



# NANDHA ENGINEERING COLLEGE

(Autonomous)

Affiliated to Anna University Chennai \* Approved by AICTE \* Accredited by NBA - New Delhi

Pitchandampalayam (P.O), Vaikkalmedu, Erode - Perundurai Road, Erode - 638 052

Phone : 04294 - 225585, 223711, 223722, 226393 Mobile : 73737 23722 Fax : 04294 - 224787

Website : [www.nandhaengg.org](http://www.nandhaengg.org)

E.mail : [info@nandhaengg.org](mailto:info@nandhaengg.org)

## 1.1.2. Details of courses where syllabus revision was carried out in M.B.A-

### MASTER OF BUSINESS ADMINISTRATION

#### R-22 Curriculum

S.No	Course Code	Course Name	% of changes
1	22BAP03	Data Analysis and Business Modelling	20%
2	22BAX31	Digital and Media Marketing	100%
3	22BAX32	Consumer Behavior	100%
4	22BAX33	Behaviour Finance	100%
5	22BAX34	Tech in Financial Services	100%
6	22BAX35	Compensation Management	100%
7	22BAX36	Performance Management System	100%
8	22BAX37	Analytics using Python	100%
9	22BAX38	Artificial Intelligence and Machine Learning	100%
10	22BAX39	Lean Manufacturing	100%
11	22BAX40	Six Sigma	100%
12	22BAX41	Design Thinking	100%
13	22BAX42	Entrepreneurship and Innovation	100%
Average			94%

  
Dr. V. Manimegalai  
Professor & Head

Department of Master of Business Administration  
Nandha Engineering College (Autonomous)  
Erode - 638 052, Tamil Nadu.

**22BAP03 - DATA ANALYSIS AND BUSINESS MODELING**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>

**PRE REQUISITE : NIL****Course Objective**

- To have hands on experience on decision modeling
- To interpret data by identifying relationship between variables
- To carry out data analysis and statistical analysis.
- To develop expertise in describing data process management , hypothesis testing and model building
- To effectively visualize the data using analytical tools

**Course Outcomes**  
The Student will be able to

**Cognitive Level**

CO1	Apply about the nature of data and conducting hypothesis testing using various data analysis technique.	Ap
CO2	Analyze the relationship between variables using data analytical tools.	An
CO3	Forecasting in real time business world using analytical tools	Ap
CO4	Demonstrate risk and sensitivity analysis and portfolio selection based on business data.	An
CO5	Identify and summarize networking, inventory models and queuing theory using data analytical tools.	C

S.NO	EXP.NO	DETAILS OF EXPRIMENTS	PERIODS
1	1	Excel advance functions (VLOOKUP,HLOOKUP,SUMIF,SUMIFS)	4
2	2	Excel advance functions	4
3	3	(COUNTIF,COUNTIFS,IF,IFERROR,DCOUNT)	4
4	4	Descriptive statistics using Excel	4
5	5	Forecasting using Excel	4
6	6	Pivot table	4
7	7	Introduction to SPSS	4
8	8	Correlation using SPSS	4
9	9	Regression using SPSS	4
10	10	Chi Square Test using SPSS	4
11	11	Frequency using SPSS	4
12	12	ANOVA using SPSS	4
13	13	T-Test using SPSS	4

14	14	Assignment problem using POM	4
15	15	Linear Programming using POM	4
<b>TOTAL PERIODS</b>			<b>60</b>

#### REFERENCES

1. Hansa Lysander Manohar, "Data Analysis and Business Modeling using Microsoft Excel" PHI, 2017.
2. Wallace Wang, "Microsoft Office 2019 For Dummies", 1st Edition, Wiley, New Delhi, 2018.
3. David M. Levine et al, "Statistics for Managers using MS Excel", 6<sup>th</sup> Edition, Pearson, 2010.
4. Ellan F. Monk, Joseph A. Brady, Gerard S. Cook, "Problem - Solving Cases in Microsoft Access and Excel", 12<sup>th</sup> Edition, Cengage Learning, New Delhi, 2015.

#### Software Required:

- ❖ MS Office.
- ❖ TORA.
- ❖ SPSS.

#### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs/ POs	PO 1	PO 2	PO 3	PO 4	PO 5
CO1	3	3	2	3	3
CO2		2		3	
CO3	3				3
CO4			3		
CO5		2			
CO(W.A)	3	2.3	2.5	3	3

**22BAX31- DIGITAL AND SOCIAL MEDIA MARKETING**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
3	0	0	3

**PRE-REQUISITE: NIL****Course Objective**

- To understand about the importance of digital marketing in today's rapidly changing business environment.
- To provide knowledge on how digital marketing can be utilised by organisations and how its effectiveness can have measured.
- To understand about the key elements of a display advertisement.
- To provide knowledge on effectiveness of a social media marketing.
- To acquire knowledge in common Social Media Analytics.

<b>Course Outcomes</b> The Student will be able to		<b>Cognitive Level</b>	<b>Weightage of COs in End Semester Examination</b>
CO1	Apply fundamental digital marketing concepts to real-world scenarios.	Ap	30%
CO2	Develop effective advertising campaigns that drive value and align with organizational leadership goals.	An	30%
CO3	Create effective strategies to improve website visibility and creative thinking in SEO.	C	20%
CO4	Design effective social media marketing strategies across multiple platforms and develop skills to analyze social media data and derive actionable insights.	E	20%
CO5	Engage independently and collectively assess consumer buying behavior, social media analytics and commit to lifelong learning and staying updated with digital marketing trends.	Ap	Internal Assessment

**UNIT I -INTRODUCTION****(9)**

Understanding Consumer behaviour - Concepts, Significance, Consumer and Customers Consumption, Consumer orientation, Interpretive and Quantitative approaches - Foundations of Consumer Behaviour and Consumer Research - Consumer Decision making process and decision making roles

**UNIT II -INTERNAL INFLUENCES****(9)**

Influences on consumer behavior - Motivation - Perception - Attitudes and Beliefs - Learning and Experience - Personality & Self Image.

**UNIT III - EXTERNAL INFLUENCES****(9)**

Socio-Cultural, Cross Culture - Family group - Reference group - Communication - Influences on Consumer behavior - Branding of products by means of media and hoardings.

**UNIT IV - CONSUMER BEHAVIOR MODELS****(9)**

Traditional and Contemporary Consumer behaviour model for Individual and industrial buying behaviour and decision making - Cultural Influences on Consumer Behaviour (case studies from diverse geographical regions)

**UNIT V -PURCHASE DECISION PROCESS****(9)**

Consumer decision making process in the network era - 3 WIN formula - Alternative views on Consumer Behaviour - e-digital transformation - On-line Buyer Behaviour - Diffusion and Adoption.

**TOTAL (L:45) = 45 PERIODS****TEXT BOOKS:**

1. Leslie Lazar, Schiffman G, Kanuk, "Consumer Behaviour", 12th Edition, Pearson Education, Noida, 2021.
2. Leon G Schiffman, Joseph Wisemblit, S Ramesh Kumar, Consumer Behaviour, 12th edition, Pearson, 2018.

**REFERENCES:**

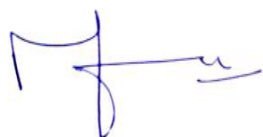
1. Andrew J. Smith, "Consumer Behaviour and Analytics", 2nd Edition, Routledge, USA, 2024.
2. Hawkins, Motherbaugh, Mookerjee, "Consumer Behaviour: Building Marketing Strategy", 13th Edition, McGraw Hill Education, New Delhi, 2023.
3. Consumer Behavior: Buying, Having, and Being" by Michael R. Solomon, 14th Edition, , Pearson Education, Noida, 2023.
4. David L. Loudon, Albert J, Della Bitta, "Consumer Behaviour", 4th Edition, McGraw Hill Education, New Delhi, 2017.
5. Ramesh Kumar S., "Consumer Behaviour: The Indian Context (Concepts and Cases)", 2nd Edition, Pearson Education, Noida, 2017.

**REFERENCE JOURNALS:**

1. Journal of Consumer Research
2. Journal of Marketing

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs/ POs	POs				
	1	2	3	4	5
1	3				
2			2		
3					3
4		3			
5				1	
<b>CO (W.A)</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>3</b>



**22BAX32-CONSUMER BEHAVIOUR**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
3	0	0	3

**PRE-REQUISITE: NIL****Course Objective**

- To understand the concept of Consumer behavior and its applications in purchase decisions.
- To educate students on Consumer behaviour with internal influences.
- To enable students in familiarized about consumer decision making process based external influences.
- To understand about consumer behaviour models for Individual and industrial buying behaviour and decision making.
- To comprehend on purchase decision process with changing consumer behaviour.

**Course Outcomes**

The Student will be able to

**Cognitive Level****Weightage of COs in End Semester Examination**

CO1	Apply Knowledge of consumer behavior principles, theories, concepts and techniques to solve business problems.	Ap	40%
CO2	Classify the different consumer behaviour and their impact on purchasing.	An	20%
CO3	Develop critical thinking skills to identify issues and resolve it.	An	20%
CO4	Propose the effectiveness of various advertisement and promotions and their attempts to influence the behaviors of individuals across various aspects of business.	C	20%
CO5	Engage in independent study as a member of a team and asses the consumer buying behavior with the help of a course mini project/assignment.	Ap	Internal Assessment

**UNIT I - INTRODUCTION****(9)**

Understanding Consumer behaviour - Concepts, Significance, Consumer and Customers Consumption, Consumer orientation, Interpretive and Quantitative approaches - Foundations of Consumer Behaviour and Consumer Research - Consumer Decision making process and decision making roles

**UNIT II - INTERNAL INFLUENCES****(9)**

Influences on consumer behavior - Motivation - Perception - Attitudes and Beliefs - Learning and Experience - Personality & Self Image.

**UNIT III - EXTERNAL INFLUENCES****(9)**

Socio-Cultural, Cross Culture - Family group - Reference group - Communication - Influences on Consumer behavior - Branding of products by means of media and hoardings.

**UNIT IV - CONSUMER BEHAVIOR MODELS****(9)**

Traditional and Contemporary Consumer behaviour model for Individual and industrial buying behaviour and decision making - Cultural Influences on Consumer Behaviour (case studies from diverse geographical regions)

**UNIT V -PURCHASE DECISION PROCESS****(9)**

Consumer decision making process in the network era - 3 WIN formula - Alternative views on Consumer Behaviour - e-digital transformation - On-line Buyer Behaviour - Diffusion and Adoption.

**TOTAL (L:45) = 45 PERIODS**

**TEXT BOOKS:**

1. Leslie Lazar, Schiffman G, Kanuk, "Consumer Behaviour", 12th Edition, Pearson Education, Noida, 2021.
2. Leon G Schiffman, Joseph Wisemblit, S Ramesh Kumar, Consumer Behaviour, 12th edition, Pearson, 2018

**REFERENCES:**

1. Andrew J. Smith, "Consumer Behaviour and Analytics", 2nd Edition, Routledge, USA, 2024.
2. Hawkins, Motherbaugh, Mookerjee, "Consumer Behaviour: Building Marketing Strategy", 13th Edition, McGraw Hill Education, New Delhi, 2023.
3. Consumer Behavior: Buying, Having, and Being" by Michael R. Solomon, 14th Edition, , Pearson Education, Noida, 2023.
4. David L. Loudon, Albert J, Della Bitta, "Consumer Behaviour", 4th Edition, McGraw Hill Education, New Delhi, 2017.
5. Ramesh Kumar S., "Consumer Behaviour: The Indian Context (Concepts and Cases)", 2nd Edition, Pearson Education, Noida, 2017.

**REFERENCE JOURNALS:**

1. Journal of Consumer Research
2. Journal of Marketing

<b>Mapping of Course Outcomes (COs) with Programme Outcomes (POs)</b>					
<b>COs/ POs</b>	<b>POs</b>				
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>1</b>	3				
<b>2</b>			2		
<b>3</b>					3
<b>4</b>		3			
<b>5</b>				1	
<b>CO (W.A)</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>3</b>

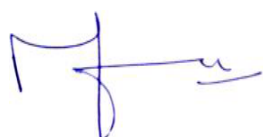
<b>22BAX33-BEHAVIORAL FINANCE</b>					
		<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>PREREQUISITE : NIL</b>					
<b>Course Objective</b>	<ul style="list-style-type: none"> <li>To Gain foundational knowledge of behavioral finance principles and concepts.</li> <li>To Identify and Understand Systematic Behavioral Factors Influencing Investment Behavior.</li> <li>To enrich students' understanding of various biases and paradoxes affecting financial decision-making.</li> <li>To understand the behavioral factors driving arbitrage strategies and decisions.</li> <li>To familiarize students with the principles and practices of behavioral corporate finance.</li> </ul>				
<b>Course Outcomes</b> The Student will be able to		<b>Cognitive Level</b>	<b>Weightage of COs in End Semester Examination</b>		
CO1	Apply the concepts and understand the significance of behavioral finance	AP	30%		
CO2	Apply a systematic approach to predict how investors might behave in response to various corporate decisions.	AP	20%		
CO3	Analyze various behavioral theories and decision biases that affect investor behavior.	AN	20%		
CO4	Assess and evaluate the impact of behavioral factors on investment decisions.	E	20%		
CO5	Evaluate the risks associated with arbitrage strategies within the context of behavioral finance.	E	10%		

<b>UNIT I - INTRODUCTION TO BEHAVIORAL FINANCE</b>	<b>(9)</b>
Introduction, Traditional vs. Behavioral Theory, The Decision Making Process and Behavioral Biases, Limits to Arbitrage	
<b>UNIT II - EFFICIENT MARKET HYPOTHESIS</b>	<b>(9)</b>
Challenges to Market Efficiency, Small Firm Effect, Momentum Vs Reversal, Noise Trader Risk in Financial Market, Attitude to Risk, Expected Utility, Mental Accounting.	
<b>UNIT III - DECISION MAKING THEORIES &amp; BIASES</b>	<b>(9)</b>
Prospect Theory, SP/A Theory, Behavioral Portfolio Theory, Bayesian decision making - cognitive biases - forecasting biases, Excessive Risk Taking, Excessive Volatility, Loss Aversion, Gamblers' Fallacy.	
<b>UNIT IV - ARBITRAGEURS</b>	<b>(9)</b>
Definition of arbitrageur, Long-short trades, Risk vs. Horizon, Transaction costs and short-selling costs Fundamental risk, Noise-trader risk, Professional arbitrage, Destabilizing informed trading	
<b>UNIT V - BEHAVIORAL CORPORATE FINANCE</b>	<b>(9)</b>
Supply of securities and firm investment characteristics (market timing, catering) by rational firms - Empirical Data on Dividend Presence or Absence, Ex-Dividend Day Behavior. Timing of Good and Bad Corporate News Announcement. Systematic Approach of Using Behavioral Factors in Corporate Decision-Making.	
<b>TOTAL (L:45) = 45 PERIODS</b>	

<b>TEXT BOOKS:</b>
<ol style="list-style-type: none"> <li>Kent Baker, H, Greg Filbeck, and John R. Nofsinger, "Behavioral Finance: What Everyone Needs to Know®", 1st Edition, Oxford University Press, New Delhi, 2019.</li> <li>Prasanna Chandra, "Behavioural Finance", 2nd Edition, McGraw Hill Education, New Delhi, 2020.</li> </ol>
<b>REFERENCES:</b>
<ol style="list-style-type: none"> <li>Ranjitsingh, "Behavioural Finance", 2nd Edition, PHI Learning, New Delhi, 2019.</li> <li>Lucy F.Ackert and Richard Deaves, "Understanding Behavioral Finance", 3rd Edition, Cengage Learning, New Delhi, 2019.</li> <li>HershShefrin, "Behavioral Corporate Finance", 3rd Edition, McGraw Hill Education, New Delhi, 2019.</li> <li>The Wall Street Journal, Bloomberg, CNN Money</li> </ol>



<b>Mapping of Course Outcomes (COs) with Programme Outcomes (POs)</b>					
<b>COs/ POs</b>	<b>POs</b>				
	<b>PO1</b>	<b>PO 2</b>	<b>PO 3</b>	<b>PO4</b>	<b>PO5</b>
<b>CO1</b>	3				
<b>CO2</b>	3				
<b>CO3</b>			1	3	
<b>CO4</b>		2	1	3	
<b>CO5</b>		2			2
<b>CO(W.A)</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>



**22BAX34 - TECH IN FINANCIAL SERVICES**

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>

**PREREQUISITE : NIL****Course Objective**

- To educate students on the significance and impact of the fintech ecosystem.
- To equip students with knowledge about the significance of fintech and the risks associated with it.
- To expose students to the concepts and operations involved in digital payments.
- To gain knowledge on driving change in business models and customer Interfaces.
- To explore the impact of new technologies on the financial services Industry.

**Course Outcomes**

The Student will be able to

**Cognitive Level****Weightage of COs in End Semester Examination**

CO1	Apply Fintech Strategy, Products, Policy, and Planning Concepts.	AP	20%
CO2	Apply block chain technology and Fintech processes, and analyze their impact within the financial services sector.	AP	20%
CO3	Apply and Analyze the Impact of Digital Payments and Fintech Analytics.	AN	20%
CO4	Analyze and evaluate the risks associated with Fintech in the financial services industry.	E	20%
CO5	Develop competitive and strategic frameworks for Fintech start-ups and established incumbents in project development.	C	20%

**UNIT I - FIN-TECH ECO SYSTEM****(9)**

Overview of Fin-Tech - Ecosystem Valuation and Fundraising of FinTech firms - FinTech Payment Ecosystem - Lending Tech: Opportunities & Challenges - Insurance tech-Digital Disruption in Insurance Sector.

**UNIT II - FIN TECH AND ASSOCIATED RISKS****(9)**

Technology as Enabler of Regulation -FinTech& Society - Cyber Risk in Data - Centric Financial System - Operational Risk and its Impact in FinTech - Risk Associated with Payment, Lending and Supply Chain Financing - Credit Risk Modeling and Alternate Approaches

**UNIT III - DIGITAL PAYMENTS AND OPERATIONS****(12)**

Evolution from credit card to Central Bank Digital Currency, Bank Digital Currency - B2B, B2C, C2C payment mechanisms, EMV, NFC, Tokenization - Mobile wallet, UPI, QR code Cross border digital payments - Payment platforms & ecosystem - Open and Neo banking, - National & international case studies.

**UNIT IV - PROJECT DEVELOPMENT IN FINTECH****(9)**

FinTech Venture Management and Entrepreneurship: Creating FinTech Business Plan - Entrepreneurial Finance Fin-tech - Project Leadership Innovation and Creative Disruptions in Fin-Tech.

**UNIT V -TECH INNOVATION IN FINANCIAL SERVICES****(6)**

Disruptive financial technologies - FinTech in Financial services - Crypto Assets and Cryptocurrencies - Fundamental Analysis and Trading Strategies for Crypto Markets.

**TOTAL (L:45) = 45 PERIODS****TEXT BOOKS:**

1. Susanne Chishti and Janos Barberis, "The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries", Wiley Publication Edition I, 2021, ISSN : 9781119218876
2. Kartik Swaminathan, "3F: Future Fintech Framework", Notion Press, ISSN : 978-1637147238

**REFERENCES:**

1. Peter S. Rose and Sylvia C. and Hudgins, Bank Management and Financial Services, Tata McGraw Hill, 9th Edition, New Delhi, 2018
2. Ross MccGill, "Technology Management in Financial Services", Palgrave Macmillan, ISSN : 978-0230006799

<b>Mapping of Course Outcomes (COs) with Programme Outcomes (POs)</b>					
<b>COs/ POs</b>	<b>POs</b>				
	<b>PO1</b>	<b>PO 2</b>	<b>PO 3</b>	<b>PO4</b>	<b>PO5</b>
<b>CO1</b>	3				
<b>CO2</b>	3				
<b>CO3</b>		2		3	
<b>CO4</b>				3	
<b>CO5</b>			3		2
<b>CO(W.A)</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>

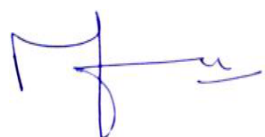
<b>22BAX35-COMPENSATION MANAGEMENT</b>					
		<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>PRE REQUISITE : NIL</b>					
<b>Course Objective</b>	<ul style="list-style-type: none"> <li>To understand the compensation process from different perspectives.</li> <li>To appraise compensation strategies for gaining competitive advantage.</li> <li>To comprehend the principles and theories behind performance-related compensation.</li> <li>To gain comprehensive knowledge of the legal and regulatory frameworks that governs compensation practices.</li> <li>To understand the components and complexities of executive compensation packages.</li> </ul>				
<b>Course Outcomes</b> The Student will be able to		<b>Cognitive Level</b>	<b>Weightage of COs in End Semester Examination</b>		
CO1	Apply the concepts of compensation system in the organizations.	Ap	30%		
CO2	Analyse the economic, legal, strategic and ethical aspects of pay systems in any industry and organizations.	An	20%		
CO3	Analyse the role of government and taxation process related to compensation.	An	30%		
CO4	Design a compensation package for employees of different level and sectors.	C	20%		
CO5	Develop strategies to manage compensation across different countries and regions.	C	Internal Assessment		

<b>UNIT I- INTRODUCTION</b>	<b>(7)</b>
Compensation - Definition - objectives- Importance of Compensation Management- conceptual framework of compensation management-principles of compensation formulation-Types of compensation.	
<b>UNIT II - COMPENSATION PLANNING ANDEVALUVATION</b>	<b>(9)</b>
Compensation strategies - contextual similarities and differences- Developing a total compensation strategy - Competitive Advantage - Job evaluation systems, the compensation structure- Wage and salary surveys, the wage curve, pay grades and rate ranges, preparing salary matrix, fixing pay, significant compensation issues.	
<b>UNIT III - PERFORMANCE MANAGEMENT AND COMPENSATION STRUCTURE</b>	<b>(11)</b>
Performance management system (PMS)-performance objectives - indicators- standards and metric - effective performance modeling-dimensions of performance- Designing Pay for Performance Plan. Team Compensation - Gain Sharing Incentive Plan - Enterprise Incentive Plan - Profit Sharing Plan- ESOPs	
<b>UNIT IV - LEGALIZATION AND COMPENSATION</b>	<b>(9)</b>
The legislative process - Payment of Wages Act 1936, EmployeesInsurance Act 1948, Workers Compensation Act 1923, EmployeesProvident Fund Act 1952.	
<b>UNIT V - EXECUTIVE AND INTERNATIONAL COMPENSATION</b>	<b>(9)</b>
Executive compensation - concepts and elements, Quantitative tools, Expatriate Compensation and its Objectives, Elements of Expatriate's Compensation Package, Laws relating compensation.	
<b>TEXT BOOKS :</b>	
1.Compensation- Milkovich G. T, Barry Gerhart, 14th edition McGraw- Hill, 2023.	
2. Richard.I. Henderson: Compensation Management In Knowledge Based World - Prentice Hall, 2007.	
3. Compensation Management- by Dipak Kumar Bhattacharyya	
4. Goel, Dewakar,"Performance Appraisal and Compensation Management: A Modern Approach" - PHI Learning, ThirdEdition.	

**REFERENCES:**

- 1.Thomas.P. Plannery, David.A. Hofrichter&Paul.E.Platten: People Performance & Pay - Free Press
- 2.Compensation Management in Knowledge - based World 10th Edition (English, Paperback, Richard I. Henderson), PEARSON.

<b>Mapping of Course Outcomes (COs) with Programme Outcomes (POs)</b>					
<b>COs/ POs</b>	<b>POs</b>				
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>1</b>	3				
<b>2</b>			3		
<b>3</b>	3				1
<b>4</b>				2	1
<b>5</b>		2	3		
<b>CO (W.A)</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>



**22BAX36-PERFORMANCE MANAGEMENT SYSTEM**

<b>L</b>	<b>T</b>	<b>P</b>
<b>3</b>	<b>0</b>	<b>0</b>

**PRE REQUISITE : NIL**

**Course Objective**

- To discuss the various dimensions of performance management and the role of appraisals in the current scenario.
- To examine the role of Key Performance Areas (KPA's) in performance planning and analyze the process of performance analysis.
- To investigate the factors affecting the implementation of performance management systems and identify potential pitfalls.
- To set the right expectations for managers and employees
- To develop Effective communication between individuals and teams.

<b>Course Outcomes</b> The Student will be able to		<b>Cognitive Level</b>	<b>Weightage of COs in End Semester Examination</b>
CO1	Apply various performance appraisal methods.	Ap	20%
CO2	Engage in independent study and make an oral presentation on the performance Management System.	Ap	20%
CO3	Analyze strategies, techniques, and frameworks to understand their effectiveness in managing and improving team performance in practical situations.	An	30%
CO4	Develop various employee development plans	C	20%
CO5	Assess and evaluate performance of employees.	E	10%

<b>UNIT I - INTRODUCTION TO PERFORMANCE MANAGEMENT</b>	<b>(9)</b>
Role of Performance in Organizations, What are Performance Management, Dimensions of Performance Management, and Role of Appraisals in Performance management, Performance Management in today's scenario..	
<b>UNIT II - PERFORMANCE MANAGEMENT PROCESS</b>	<b>(9)</b>
Relevance of Objectives in organizations and Performance management, Organizational and Individual Performance in Performance Management, Process of Performance Management, Agile Performance Management.	
<b>UNIT III - PERFORMANCE PLANNING AND ANALYSIS</b>	<b>(9)</b>
What is Performance Planning, Performance Planning and Performance Analysis, KPAS and Performance Planning, Components of Performance Planning, Objectives of Performance Analysis, Performance Analysis Process.	
<b>UNIT IV - PERFORMANCE REVIEW AND DISCUSSION</b>	<b>(9)</b>
Significance of Performance Review in Performance Management, Process of Performance Review, Performance Ratings: Factors affecting appraisals, Methods and Errors, Reducing Rater Biases. Performance Review Discussions: Objectives, Requisites, Process, Role of Mentoring and Coaching in Performance Review Discussions	
<b>UNIT V - IMPLEMENTING PERFORMANCE MANAGEMENT SYSTEM</b>	<b>(9)</b>
Operationalizing change through Performance Management Process, Factors affecting Implementation, Pitfalls of Implementation, Experiences in Performance Management: Traditional Practices in the Industry, Recent approaches in practice, Case studies of Performance Management Systems in select organizations	

**TEXT BOOKS :**

1. Performance Appraisal and Management (Kevin R Murphy, 2018)
2. Herman Aguinis, "Performance Management", Pearson Education,
3. Compensation Management- by Dipak Kumar Bhattacharyya

**REFERENCES:**

1. Kohli A S and Deb T, "Performance Management", Oxford University Press, 2008.
2. Rao, T.V., "Performance Management and Appraisal Systems HR Tools for Global Competitiveness" Response Books, New Delhi, 2007
3. Chadha Prem, "Performance Management - It's about Performing - Not just Appraising", Macmillan India Limited, New Delhi, 2003.

Mapping of Course Outcomes (COs) with Programme Outcomes (POs)					
COs/ POs	POs				
	1	2	3	4	5
1	3				
2		3			
3			2		
4					2
5				1	1
<b>CO (W.A)</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>3</b>

<b>22BAX37-BUSINESS ANALYTICS USING PYTHON</b>				
	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>PRE REQUISITE : NIL</b>				
<b>Course Objective:</b>	<ul style="list-style-type: none"> <li>To understand the emerging role of analytics in business organizations</li> <li>To use data ,methods ,and fact-based management to support and improve decision making</li> <li>To acquire proficiency in applying analytical techniques suitable for unstructured data</li> <li>To evaluate the performance and validity of the models, ensuring they provide reliable insights and solutions.</li> <li>To emphasis applications, concepts and interpretation of results, rather than programming and calculations.</li> </ul>			
<b>Course Outcomes</b> The Student will be able to		<b>Cognitive Level</b>	<b>Weightage of COs in End Semester Examination</b>	
CO1	Apply the concepts and methods relating to business analytics	Ap	40	
CO2	Interpret results by identifying appropriate course of action and create viable business solutions.	Ap	20	
CO3	Analyze unstructured data to support business operations.	An	20	
CO4	Visualize and synthesize data using data visualization tools and techniques.	E	20	
CO5	Design and build models to solve a managerial situation or a business problem.	C	20	

<b>UNIT I - Introduction</b>	<b>(9)</b>
Introduction to machine learning -Artificial intelligence- Practical applications of machine learning - Deep learning- Dimensionality Reduction Techniques- Factor Analysis	
<b>UNIT II - Supervised Machine Learning Techniques</b>	<b>(9)</b>
Conjoint analysis - Full/Fractional design, choice cards, attribute importance- Linear Discriminant Analysis - Fisher's method-Mahalanobis method- Standardized and unstandardized coefficients- structured coefficients- Baye's theorem	
<b>UNIT III - Advanced Supervised Machine Learning Techniques</b>	<b>(9)</b>
Random Forest- Out of bag error rate , variable importance, tuning hyper parameters, SVM- hyperplanes and support vectors, SVM model building . Ensemble Methods-bagging, boosting, adaboost, gradient boosting, extreme gradient boosting, bias variance trade off.	
<b>UNIT IV- Artificial Neural Networks</b>	<b>(9)</b>
Neural Networks- Neural Network model building - Perceptron - Bias -Activation Function - Hidden layers- Forward propagation - Backward propagation - Introduction to convolutional Neural Network and Reinforcement learning	
<b>UNIT V - Time Series Analysis</b>	<b>(9)</b>
Visualizing the time series - Components of times series -Stationary of the Data - Differencing the Times series- Time series models -Simple Exponential Smoothing - Double Exponential Smoothing-Holts model- additive model, multiplicative model-Auto Regressive Integrated Moving average Model building - Auto ARIMA model	
<b>TOTAL (L) = 45 PERIODS</b>	

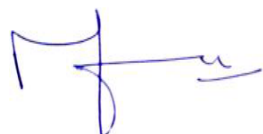


**REFERENCES:**

1. Uma Maheswari, Sujatha, "Introduction to Data Science: Practical approach with R and Python", Wiley, 2021
2. Dinesh Kumar, "Business Analytics: The Science of Data Driven decision making", 2nd Edition Wiley , 2021
3. Manaranjan Pradhan,Dinesh Kumar, "Machine Learning using Python", Wiley, 2019
4. Sanjiv Jaggia, Kevin Lertwa,"Business Analytics: Communicating with numbers | 2nd Edition" 17 May 2023

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs/ POs	PO1	PO 2	PO 3	PO4	PO5
CO1	3	-	-	-	-
CO 2	2	3			
CO 3		2		3	
CO 4		2	3		3
CO 5			2		3
CO(W.A)	2.5	2.3	2.5	3	3



**22BAX38- Artificial Intelligence and Machine Learning**

	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>

**PRE REQUISITE : NIL**

<b>Course Objective:</b>	<ul style="list-style-type: none"> <li>To apply learned concepts to analyze and solve problems related to Machine learning and Artificial Intelligence</li> <li>To understand the importance of data quality, model interpretation, and ethical considerations in deploying classification models across various domains</li> <li>To equip students with the ability to devise effective strategies using advanced machine learning techniques</li> <li>To understand the interpretability and ethical implications associated with deploying Artificial neural networks in real-world applications.</li> <li>To understand the implications of uncertainty and variability in predictive outcomes.</li> </ul>
--------------------------	--

<b>Course Outcomes</b> The Student will be able to		<b>Cognitive Level</b>	<b>Weightage of COs in End Semester Examination</b>
CO1	Apply various concepts of machine learning and artificial intelligence.	Ap	40
CO2	Construct dimensionality reduction techniques like Factor Analysis to reduce dataset complexity.	Ap	20
CO3	Assess data stationarity and perform differencing on time series data.	An	20
CO4	Explore ethical issues in machine learning, including bias, fairness, and transparency.	An	20
CO5	Build and evaluate neural network models for various business applications.	E	20

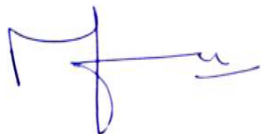
<b>UNIT I - Introduction</b>	<b>(9)</b>
Introduction to machine learning -Artificial intelligence- Practical applications of machine learning - Deep learning- Dimensionality Reduction Techniques- Factor Analysis	
<b>UNIT II - Supervised Machine Learning Techniques</b>	<b>(9)</b>
Conjoint analysis - Full/Fractional design, choice cards, attribute importance- Linear Discriminant Analysis - Fisher's method-Mahalanobis method- Standardized and unstandardized coefficients- structured coefficients- Baye's theorem	
<b>UNIT III - Advanced Supervised Machine Learning Techniques</b>	<b>(9)</b>
Random Forest- Out of bag error rate , variable importance, tuning hyper parameters, SVM- hyperplanes and support vectors, SVM model building . Ensemble Methods-bagging, boosting, adaboost, gradient boosting, extreme gradient boosting, bias variance trade off.	
<b>UNIT IV- Artificial Neural Networks</b>	<b>(9)</b>
Neural Networks- Neural Network model building - Perceptron - Bias -Activation Function - Hidden layers- Forward propagation - Backward propagation - Introduction to convolutional Neural Network and Reinforcement learning	
<b>UNIT V - Time Series Analysis</b>	<b>(9)</b>
Visualizing the time series - Components of times series -Stationary of the Data - Differencing the Times series- Time series models -Simple Exponential Smoothing - Double Exponential Smoothing-Holts model- additive model, multiplicative model-Auto Regressive Integrated Moving average Model building - Auto ARIMA model	
<b>TOTAL (L) = 45 PERIODS</b>	

**REFERENCES:**

1. Manaranjan Pradhan, Dinesh Kumar, "Machine Learning using Python", Wiley, 2019
2. Aurélien Géron, "Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow". II Edition, 2019
3. Andrew Ng, "Machine Learning Yearning", 2018
4. "Artificial Intelligence: A Guide for Thinking Humans" by Melanie Mitchell, 2019
5. Deepak Khemani, "A First Course in Artificial Intelligence", McGraw Hill Education (India) Private Limited, New Delhi.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs/ POs	PO1	PO 2	PO 3	PO4	PO5
CO1	3				
CO 2	2	3			
CO 3		3	2		3
CO 4		2		3	
CO 5			3		3
CO(W.A)	2.5	2.7	2.5	3	3



<b>22BAX39-LEAN MANUFACTURING</b>					
		<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>PREREQUISITE : NIL</b>					
<b>Course Objective</b>		<ul style="list-style-type: none"> <li>To gain the knowledge on lean manufacturing concepts for improving productivity in business operations.</li> <li>The students will gain in terms of quality control and process improvement within a manufacturing context.</li> <li>To disseminate information about the kanban system and cost cutting</li> <li>To transfer visual system expertise in order to concentrate on the process and promote enhancements.</li> <li>To provide information on a methodical approach to applying lean manufacturing techniques.</li> </ul>			
<b>Course Outcomes</b> The Student will be able to		<b>Cognitive Level</b>	<b>Weightage of COs in End Semester Examination</b>		
CO1	Apply the key requirements and concepts of lean manufacturing for improving productivity in business operations.	Ap	40%		
CO2	Identify and analyze the potential enterprise issues associated while implementing lean principles for industries.	An	40%		
CO3	Select and design appropriate primary tools and techniques for controlling quality and improving manufacturing process.	E	10%		
CO4	Design appropriate secondary tools and techniques for improving productivity and customer satisfaction.	E	10%		
CO5	Implement and execute lean practices and culture to manufacturing and service industry.	C	Internal Assessment		

<b>UNIT I-INTRODUCTION TO LEAN</b>	<b>(9)</b>
Evolution of Lean Manufacturing - Lean Principles - Framework of Lean Processes - Lean Production - 7 hidden wastes - Concepts of Cycle time and Takt time - Process mapping - The Lean Enterprise - Lean and Green Manufacturing-Toyato production system.	
<b>UNIT II - PRACTICES OF JUST IN TIME INVENTORY AND LEAN PRODUCTION</b>	<b>(9)</b>
Just-in-Time Inventory - Characteristics of JIT - Lean Production - Pull production -Toyota Production System - Heijunka - Point of use storage -Cellular Layout - Focused factory - Supermarket - Case studies- Industry 5.0.	
<b>UNIT III - LEAN CONCEPTS AND TOOLS</b>	<b>(9)</b>
Kaizen events - 5S Housekeeping - Poka Yoke - SMED- Kanban system -Visual workplace - One-piece flow - Gemba - Andon - Shadow Board -Jidoka - Catch Ball - FMEA - Zero defects - Design of Experiments - Root Cause Analysis - Standardized work - Value Stream Mapping.	
<b>UNIT IV - LEAN MANUFACTURING THROUGH TPM</b>	<b>(9)</b>
Principles of TPM - 8 TPM Pillars - JishuHozen - Planned and Quality Maintenance- Kobetsu Kaizen - 6 Big Losses - TPM in office functions - Overall Equipment Efficiency - OEE Goals - TPM implementation.	
<b>UNIT V - LEAN IN SERVICE SECTOR</b>	<b>(9)</b>
Lean wastes in service - Financial sector - Marketing sector - Retailing -Health care & Hospitality sector - Lean office - Lean suppliers - Internet of Things - IoT for Lean Production	
<b>TOTAL (L:45) = 45 PERIODS</b>	

<b>TEXT BOOKS:</b>
3. S. R. Devadasan, "Lean and Agile Manufacturing", PHI, 2021. 4. Arun Desai, "Lean Manufacturing: Perspectives and Application", IUP,2020.
<b>REFERENCES:</b>
1. Pascal Dennis, "Lean Production Simplified", 3rd Edition, Productivity Press/ CRC Press, London, 2022. 2.Dennis P. Hobbs, "Lean Manufacturing Implementation: A Complete Execution Manual for Any Size Manufacturer", 1st Edition, eBook, Boca Raton: J. Ross Publishing, Incorporated, 2022. 3.Jeffrey Liker, "The Toyota Way", 1st Edition, McGraw Hill Education, New Delhi, 2021. 4.Devadasan S.R., "Lean and Agile Manufacturing", Paperback Edition, PHI Learning, New Delhi, 2020. 5.Goplakrishnan N., "Simplified Lean Manufacture", 1st Edition, PHI Learning, New Delhi, 2019.

<b>Mapping of Course Outcomes (COs) with Programme Outcomes (POs)</b>					
<b>COs</b>	<b>POs</b>				
	<b>PO1</b>	<b>PO 2</b>	<b>PO 3</b>	<b>PO4</b>	<b>PO5</b>
<b>CO1</b>	3	-	-	-	-
<b>CO2</b>	-	2	-	-	-
<b>CO3</b>	-	-	3	-	-
<b>CO4</b>	-	-	-	2	-
<b>CO5</b>	-	-	-	-	1
<b>CO(W.A)</b>	3	2	3	2	1

<b>22BAX40-SIX SIGMA</b>						
			<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
			<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>PREREQUISITE : NIL</b>						
<b>Course Objective</b>	<ul style="list-style-type: none"> <li>To Learn the elements of successful deployment, including personnel requirements and the development of training plans based on training needs analysis.</li> <li>To Emphasize the importance of customer focus in Six Sigma projects.</li> <li>To learn about the analysis and improvement stages of six sigma.</li> <li>To impart the quality control charts</li> <li>To implementing Six Sigma methodologies to enhance quality, efficiency, and customer satisfaction in various business processes, ultimately contributing to their organization's success.</li> </ul>					
<b>Course Outcomes</b> The Student will be able to					<b>Weightage of COs in End Semester Examination</b>	
CO1	Apply the importance of six sigma and training need analysis.		Ap	40%		
CO2	Analysethe stages of six sigma and implement the project measurement at various levels.		An	20%		
CO3	Ability to analysis and improve the stages and assessing the the project failure and success in the organisation.		An	20%		
CO4	Assess the six sigma measurements at various levels of control in the organisation.		An	20%		
CO5	Identify the quality control charts and evaluate the control chart techniques and method of implementation in the organisation.		E	Internal Assessment		

<b>UNIT I - INTRODUCTION TO SIX SIGMA</b>	<b>(9)</b>
Deployment Strategy-Six Sigma- Difference between six sigma and TQM- Elements ofSuccessfuldeployment, Personnel requirement -Training plan -Training needs analysis, Focusing theDeployment-Customer focus-Project selection.	
<b>UNIT II - DEFINE AND MEASURE STAGE</b>	<b>(9)</b>
Define Stage-Objectives-Project Definition-Top level process Definition-Team formation, Measure Stage-Process Definition-Metric Definition-Process base line estimation.	
<b>UNIT III -ANALYSIS AND IMPROVE STAGE</b>	<b>(9)</b>
Analyze stage-Value Stream Analysis-Analyzing the sources of Variation-Determining ProcessDrivers,ImproveStage-DefiningNewProcess-Assessingthebenefitsofproposedsolution-Evaluating Process failure modes-Implementation and verification	
<b>UNIT IV - CONTROL STAGE AND SIX SIGMA MEASUREMENTS</b>	<b>(9)</b>
Control Stage-Standardize on the new Methods-Measure Bottom Line Impact-Document Lessonslearned, Six Sigma Measurements-Converting defect rates to sigma Quality Level Units-RolledThroughput Yield -Six Sigma Relationships- Process Cycle Time.	
<b>UNIT V- CONTROLCHARTS</b>	<b>(9)</b>
Introduction to control chart, Selection of control charts-Variable Control Charts, X&R Charts,-Attribute Control Chart-p, np, u and c	
<b>TOTAL (L:45) = 45 PERIODS</b>	

**TEXT BOOKS:**

1. Paul Keller, "Six Sigma Demystified", Tata Mc Graw Hill, 2022.
2. Forrest W. Breyfogle, John, "Implementing Six Sigma", Wiley & Sons, 2019.
3. Peter S. Pandey, "The Six Sigma Way", S. Chand & Co, 2020.

**REFERENCES:**

1. Jay Arthur, "Lean Six Sigma Demystified", Tata Mc Graw Hill, 2021.
2. Eugene L. Grant, Richard S. Leevenworth, "Statistical Quality Control"-Tata Mc Graw Hill, 2020.
3. Roderick A. Munro and Govindarajan Ramu and Daniel J. Zrymiak, "The Certified Six Sigma Green Belt Handbook", ASQ Quality Press and Infotech Standards India Pvt. Ltd. 2021.
4. T.M. Kubiak and Donald W. Benbow, "The Certified Six Sigma Black Belt Handbook", Pearson Publication, 2020.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	POs				
	PO1	PO 2	PO 3	PO4	PO5
CO1	2	1	2	2	2
CO2					
CO3	2				
CO4				1	
CO5		1	2		
CO(W.A)	2	1	2	1.5	2

**22BAX26-BUSINESSPLAN**

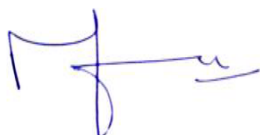
	L	T	P	C
	3	0	0	3
<b>PRE REQUISITE : 22BAB07</b>				

<b>22BAX41 DESIGN THINKING</b>				
	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>PREREQUISITE : NIL</b>				
<b>Course Objective</b>	<ul style="list-style-type: none"> <li>To apply creative techniques to prototype, test ideas, and implement design thinking in real-world scenarios.</li> <li>To equip students with the knowledge and skills in entrepreneurship.</li> <li>To develop an entrepreneurial mindset and effectively navigate the challenges and opportunities in entrepreneurship.</li> <li>To explore the evolution and role of entrepreneurship in economic development, strategic perspectives, government initiatives, and the unique challenges of new ventures.</li> <li>To learn the principles and process of design thinking.</li> </ul>			
<b>Course Outcomes</b> The Student will be able to		<b>Cognitive Level</b>	<b>Weightage of COs in End Semester Examination</b>	
CO1	Apply the process approach to entrepreneurship and identify its role in economic development.	Ap	30%	
CO2	Apply knowledge of internal and external growth strategies and address unique managerial concerns of growing ventures.	Ap	20%	
CO3	Analyze the concepts of business stabilization and building adaptive firms.	An	20%	
CO4	Analyze methods to initiate ventures, including creating new ventures, acquiring established ones, and franchising.	An	20%	
CO5	Evaluate the challenges of new venture startups, develop effective business models, and explore sources of finance and critical factors for new venture development.	E	10%	
<b>Unit - I: Understanding Entrepreneurial Mindset:</b>				<b>(9)</b>
The Evolution of Entrepreneurship, Qualities, Skills, Functions of Entrepreneurs, Types of Entrepreneurs, Approaches to Entrepreneurship, Process Approach, Role of Entrepreneurship in Economic Development.				
<b>UNIT - II: Strategic Perspectives in Entrepreneurship:</b>				<b>(9)</b>
Strategic Planning, Strategic Actions, Strategic Positioning, Business Stabilization, Building the Adaptive Firms, Understanding the Growth Stage, Internal Growth Strategies and External Growth Strategies, Unique Managerial Concern of Growing Ventures.				
<b>UNIT III: Opportunities and Challenges of Entrepreneurship:</b>				<b>(9)</b>
Initiatives by the Government of India to Promote Entrepreneurship, Social and Women Entrepreneurship. Feasibility Analysis, Industry and Competitor Analysis, Formulation of the Entrepreneurial Plan. The Challenges of New Venture Start-ups, Developing an Effective Business Model, Blue and Red Ocean Strategies, Sources of Finance, Critical Factors for New venture Development, Evaluation Process.				
<b>UNIT IV Design Thinking - An Introduction:</b>				<b>(9)</b>
Principles of Design Thinking, Process of Design Thinking, planning a Design Thinking Project, Understanding of the Problem, Problem Analysis, Reformation of the Problem, Empathetic Design Methods.				
<b>UNIT V Prototype, Testing Ideas, Implementing Design Thinking:</b>				<b>(9)</b>
Creativity, Creativity Process, Creativity Techniques, Business Idea, Evaluation of Ideas, Kano Method, Finding Gaps in the Market Place, Prototype, Lean Startup Method, Visualization, Methods to Initiate Ventures, Creating New Ventures, Acquiring an Established Venture, Franchising, Advantages and Disadvantages, Implementing Design Thinking, Agility for Design Thinking.				
<b>TEXT BOOK:</b>				
<ul style="list-style-type: none"> <li>Devayani M. Lal, Design Thinking, Sage Publications, 1e, 2021. Ali J Ahmed, Punita Bhatt, Lain Acton, Entrepreneurship in Developing and Emerging</li> <li>Economies, Sage Publications, 1e, 2019. Christian Mueller- Roterberg, Handbook of Design Thinking</li> <li>Tips and Tools for how to design Thinking, Independently Published, US, 2018. Robert D. Hisrich,</li> <li>Michael P. Peters, Dean A. Shepherd, Entrepreneurship, Mc Graw Hill, 10e,2018. Bruce R. Barringer/</li> </ul>				



- R. Duane Ireland, Entrepreneurship Successfully launching new ventures, 4e, Pearson, 2015.
- D F Kuratko and T V Rao, Entrepreneurship- A South-Asian Perspective, Cengage Learning, Ie, 2012.

<b>Mapping of Course Outcomes (COs) with Programme Outcomes (POs)</b>					
<b>COs/ POs</b>	PO1	PO 2	PO 3	PO 4	PO 5
CO1		2	2		3
CO2	3				2
CO3				3	
CO4					
CO5					
<b>CO (weighted average)</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2.5</b>



<b>22BAX42 ENTREPRENEURSHIP AND INNOVATION</b>				
	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>PREREQUISITE : NIL</b>				
<b>Course Objective</b>	<ul style="list-style-type: none"> <li>To provide with a comprehensive understanding of innovation, intellectual property rights (IPR) and their significance in entrepreneurship.</li> <li>To explore the concepts of invention and creativity, different types of innovation, and the relationship between innovation, market, and intellectual property (IP).</li> <li>To gain knowledge of trademark, copyright, industrial design, and patent laws, and their application in entrepreneurship.</li> <li>To learn IP strategy, including IP valuation and financing options.</li> <li>To incorporate government policies that support entrepreneurship.</li> </ul>			
<b>Course Outcomes</b> The Student will be able to		<b>Cognitive Level</b>	<b>Weightage of COs in End Semester Examination</b>	
CO1	Apply the principles of open innovation and develop an IP strategy for a business scenario.	Ap	30%	
CO2	Apply knowledge of the trademark registration process and the legal framework governing trademark infringement.	Ap	20%	
CO3	Analyze various types of innovation and their impact on market dynamics and intellectual property management.	An	20%	
CO4	Analyze case studies on copyright and industrial design to understand their application in entrepreneurship.	An	20%	
CO5	Develop effective IP strategies for entrepreneurial ventures, incorporating insights from various support mechanisms.	C	10%	

<b>Unit - I Innovation and Entrepreneurship</b>	<b>(9)</b>
Invention and Creativity concepts - Importance - Types of Innovation - Innovation, Market and IP - Open Innovation- IP Strategy.	
<b>UNIT - II - IPR</b>	<b>(9)</b>
Trade Mark and Entrepreneurship: Trade Mark - Types - Trade Market Registration - Trade Mark Infringement - Case Study on Trade Mark.	
<b>UNIT III - Copy right, Industrial Design and Entrepreneurship</b>	<b>(9)</b>
Copyright - Characteristics - Items covered under copyright - Rights of Copyright owner - Copyright Registration and Entrepreneurship - Copyright Infringement - Remedies for Infringement - Industrial Design - Industrial Design in Business - Case Study on Copyright and Industrial Design.	
<b>UNIT IV - Patent and Entrepreneurship</b>	<b>(9)</b>
Patent - Introduction -Rights of a patent - Granting of patent - Drafting of a patent - Patent Infringement - Patent Strategies - Patent and kind of inventions protected by a patent - Case Study on Patent.	
<b>UNIT V - IP Strategy and Entrepreneurship</b>	<b>(9)</b>
IP Valuation - Bank Loan, Insurance - Incubators - Research Parks - Various Government Policies - Entrepreneurship and IP Strategy.	

**TEXT BOOKS:**

1. Sheetal Chopra, "A Book on Indian Patenting System and Patent Agent Examination", 1st Edition, Nation Press, Chennai, 2021.
2. Stavroula Karapapa., "Intellectual Property", 1st Edition, OUP Oxford, 2019.
3. Claive Howell, Benjamin Farrand., "Law Experts: Intellectual Property", 6th Edition, Pearson Education, New Delhi, 2018.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs/ POs	PO1	PO 2	PO 3	PO 4	PO 5
CO1		3			
CO2	3		2		
CO3				2	3
CO4					
CO5					
<b>CO (weighted average)</b>	<b>3.0</b>	<b>3.0</b>	<b>2.0</b>	<b>2.0</b>	<b>3.0</b>

