefit systems, and e) administration issues.
- Design rational and contemporary compensation systems in modern organizations.

HR-03 Learning and development (2 Credits)
1. Introduction to Learning: Concepts of Learning, Phases in Learning, learning theories -Reinforcement theory, Social learning Theory, Goal theories, need theories, expectancy theory, Adult Learning theory Information Processing Theory, The Learning Process, The Learning Cycle, Instructional emphasis
2. Training Strategy and Designing Training: The evolution of Trainings Role, Strategic Training and development Process, Training needs in different strategies.
3. Models of Training Department. Training needs Assessment, Reasons for planned training. Designing the training program, developing the group and the climate, Trainers and training styles, Evaluating training and Follow-on support.
4. Contemporary issues in Training and Development: Orientation training, diversity training, sexual harassment training, team-training, cross functional teams, cross cultural training, training for talent management and competency mapping.
5. Career Management, career management systems, Career paths, Career Plateauing, Coping with career breaks, Training for virtual work arrangements

References:

Essential:

1. The Learning & Development Book Paperback – 15 December 2011 by Tricia Emerson.

2. Learning and development by Rosemary Harrison-2009

Desired:

1. Learning and development Effectiveness in organizations by Thomas N Garvan-2020

2. Learning and development tools by Kenneth Fee-2011

Reference Papers:

1. Harrison, R. (2005). *Learning and development*. CIPD publishing.

2. Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. FT press.

3. Renninger, K. A., Hidi, S., Krapp, A., & Renninger, A. (Eds.). (2014). *The role of interest in learning and development*. Psychology Press.

Outcomes:

- The Students will be able to understand the importance of Learning performance and Training and Development.
- Define the type and depth of learning students are expected to achieve.
- Provide an objective benchmark for formative, summative, and prior learning assessment.
- Clearly communicate expectations to learners.
- Clearly communicate graduates' skills to prospective employers.
- Define coherent units of learning that can be further subdivided or modularized for classroom or other delivery modes.
- Guide and organize the instructor and the learner.

HR-04 Managing Across Culture (2 Credits)
1. Understanding of the changing global business environment, cross-cultural theoretical frameworks and issues, and implications for management.
2. Competence in critically analysing cultural conflicts; conducting comparative analyses and understanding cultural differences; applying problem solving strategies to resolving cross cultural differences and associated issues.
3. Identify cultural characteristics associated with nations, communities, groups' organisations and individuals; identify desirable competencies for effective global management; strengthened awareness of emotional intelligence for the workplace and management.
4. Understand a range of strategies used in international negotiation. 5. Write and present a persuasive argument and engage in culturally sensitive communication; awareness of cultural nuances in communication.
6. Understanding of cross-cultural leadership styles; understanding of HR training required for expatriate assignments; ability to work cohesively within cross cultural teams and provide leadership when required

References:

Essential:

1. Managing across the culture by Richard M Steers
2. Managing across cultures by Carlene Marmer Solomon-2009

Desired:

1. Managing across cultures by Fons Trompenaars-2004
2. Desired-Managing across cultures by Mohamed Branine -2011

Reference Papers:

1. Hoecklin, L. (1995). *Managing cultural differences*. Addison Wesley Longman.
2. Solomon, C. M., & Schell, M. S. (2009). *Managing across cultures*. Tata McGraw-Hill Education.
3. Schneider, S. C., Schneider, S. C., & Barsoux, J. L. (2003). *Managing across cultures*. Pearson Education.

Outcomes:

- The focus is to develop greater awareness of the changing global business environment.
- To provide conceptual frameworks for systematically understanding the notion of culture, cultural synergies and difference.
- It enables students to develop the knowledge, skills and capabilities required to manage across borders and cultures.
- It enhances students' intercultural communication skills and interactions
- To provide opportunities to apply the knowledge and understanding gained through experiential and problem-based learning.
- To understand cross-cultural leadership styles.

HR-05 Strategic HRM (2 Credits)
1. Introduction to SHRM: Definition, Need, Importance, and Steps, Human Resource Environment: Workforce Diversity, Demographic Changes, Temporary and Contract Labour, Global Environment, International Labour Standards, Changed Role of HR in Organizations
2. Recruitment & Retention Strategies: Online Recruitment, Outsourcing Recruitment, Head Hunting, Performance Management Strategies: Defining Key Result Areas, Seniority Vs. Merit-based Promotions, Pay for Performance, 360 Feedback, Executive performance
3. Compensation & Reward Strategies: Skill Based Pay, Broad banding, Variable Pay, Incentives and Benefits, Profit Sharing, ESOP, Executive Compensation, Training & Development Strategies: Cross-cultural Training, Multi-Skilling, Succession Planning, Learning Organizations and Organizational Learning
4. Retirement & Retrenchment Strategies: Redundancy, Downsizing, HR Outsourcing, Employee Leasing, Separation Benefits e.g., VRS/CRS
5. Human Aspects of Strategies Implementation, Human Side of Mergers & acquisition, Leadership, Managing Conflict, Stress Management, Work-life Balance, Reengineering HR, Human Resource Development: Accounting and management

References:

Essential-

1. **Strategic HRM by Peter Boxall-2015**

2. Strategic HRM by Rajib Lochan Dhar- 2016

Desired-

1. Strategic HRM by Catherine Bailey- 2018

2. Strategic HRM and development by Richard Regis- 2016

Research Papers:

1. Paauwe, J., & Boselie, P. (2003). Challenging 'Strategic HRM' and the relevance of the institutional setting. *Human Resource Management Journal*, 13(3), 56-70.

2. Wright, P. M., Snell, S. A., & Dyer, L. (2005). New models of strategic HRM in a global context. *The International Journal of Human Resource Management*, 16(6), 875-881.

3. Akhtar, S., Ding, D. Z., & Ge, G. L. (2016). Strategic HRM practices and their impact on company performance in Chinese enterprises. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, 47(1), 15-32.

Outcomes:

- The focus is to establish the linkage between firm strategy and HR practices of the firm through Resource-based view of Competitive Advantage and Sustained Competitive Advantage.
- To be able to understand the need for different HRM practices in alignment with different business strategies through closed system as well as open System models such as behavioural perspective and cybernetic systems.
- Explains the scope of HRM.
- Understand the meaning and nature of strategic HRM.
- Appreciate how HR strategies are related to business strategies.

- Describe how HR strategies can be informed by a knowledge of labour markets and product markets locally, nationally and internationally. Describe the dynamic nature of global competition and of social and technological trends and their significance for HRM practice.

BS-01 Strategic Alliance (2 Credits)
1. Introduction to Strategic Alliances 2. Definition 3. Alliance Logic 4. Strategic Alliance Typologies 5. Strategic Alliance Performance
6. Working abroad, working with others: How firms learn to operate international joint-ventures. 7. The mediating roles of contract completeness and partner co-operation
8. Strategy Multiple, inconsistent, latent and changing objectives, Alliance Control, Managing Alliances: The Alliance Management Challenge.
9. Alliance Strategy, Alliance Motivation Make, Buy, or Partner Alliance Human Resource Management in Alliances, Conflict and Conflict Resolution, 10. Alliance Divorce
11. Cross-Border Alliances, The Cross-Border Challenge, The Role of Culture, The Role of International Relations

References:

Essential-

1. Strategic Alliances: Formation, Implementation and Evolution Hardcover – Import, by LORANGE 1992.
2. Strategic Alliances by Mike Nevin

Desired-

1. Strategic Alliances by Brian Tjemkes
2. Mastering Alliance Strategy by James D Bamford 2018.

Research Papers:

1. Bleeke, J., & Ernst, D. (1995). Is your strategic alliance really a sale?. *Harvard business review*, 73(1), 97-105.
2. Das, T. K., & Teng, B. S. (1998). Resource and risk management in the strategic alliance making process. *Journal of management*, 24(1), 21-42.
3. Whipple, J. M., & Frankel, R. (2000). Strategic alliance success factors. *Journal of supply chain management*, 36(2), 21-28.

Outcomes:

- The objective of this course is to introduce students to the principles underlying the development and implementation of strategy and management (and occasionally other areas) as they pertain to strategic alliances, and provide them with the tools to accomplish this task successfully.
- Describe major theories, background work, concepts and research output in the field of strategic management.
- Demonstrate a clear understanding of the concepts, tools & techniques used by executives in developing and executing strategies and will appreciate its integrative and interdisciplinary nature.

- Demonstrate effective application of concepts, tools & techniques to practical situations for diagnosing and solving organisational problem.
- Demonstrate capability of making their own decisions in dynamic business landscape.
- Develop their capacity to think and execute strategically.

BS-02 Strategic consulting (2 Credits)
1. The Changing Consulting Industry 2. Consultants: Types, Skills and Values 3. Consulting as a Profession 4. Marketing and Selling of Consulting Services
5. Discussion of Data Gathering Methods 6. Entry, Contracting and Proposal Writing 7. Strategic and Organization Information Technology Consulting
8. Strategy in Organizations Consulting 9. Analysing and Framing Problems 10. Managing Engagements
11. Consulting to CEOs and Boards, Consulting to Global Clients 12. Intervention and Change, Merger and Acquisition Integration
13. Managing Consulting Firms - Performance Problems

References:

Essential-

1. Consulting essentials by Jeff Kavanaugh-2018
2. Strategic consulting by Philippe chereau-2017

Desired-

1. Introduction to management consultancy by Marc Baaij-2013
2. Management-Strategic management: A Conceptual Framework by Arabinda Bhandari · 2013

Reference Papers:

1. Simon, A., & Kumar, V. (2001). Clients' views on strategic capabilities which lead to management consulting success. *Management Decision*.
2. Haverila, M., Bateman, E. R., & Naumann, E. R. (2011). The drivers of customer satisfaction in strategic consulting engagements. *Management Decision*.
3. Chrisman, J. J. (1989). Strategic, administrative, and operating assistance: The value of outside consulting to pre-venture entrepreneurs. *Journal of Business Venturing*, 4(6), 401-418.

Outcomes:

- To expose students to the classical literature of the profession.
- To view problems from the perspective of practicing experts in the field.
- To prepare solutions to case studies utilizing acquired technical expertise and experience.
- Gain knowledge of management consulting practices.
- Improve your ability to define key factors and issues relevant to a consulting engagement.
- Examine their inter-relationships and learn to 'massage' them conceptually.
- Gain practice in conducting a field-consulting project.
- Improve your ability to present analyses of issues and organizational problems in a concise, accurate, clear and interesting manner from the perspective of a consult.

- Gain exposure to a variety of processes and interventions involved in the management consulting arena.
- Learn how to match your individual strengths, weaknesses, likes, dislikes, personality and goals with consulting opportunities, demands and behaviours so as to help you enhance placement and career opportunities in management consulting.

BS-03 Strategy Simulation (2 Credits)
1. Intro to Strategy Business Simulation
2. Strategic Direction and Goal Setting Business Simulation
3. External Analysis Internal Analysis
4. Competitive Strategy
5. Week Competitive Moves
6. International Strategy
7. Corporate Strategy
8. Strategy Execution
9. Ethics and Leadership

References:

Essential-

1. Exploring Strategy: My Strategy Lab and The Strategy Experience simulation by Gerry Johnson
2. Strategic modelling and business dynamics by John D W Morecroft -2015

Desired-

1. Shift by William hall-2014
2. Modelling risk by Johnathan Mun -2016

Reference Papers:

1. Ross, A. H., Gurney, W. S., Health, M. R., Hay, S. J., & Henderson, E. W. (1993). A strategic simulation model of a fjord ecosystem. *Limnology and Oceanography*, 38(1), 128-153.
2. Schwarz, J. O. (2009). Business war gaming: developing foresight within a strategic simulation. *Technology Analysis & Strategic Management*, 21(3), 291-305.
3. Bunn, D. W. (2000). Forecasting loads and prices in competitive power markets. *Proceedings of the IEEE*, 88(2), 163-169.

Outcomes:

- To Identify and describe the complexities of strategically managing a corporation in the global business environment.
- Apply strategic decision making in a variety of “real world” global contexts.
- Learning how to assess strengths and weaknesses, opportunities and threats of a company in a dynamic environment.
- Formulate and implement strategies.
- Understand how marketing, finance, and strategy are interrelated.
- Apply concepts and tools in strategy, finance, and marketing.

Elective 6 - Quantitative Management and Operations Management

QM-01	Strategic Sourcing for Competitive Advantage (2 Credits)
1.	Introduction to Strategic Sourcing
2.	Sourcing Chessboard
3.	Supplier Evaluation & Selection
4.	Outsourcing & Contract Management
5.	Supplier Development & Integration, e-Sourcing and recent trends in purchasing.

References:

Essential-

1. Competitive strategy by Michael E Porter -1980
2. Strategic Global sourcing best practices by Fred Sollish -2011

Desired-

1. An overview of Global strategic sourcing by Fred Sollish -2011
2. Operations management and quantitative management-Operations Management: A Quantitative Approach by P. B. Mahapatra · 2018

Reference Papers:

1. Gottfredson, M., Puryear, R., & Phillips, S. (2005). Strategic sourcing. Harvard business review, 83(2), 132-139.
2. Pattni, D. J. (2016). Strategic sourcing for a competitive advantage in the private industry.
3. Talluri, S., & Narasimhan, R. (2004). A methodology for strategic sourcing. European journal of operational research, 154(1), 236-250.

Outcomes:

- The focus is to understand fundamentals of Strategic Sourcing, sourcing policy for in sourcing vs. outsourcing decision.
- To understand how early supplier involvement can lead to supply chain effectiveness.
- To understand recent trends in sourcing& understand Sourcing development model.
- Knowledge and understanding of the most important aspects and the terminology of procurement and supply management.
- Applying knowledge and understanding to real contexts, by means of good practice examples and interactive examples.
- Making judgements and taking decisions using correct procedures and tools.
- Communication skills will be improved by means of interactive discussions during which the students will be required to discuss noteworthy themes.
- Learning skills will be improved by the interactive use of office software applications and open-source industrial data analytics applications.

Elective 7 – Innovation & Entrepreneurship

EDI-01	Innovation and Entrepreneurial Strategy, Technology-Based Entrepreneurial strategy (1 Credit)
1.	Innovation, Types, Styles
2.	Business Model Challenge, Entrepreneurial Strategy
3.	Technology Based Innovation & Strategy
4.	Venture Funding

References:

Essential-

1. Technology, Innovation, Entrepreneurship and Competitive Strategy - Barak S. Aharonson
2. Managing Technology Entrepreneurship and Innovation By Paul Trott, Dap Hartmann, Patrick van der Duin, Victor Scholten, J. Roland Ort

Desired-

1. Managing Innovation and Entrepreneurship Author: Robert D. Hisrich & Claudine Kearn

Reference Papers:

1. Feldman, M. P. (2014). The character of innovative places: entrepreneurial strategy, economic development, and prosperity. *Small Business Economics*, 43(1), 9-20.

Focus:

- The focus of Innovation & Entrepreneurship Specialization, students gains the competencies to manage technology innovation, entrepreneurial ventures and commercialization processes in generating business plans and ideas.
- The Innovation & Entrepreneurship MBA, supported by the Technology Commercialization Centre (TCC) , provides a valuable tool to jump to the forefront of new venture creation and innovation management.
- Focusing on all levels of innovation management, from idea generation, through feasibility studies, and finally to market launch, the Innovation & Entrepreneurship Specialization develops knowledge and skills in the important areas of:

1. Identifying opportunities
2. Facilitating innovation and development
3. Managing intellectual property
4. Building new organizations and markets

EDI-02	Start-ups, New Venture Creation, Co-Creating Value (1 Credit)
1.	Start-ups, Ideas, Ideas nurturing
2.	Search funds- Managing Creativity, Venture, Ventures Creation
3.	Co Creation
4.	Co-creation Value

References:

Essential-

1. The future competition – Peter Senge
2. The Co-Creation Paradigm

Desired-

1. The Power of Co-Creation: Build It with Them to Boost Growth, Productivity, and Profits by Venkat Ramaswamy, Francis J. Gouillart

Reference Papers:

1. Prahalad, C. K., & Ramaswamy, V. (2004). *The future of competition: Co-creating unique value with customers*. Harvard Business Press.
2. Giannopoulou, E., Yström, A., & Ollila, S. (2011). Turning open innovation into practice: Open innovation research through the lens of managers. *International Journal of Innovation Management*, 15(03), 505-524.
- Talluri, S., & Narasimhan, R. (2004). A methodology for strategic sourcing. *European journal of operational research*, 154(1), 236-250.

Focus:

- The Focus is on the creator, the creating process, new value creation, the close environment and the remote environment. Thus, entrepreneurship is seen as a multidimensional construct, including a tight nexus incorporating the creator, the creating process and new value creation.

EDI-03 Innovation and Productivity, Social Entrepreneurship (1 Credit)
1. Innovation Productivity
2. Social Entrepreneurship
3. Service innovation, New product Development
4. Strategic product Development

References:**Essential-**

1. **Social Innovation and Social Entrepreneurship: Fundamentals, Concepts, and Tools 1st ed. 2019 Edition by Luis Portales**

2 **Understanding Social Entrepreneurship: The Relentless Pursuit of Mission in an Ever-Changing World 2nd Edition by Jill Kickul**

Desired-

1. **Social Entrepreneurship: What Everyone Needs to Know by David Bornstein**

2. **The Social Entrepreneur's Playbook, Expanded Edition: Pressure Test, Plan, Launch and Scale Your Enterprise Paperback – November 12, 2013 by Ian C. MacMillan**

Reference Papers:

1. Davis, S. M. (2002). Social entrepreneurship: Towards an entrepreneurial culture for social and economic development. *Available at SSRN 978868*.
2. Nicholls, A. (Ed.). (2008). *Social entrepreneurship: New models of sustainable social change*. OUP Oxford.

Focus:

- The focus is creating new products or services to address social or environmental needs. This business model creates shared value, meaning that the organization simultaneously generates financial benefits and environmental and/or social benefits.
- The main goal of a social entrepreneur is not to earn a profit. Rather, a social entrepreneur seeks to implement widespread improvements in society. It helps to

understand a social entrepreneur must still be financially savvy to succeed in his or her cause.