

ANNA UNIVERSITY, CHENNAI
UNIVERSITY DEPARTMENTS
MASTER OF BUSINESS ADMINISTRATION (FULL TIME)
REGULATIONS – 2023
CHOICE BASED CREDIT SYSTEM

VISION

To be an Iconic Management Institute in the development of competent and socially conscious management professionals.

MISSION

- To focus on developing holistic and specialized management graduates.
- To collaborate with all stake-holders in management education for mutually beneficial outcomes.
- To be a management Institute with a societal perspective.

Program Educational Outcomes

PEO 1 – Employability: To develop students with industry specific knowledge & skills to meet the industry requirements and also join Public sector undertaking through competitive examinations.

PEO 2 - Entrepreneur: To create effective business service owners, with a growth mindset by enhancing their critical thinking, problem solving and decision-making skills.

PEO3 – Research and Development: To instill and grow a mindset that focusses efforts towards inculcating and encouraging the students in the domains of research and development.

PEO 4 – Contribution to Business World: To produce ethical and innovative business professionals to enhance growth of the business world.

PEO 5 – Contribution to the Society: To work and contribute towards holistic development of the society.

Program Outcomes:

PO1: Problem Solving Skill: Application of tools & techniques relevant to management theories and practices in analyzing & solving business issues.

PO2: Decision Making Skill: Application of analytical and critical thinking models for data-driven decision making.

PO3: Ethical Value: Nurture the development of ethical practices in business and work.

PO4: Communication Skill: Be trained in and to practice skills of listening, verbal and non-verbal communications for effective information and knowledge transfer.

PO5: Individual and Team Leadership Skill: Ability to be self-motivated in leading & driving a team towards achievement of organizational goals and contributing effectively to establish industrial harmony.

PO6: Employability Skill: Foster and enhance employability skills through relevant industry subject knowledge.

PO7: Entrepreneurial Skill: Equipped with skills and competencies to become a successful entrepreneur.

PO8: Contribution to Society: Strive towards building and delivering products and services with a social benefit perspective.

PEO – PO MAPPING

	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
PEO 1	3	3	2	3	3	2	1	1
PEO 2	3	3	3	3	2	2	3	2
PEO3	3	3	1	1	2	2	3	2
PEO 4	3	3	3	2	1	2	2	1
PEO 5	2	2	3	2	2	1	2	3

1 – Low, 2 – Medium, 3 – High

Sl.No.	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
SEMESTER - I									
1	Management Principles and Organizational Behavior	0.4	2.4	1.4	2.2	2.6	3	2	1
2	Quantitative Techniques	3	3	-	1	-	2	1	-
3	Marketing Management	2.6	2.6	2	2.4	1.6	2	2.4	2.8
4	Accounting for Managers	2	2.5	1	1	-	2.8	2	0.7
5	Managerial Economics	3	2.6	2	2.4	1.4	2.2	2.2	2.6
6	Legal Systems in Business	-	-	-	0.4	0.4	1.6	1.2	0.4
7	Information Systems for Business	2.2	1.4	1.2	-	1.4	1	0.6	1.8
8	Soft Skills I – Executive Communication	2.8	1.8	2.2	2.6	2	1.4	1.4	2.2
SEMESTER - II									
9	Applied Operations Research	3	3		1	2.2	2.2	1.8	1.8
10	Human Resource Management	-	-	-	0.8	0.6	2.2	1.2	-
11	Research Methods in Business	3	2.6	2.4	1.4	-	2.2	1.2	1.2
12	Operations Management	2.8	3	0.6	1	1.6	3	2	1
13	Financial Management	1	1.5	-	1.4	-	1.4	2.4	-
14	Entrepreneurship Development	-	-	-	0.6	-	0.4	3	1.4
15	Soft Skills II – Community Engagement	-	-	2	-	-	1	1.4	3
16	Soft Skills III – Computing Skills laboratory	3	1	1.6	3	2	1	1	3
SEMESTER - III									
17	Strategic Management	-	0.4	1.6	1	1.2	-	0.6	2.2
18	International Business	1.6	2.2	-	2.6	-	2.6	2.6	1
19	Soft Skills IV – Leadership and Team Building Skills	-	0.6	-	3	2.4	3	3	-
Employability Skills Electives									
20	Corporate Governance	3	2	2.2	2	2	2	1	1.4
21	Micro and Small Business Management	2.8	2.4	2	1.6	2.2	1.6	2.2	1.8
22	Intellectual Property Rights	-	1.4	1.8	1	1.4	3	2.4	1
23	Sustainable Management	3	2.8	1.8	3	2.2	2.4	1.4	2.8
Specialization Courses: Finance Management									
24	Security Analysis and Portfolio Management	3	3	0.6	0.4	0.8	3	2.8	1
25	Merchant Banking and Financial Services	-	1.2	-	1.2	-	2	-	-
26	Derivatives Management	3	3	-	2	-	3	2	1
27	Financial Modelling	3	3	-	-	-	2	2	-
28	Applications of AI and ML in Finance	2	2	-	-	2	2.8	2.8	1

29	Fintech and Block chain applications in Finance	2	2	-	-	1.8	2.8	2.8	1
30	International Financial Management	-	2	-	-	-	1.2	1.6	1
31	Capital and Financial Markets	1.4	1.8	-	-	-	2	2.8	1
Specialization Courses: Marketing Management									
32	Consumer Behaviour and Neural Marketing	1.6	1.8	0.4	0.6	0.2	1.6	0.4	0.4
33	Advertising Management and Sales Promotion	2.6	3	1.4	2	2	1.8	2.8	3
34	Brand Management	3	3	1.6	1.4	0.8	2.8	2.6	2.6
35	Services Marketing	3	3	1.8	1	1	2.8	2.8	2.4
36	Customer Relations Management	0.4	0.6	1	0.4	1.6	1.4	0.4	0.6
37	Retail Marketing	2.33	2.17	2.17	2.33	2.17	1.33	1.83	1.67
38	Digital Marketing	2.8	2.8	1.8	1.4	1.4	1.4	2.2	2.8
39	Marketing Analytics	2.2	1.2	1.6	-	0.4	-	1.8	1.8
Specialization Courses: Human Resource Management									
40	Industrial and Labour Relations	2	1.8	2	2.2	1.6	3	2	1
41	Emotional Intelligence for Managerial Effectiveness	1.6	1.2	2.4	0.6	2.8	3	1	2.4
42	HR Analytics	1.6	1.6	0.4	-	-	2.6	-	-
43	Strategic Human Resource Management	3	1.8	2	2.2	2.2	3	2	1
44	Talent Management	1.4	0.4	0.4	1	1	0.4	0.4	0.6
45	Negotiation and Conflict Management	1	0.4	0.6	0.6	0.6	0.6	0.4	0.4
46	International HRD	0.4	1	-	0.4	0.4	0.4	-	0.4
47	Compensation and Rewards Management	0.4	0.8	-	0.4	-	0.8	0.4	1
Specialization Courses: Systems Management									
48	System Analysis and Design	1.6	1.2	-	0.6	-	2.2	-	-
49	E – Business	-	1.6	0.6	1	0.4	2.2	1	-
50	Internet of Things	2.8	2.6	2.4	2.6	2.4	2.2	2.2	1.8
51	Cloud Computing	2.6	2.4	2.6	2.6	2.4	2.2	2.4	2.2
52	Enterprise Resource Planning	1.6	1.6	0.6	0.4	1.2	0.6	2.4	1.2
53	Software project and quality management	2.8	2.2	2.2	2.6	2.6	2.2	2.6	2.2
54	Data Warehousing	2.8	2.4	2.4	2.4	2.2	2.2	2.2	2.2
55	Deep Learning and Artificial Intelligence	3	2.8	2	3	2.8	2.2	1.4	3
Specialization Courses: Business Analytics									
56	Fundamentals of Business Analytics	2.6	2.6	2.4	2.4	2.6	2.4	1.6	1.8
57	Data Analytics with R Programming	1	1.2	-	0.4	0.6	1.8	1.2	-
58	Business Analytics Using Python	0.6	1.8	-	1	0.8	2	-	-
59	Data Visualization	0.4	2.2	-	0.4	1	0.4	0.6	-
60	Business Intelligence, Big Data, Cloud Computing	2.6	2.4	2.6	2.4	2	2	2.4	1.8
61	Block Chain Technology	2.6	2.6	2.6	2.6	2.4	2.4	1.8	2.2
62	Data Mining for Business Intelligence	2.8	2.8	1.8	1.4	1.4	1.4	2.2	2.8
63	Multivariate Data Analysis	2.2	1.2	1.6	-	0.4	-	1.8	1.8
Specialization Courses: Operations Management									
64	Project Management	1.8	2.2	1	1	1.6	3	1	1
65	Total Quality Management	1	2	0.8	1	1.4	3	-	2
66	Logistics Management	1	2.2	1.2	1	-	3	-	0.8
67	Materials Management	2.2	1.4	1	1	-	3	-	-
68	Services Operations Management	2.2	1.4	1	1		3		
69	Supply Chain Management	1.6	2.8	1.2	1	1.2	3	1	1.2
70	Product design	0.4	1.8	1.4	1	1	3	2	0.8
71	Supply chain Analytics	2.6	2.4	-	1	1	3	-	-

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CHOICE BASED CREDIT SYSTEM
MASTER OF BUSINESS ADMINISTRATION (FULL – TIME)
CURRICULA AND SYLLABI FOR I TO IV SEMESTERS
SEMESTER - I

Sl. No.	Course Code	Course Title	Category	Periods per Week			Total Contact Periods	Credits
				L	T	P		
THEORY								
1.	BA3101	Management Principles and Organizational Behavior	PCC	4	0	0	4	4
2.	BA3102	Quantitative Techniques	PCC	3	1	0	4	4
3.	BA3103	Marketing Management	PCC	4	0	0	4	4
4.	BA3104	Accounting for Managers	PCC	3	1	0	4	4
5.	BA3151	Managerial Economics	PCC	4	0	0	4	4
6.	BA3105	Legal Systems in Business	PCC	4	0	0	4	4
7.	BA3106	Information Systems for Business	PCC	4	0	0	4	4
PRACTICALS								
8.	BA3161	Soft Skills I – Executive Communication	EEC	0	0	4	4	2
TOTAL				26	2	4	32	30

SEMESTER - II

Sl. No.	Course Code	Course Title	Category	Periods per Week			Total Contact Periods	Credits
				L	T	P		
THEORY								
1.	BA3201	Applied Operations Research	PCC	3	1	0	4	4
2.	BA3202	Human Resource Management	PCC	4	0	0	4	4
3.	BA3203	Research Methods in Business	PCC	4	0	0	4	4
4.	BA3251	Operations Management	PCC	3	1	0	4	4
5.	BA3204	Financial Management	PCC	3	1	0	4	4
6.	BA3205	Entrepreneurship Development	PCC	3	0	0	3	3
7.		Employability Skills Elective [@]	EEC	3	0	0	3	3
PRACTICALS								
8.	BA3211	Soft Skills II – Community Engagement	EEC	0	0	4	4	2
9.	BA3212	Soft Skills III – Computing Skills Laboratory	EEC	0	0	4	4	2
TOTAL				23	3	8	34	30

SEMESTER - III

Sl. No.	Course Code	Course Title	Category	Periods per Week			Total Contact Periods	Credits
				L	T	P		
THEORY								
1.	BA3301	Strategic Management	PCC	4	0	0	4	4
2.	BA3302	International Business	PCC	3	0	0	3	3
3.		Elective I	PEC	3	0	0	3	3
4.		Elective II	PEC	3	0	0	3	3
5.		Elective III	PEC	3	0	0	3	3
6.		Elective IV	PEC	3	0	0	3	3
7.		Elective V	PEC	3	0	0	3	3
8.		Elective VI	PEC	3	0	0	3	3
PRACTICALS								
9.	BA3311	Soft Skills IV – Leadership and Team Building Skills	EEC	0	0	4	4	2
10.	BA3312	***Summer Internship	EEC	0	0	6	6	3
TOTAL				25	0	10	35	30

**** Students should choose six PEC Course from the specialization list in consultation with the Head of the Institution.**

For the categorization of specialization students must opt for dual specialization. They should choose 3 PEC papers from respective areas of specialization.

***** Internship will be carried out during the summer vacation after the first year. Viva Voce will be conducted by the college and marks shall be sent to the University and the same will be included in the Third Semester Marks Statement.**

SEMESTER - IV

Sl. No	Course Code	Course Title	Category	Periods per Week			Total Contact Periods	Credits
				L	T	O		
PRACTICALS								
1.	BA3411	Project Work	EEC	0	0	24	24	12
TOTAL				0	0	24	24	12

L-Lecture

T-Tutorial

P- Practical

O-Project

TOTAL NO. OF CREDITS: 102 credits

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CURRICULA AND SYLLABI FOR I TO VI SEMESTERS

SEMESTER - I

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	BA3101	Management Principles and Organizational Behaviour	PCC	4	0	0	4	4
2.	BA3102	Quantitative Techniques	PCC	3	1	0	4	4
3.	BA3151	Managerial Economics	PCC	4	0	0	4	4
4.	BA3104	Accounting for Managers	PCC	3	1	0	4	4
PRACTICALS								
5.	BA3161	Soft Skills 1 – Executive Communication	EEC	0	0	4	4	2
TOTAL				14	2	4	20	18

SEMESTER - II

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	BA3201	Applied Operations Research	PCC	3	1	0	4	4
2.	BA3204	Financial Management	PCC	3	1	0	4	4
3.	BA3202	Human Resource Management	PCC	4	0	0	4	4
4.	BA3251	Operations Management	PCC	3	1	0	4	4
PRACTICALS								
5.	BA3211	Soft Skills – II Community Engagement #	EEC	0	0	4	4	2
6.	BA3212	Soft Skills III – Computing Skills Laboratory	EEC	0	0	4	4	2
TOTAL				13	3	8	24	20

Community Engagement for PT to be scheduled every Saturday

SEMESTER - III

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	BA 3105	Legal Systems in Business	PCC	4	0	0	4	4
2.	BA 3103	Marketing Management	PCC	4	0	0	4	4
3.	BA3106	Information Systems for Business	PCC	4	0	0	4	4
4.	BA3302	International Business	PCC	3	0	0	3	3
PRACTICALS								
5.	BA 3311	Soft Skill IV – Leadership and Team Building Skills	EEC	0	0	4	4	2
TOTAL				15	0	4	19	17

SEMESTER – IV

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	BA3203	Research Methods in Business	PCC	4	0	0	4	4
2.	BA3205	Entrepreneurship Development	PCC	3	0	0	3	3
3.		Employability Skills Elective [@]	EEC	3	0	0	3	3
4.		Elective I*	PEC	3	0	0	3	3
5.		Elective II*	PEC	3	0	0	3	3
6.		Elective III*	PEC	3	0	0	3	3
TOTAL				19	0	0	19	19

**@: Students need to choose one elective from the Employability Skills electives list
 Summer internship – minimum of 4 weeks of internship
 Summer Internship report & Training diary has to be submitted**

SEMESTER – V

SL. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT S
				L	T	P		
THEORY								
1.	BA3301	Strategic Management	PCC	4	0	0	4	4
2.		Elective IV*	PEC	3	0	0	3	3
3.		Elective V*	PEC	3	0	0	3	3
4.		Elective VI*	PEC	3	0	0	3	3
PRACTICALS								
5.	BA3312	Summer Internship	EEC	0	0	6	6	3
TOTAL				13	0	6	19	16

NOTE: * Students must choose three electives from 2 functional streams for Dual Specialization

SEMESTER - VI

SI. NO	COURSE CODE	COURSE TITLE	CATEGORY	L	T	P	CONTACT PERIODS	CREDIT S
PRACTICALS								
1.	BA3411	Project Work	EEC	0	0	24	24	12
TOTAL				0	0	24	24	12

TOTAL NO. OF CREDITS: 102

Employability Skills Electives@

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT S
				L	T	P		
1.	BA3001	Corporate Governance	EEC	3	0	0	3	3
2.	BA3002	Micro Small and Medium Enterprises	EEC	3	0	0	3	3
3.	BA3003	Intellectual Property Rights	EEC	3	0	0	3	3
4.	BA3071	Sustainable Management	EEC	3	0	0	3	3

@ : Students can choose one course from the above list of employability skills electives

Specialization Courses: Finance Management

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT S
				L	T	P		
1.	BA3004	Security Analysis and Portfolio Management	PEC	3	0	0	3	3
2.	BA3005	Merchant Banking and Financial Services	PEC	3	0	0	3	3
3.	BA3006	Derivatives Management	PEC	3	0	0	3	3
4.	BA3007	Financial Modelling	PEC	3	0	0	3	3

5.	BA3008	Applications of AI and ML in Finance	PEC	3	0	0	3	3
6.	BA3009	Fintech and Block chain applications in Finance	PEC	3	0	0	3	3
7.	BA3010	International Financial Management	PEC	3	0	0	3	3
8.	BA3011	Capital and Financial Markets	PEC	3	0	0	3	3

Specialization Courses: Marketing Management

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT S
				L	T	P		
1.	BA3012	Consumer Behaviour & Neural Marketing	PEC	3	0	0	3	3
2.	BA3013	Advertising Management and Sales Promotion	PEC	3	0	0	3	3
3.	BA3014	Brand Management	PEC	3	0	0	3	3
4.	BA3015	Services Marketing	PEC	3	0	0	3	3
5.	BA3016	Customer Relations Management	PEC	3	0	0	3	3
6.	BA3017	Retail Marketing	PEC	3	0	0	3	3
7.	BA3018	Digital Marketing	PEC	3	0	0	3	3
8.	BA3019	Marketing Analytics	PEC	3	0	0	3	3

Specialization Courses: Human Resource Management

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT S
				L	T	P		
1.	BA3020	Industrial and Labour Relations	PEC	3	0	0	3	3
2.	BA3021	Emotional Intelligence for Managerial Effectiveness	PEC	3	0	0	3	3
3.	BA3022	HR Analytics	PEC	3	0	0	3	3
4.	BA3023	Strategic Human Resource Management	PEC	3	0	0	3	3
5.	BA3024	Talent Management	PEC	3	0	0	3	3
6.	BA3025	Negotiation and Conflict Management	PEC	3	0	0	3	3
7.	BA3026	International HRD	PEC	3	0	0	3	3
8.	BA3027	Compensation and Rewards Management	PEC	3	0	0	3	3

Specialization Courses: Systems Management

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT S
				L	T	P		
1.	BA3028	System Analysis and Design	PEC	3	0	0	3	3
2.	BA3029	E – Business	PEC	3	0	0	3	3
3.	BA3030	Internet of Things	PEC	3	0	0	3	3
4.	BA3031	Cloud Computing	PEC	3	0	0	3	3

5.	BA3032	Enterprise Resource Planning	PEC	3	0	0	3	3
6.	BA3033	Software Project and Quality Management	PEC	3	0	0	3	3
7.	BA3034	Data Warehousing	PEC	3	0	0	3	3
8.	BA3035	Deep Learning and Artificial Intelligence	PEC	3	0	0	3	3

Specialization Courses: Business Analytics

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT S
				L	T	P		
1.	BA3036	Fundamentals of Business Analytics	PEC	3	0	0	3	3
2.	BA3037	Data Analytics with R Programming	PEC	3	0	0	3	3
3.	BA3038	Business Analytics Using Python	PEC	3	0	0	3	3
4.	BA3039	Data Visualization	PEC	3	0	0	3	3
5.	BA3040	Business Intelligence, Big Data, Cloud Computing	PEC	3	0	0	3	3
6.	BA3041	Block Chain Technology	PEC	3	0	0	3	3
7.	BA3042	Data Mining for Business Intelligence	PEC	3	0	0	3	3
8.	BA3043	Multivariate Data Analysis	PEC	3	0	0	3	3

Specialization Courses: Operations Management

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT S
				L	T	P		
1.	BA3044	Project Management	PEC	3	0	0	3	3
2.	BA3045	Total Quality Management	PEC	3	0	0	3	3
3.	BA3046	Logistics Management	PEC	3	0	0	3	3
4.	BA3047	Materials Management	PEC	3	0	0	3	3
5.	BA3048	Services Operations Management	PEC	3	0	0	3	3
6.	BA3049	Supply Chain Management	PEC	3	0	0	3	3
7.	BA3050	Product design	PEC	3	0	0	3	3
8.	BA3051	Supply chain Analytics	PEC	3	0	0	3	3

Summary Credit Distribution for Various Category of Course by Semester Wise

MBA – GM – Full Time						
S.No	Subject Area	Credits per Semester				Credits Total
		I	II	III	IV	
1	PCC	28	23	7		58
2	PEC			18		18
3	EEC	2	7	5	12	26
	Total	30	30	30	12	102

Summary Credit Distribution for Various Category of Course by Semester Wise

MBA – GM – Part Time								
S.No	Subject Area	Credits per Semester						Credits Total
		I	II	III	IV	V	VI	
1	PCC	16	16	15	7	4		58
2	PEC				9	9		18
3	EEC	2	4	2	3	3	12	26
	Total	18	20	17	19	16	12	102

OBJECTIVES:

- To acquaint the students with the fundamentals of managing business and to understand individual and group behaviour at work place so as to improve the effectiveness of an organization.

UNIT I NATURE AND THEORIES OF MANAGEMENT 12

Management- meaning, levels, management as an art or science, Managerial functions, Roles and skills, Evolution of Management Theory- Classical era- Contribution of F.W.Taylor, Henri Fayol, Mayo & Hawthorne Experiments, Behavioral and Management Science Approaches Modern era – system & contingency approach. Understanding Management's Context- Globalization – Diversity- Ethics

UNIT II PLANNING, ORGANISING AND CONTROL 12

Decision Making – Process – Rationality – Bounded Rationality – Intuition- Types of Decisions- Conditions of decision making. Planning - Steps in Planning Process - Scope and Limitations -Types of Planning - Strategic Management – Planning tools and Techniques.Organisation Structure and Design - Authority and Responsibility Relationships - Delegation of Authority and Decentralisation - Interdepartmental Coordination - Mechanistic vs Adaptive Structures - Formal and Informal. Control: meaning, function, Process and types

UNIT III INDIVIDUAL BEHAVIOUR 12

Individual Difference - Personality – concept and determinants of personality – theories of personality – type of theories – trait theory –social learning theory – Erikson's stages of Personality Development- Chris Argyris Immaturity to Maturity Continuum -The Big five personality Model-Personality-Job fit.Perception: Meaning Process – Factors influencing perception – Attribution theory. Learning: Classical conditioning, Operant conditioning and Social Learning – Managerial implications.Attitudes - Components, Attitude – Behaviour relationship, formation, values.Motivation: Early Theories of Motivation – Hierarchy of needs theory, Theory X and Theory Y, Two factor theory, McClelland's theory of needs and Contemporary theories of motivation – Self – Determination theory, Job Engagement, Goal Setting theory, Self– efficacy theory, Re–inforcement theory, Equity theory, Expectancy theory.

UNIT III GROUP BEHAVIOUR 12

Group Dynamics – Foundations of Group Behaviour – Groups- Stages of Group Development– Group Properties: Roles, Norms, Status, Size, Cohesiveness, and Diversity- Group Decision making. Teams – Groups vs Teams - Types - Characteristics of Effective Teams. Interpersonal Communication – Communication Process – Barriers to Communication– Cross-cultural Communication. Organizational Culture and Climate: Concept and Importance – Creating and Sustaining Culture

UNIT IV LEADERSHIP 12

Leadership – Leaders vs Managers -Early theories - Contingency theories and Contemporary Views - transformational leadership. Power and Politics: Sources of Power – Political Behaviour in Organizations – Managing Politics.Conflict and Negotiation: Sources and Types of Conflict –Negotiation Strategies– Negotiation Process.. Change – forces of change – Resistance to change – Approaches – Organizational Development (OD). Stressors in the Workplace – Individual Differences on Experiencing Stress - Managing Workplace Stress. Emotional Intelligence - Work Life Integration Practices.

TOTAL: 60 PERIODS

OUTCOMES:

On completion of this course, the students will be able to

- CO1.** Understand, apply and assess the various management concepts and develop the skills required in the business world
- CO2.** Understand, apply and adapt the processes of decision making, planning, organizing and controlling to their organization
- CO3.** Understand, Identify and interpret individual behavior in organization
- CO4.** Understand, Identify and interpret group behavior in organization and develop effective groups and teams
- CO5.** Understand and apply the leadership theories and demonstrate effective leadership.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		2	3	2	2	3	2	1
CO 2	2	3	1	2	2	3	2	1
CO 3		3	1	3	3	3	2	1
CO 4		2	1	2	3	3	2	1
CO 5		2	1	2	3	3	2	1
Ave.	0.4	2.4	1.4	2.2	2.6	3	2	1

READING LIST

1. Journal of Organizational Behaviour – Wiley Online Library
2. Research in Organizational Behaviour – Science Direct

REFERENCES:

1. Stephen P. Robbins, Mary Coulter, Amy Randel and Rajeesh Viswanathan, Management, Pearson Education, 15th Edition, 2022.
2. Stephen P. Robbins, Timothy A. Judge and Neharika Vohra, Organisational Behavior, Pearson Education, 18th edition, 2022.
3. Fred Luthans, Brett C. Luthans and Kyle W. Luthans, Organisational Behavior, Information Age Publishing, 14th Edition, 2020.
4. Prasad .L.M., Organisational Behaviour, Sultan Chand and Sons, 2019
5. Heinz Wehrich, Essentials of Management: An International, Innovation, And Leadership Perspective, 10th edition, Tata McGraw-Hill Education, 2015.

BA3102

QUANTITATIVE TECHNIQUES

L T P C
3 1 0 4

COURSE OBJECTIVE

The students could apply statistical techniques to data sets, and correctly interpret the results in business and social setting.

UNIT I INTRODUCTION

12

Basic definitions and rules for probability, conditional probability independence of events, Bayes' theorem, and random variables, Probability distributions: Binomial, Poisson, Uniform and Normal distributions.

UNIT II SAMPLING DISTRIBUTION AND ESTIMATION

12

Introduction to sampling distributions, sampling distribution of mean and proportion, application of central limit theorem, sampling techniques. Estimation: Point and Interval estimates for population mean and proportion of large sample and small samples, independent and dependent samples - Point and Interval estimates for difference in two population means for large samples and small samples :assuming population standard deviation to be equal and unequal - determining the sample size.

UNIT III TESTING OF HYPOTHESIS - PARAMETIRC TESTS 12

Hypothesis testing: one sample and two sample tests for means and proportions of large samples (z-test), one sample and two sample tests for means of small samples (t-test), difference in two population means for large samples (z test) and small samples :assuming population standard deviation to be equal and unequal (t test) – Paired t test – F-test for two sample standard deviations. ANOVA- one and two way.

UNIT IV NON-PARAMETRIC TESTS 12

Chi-square test for single sample standard deviation. Chi-square tests for independence and homogeneity of attributes and goodness of fit. Kolmogorov-Smirnov – test for goodness of fit. Sign test for paired data, preferences and median- One sample run test - Mann – Whitney U test and Kruskal Wallis test.

UNIT V CORRELATION AND REGRESSION 12

Correlation – Coefficient of Determination – Rank Correlation – Regression – Types of regression - Estimation of Regression line – Method of Least Squares – Standard Error of estimate.

TOTAL: 60 PERIODS**OUTCOMES:**

CO1: To understand, develop and apply the problem solving techniques to calculate probabilities.

CO2: To understand and apply estimation procedures on various scenarios.

CO3: To formulate, analyze and test hypotheses on various scenarios.

CO4: To apply non parametric tests for hypotheses testing.

CO5: To evaluate the relationship between variables.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3		1		2	1	
CO 2	3	3		1		2	1	
CO 3	3	3		1		2	1	
CO 4	3	3		1		2	1	
CO 5	3	3		1		2	1	
Avg								

REFERENCES:

1. Richard I. Levin, David S. Rubin, Masood H.Siddiqui, Sanjay Rastogi, Statistics for Management, Pearson Education, 8th Edition, 2017.
2. Prem. S. Mann, Introductory Statistics, Wiley Publications, 9th Edition, 2018.
3. T N Srivastava and Shailaja Rego, Statistics for Management, Tata McGraw Hill, 3rd Edition 2017.
4. Ken Black, Sanjeet Singh, Business Statistics, 7th Edition, An Indian Adaptation, 10th Edition, Wiley India Edition, 2022.
5. Peter Bruce, Andrew Bruce, Peter Gedeck, Statistics for Data Scientists, O'Reily, 2nd Edition, 2020.
6. Mehmet Mehmetoglu and Matthias Mittner, Applied Statistics using R, Sage Publishing, 2022.
7. N. D. Vohra, Business Statistics: Text and Problems with Introduction to Business Analytics, 2nd edition, Tata McGraw Hill, 2021

COURSE OBJECTIVE

- To give insight into Marketing Strategies ,Mix and buying behaviour of consumer and industry.

UNIT I INTRODUCTION 12

Marketing Management Philosophies – What is marketing- The concepts of marketing- Marketing and Services – Digital Marketing – Social Media Marketing – Current marketing challenges; Rural Marketing – E-Rural Marketing – International Marketing – Industrial Marketing.

UNIT II STRATEGIC MARKETING 12

Marketing Management Process – Analysis of Marketing opportunities, Selecting Target Consumers, developing Marketing Mix Analysis of Macro and Micro environment Marketing Research as an Aid to Marketing, Marketing Research Process – Sales Forecasting – Techniques. Marketing Tactics, The Mix Service and Retail Marketing

UNIT III MIS 12

Marketing Information Systems- Customer Relationship Management (CRM) Customer Engagement Marketing – Sales force Automation- Marketing Analytics.

UNIT IV BUYER BEHAVIOUR 12

Factors Influencing Consumer Behaviour – Buying situation– Buying Decision Process – Industrial Buyer Behaviour. Market Segmentation : Targeting and Positioning – Competitive Marketing Strategies. Customer Life Cycle – Customer Life time Value, Product Portfolio Management.

UNIT V PRODUCT POLICIES 12

Consumer and Industrial Product Decisions, Branding, Packaging and Labelling – New Product Development and Product Life Cycle Strategies, Pricing – Pricing Strategies and approaches, Promotion Decisions: Promotion Mix – Integrated Marketing Communication – Advertising and Sales Promotion - Sales Force Decisions, Selection, Training, Compensation and Control – Publicity and Personal Selling – Distribution Management – Channel Management: Selection, Co-operation and Conflict Management – Vertical, Horizontal and Multi-channel Systems Consumer Protection – Awareness of Consumer Rights in the Market Place.

TOTAL: 60 PERIODS**COURSE OUTCOMES**

CO1: On completion of this course, students will;

CO2: Learn the fundamental principles of marketing, marketing concepts and ideas. analyse the organization's marketing strategy and marketing environment. Familiar with marketing research with forecasting techniques.

CO3: Teach the buyer behavior and market segmentation and competitive marketing strategies.

CO4: Analysestrategically about branding, pricing and marketing issues.

CO5: Evaluate with Promotion decisions along with awareness on Consumer Rights in the Market Place.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	1	1	1	3	2	2	2	2
CO 2	3	3	3	2	1	1	2	3
CO 3	3	3	1	3	1	2	2	3
CO 4	3	3	3	1	2	3	3	3
CO 5	3	3	2	3	2	2	3	3

Reading List

- <https://ocw.mit.edu/courses/sloan-school-of-management/15-810-marketing-management-fall-2010/lecture-notes/>
- <https://cpbucket.fiu.edu/mar3023vd1131/syllabus.htm>
- <https://www.ama.org/ama-academic-journals/>
- <https://www.emerald.com/insight/publication/issn/0736-3761>

References Books

- Pillai & Baghawathy, Marketing Management, S.Chand , 2010.
- Gupta Prachi, Aggarwal Ashita , et al., Marketing Management: Indian Cases, 1st Edition, 2017
- G.Shainesh Philip Kotler, et..al., Marketing Management; Indian Case Studies included, 16th Edition, Pearson, 2022
- https://www.amazon.in/Warren-J-Keegan/e/B001ILHKJY?ref=sr_ntt_srch_lnk_2&qid=1656309878&sr=1-2, Global Marketing Management, 8th Edition, Pearson, 2017
- Mullins, Marketing Management: A Strategic Decision Making Approach, 7th Edition, McGraw-Hill, 2010.
- Philip Kotler and https://www.amazon.in/s/ref=dp_byline_sr_book_2?ie=UTF8&field-author=Keven+Lane+Keller&search-alias=stripbooks, Marketing Management, 15th Edition, Pearson, 2015

BA3104

ACCOUNTING FOR MANAGERS

L T P C
3 1 0 4

OBJECTIVE:

- Acquire a reasonable knowledge in accounts analysis and evaluate financial statements

UNIT I FINANCIAL ACCOUNTING

12

Financial Accounting – Meaning – Objectives – Functions. Branches of Accounting: Financial, Cost and Management Accounting – Generally Accepted Accounting Principles. Journal, Ledger and Trial Balance - Preparation of Final Accounts: Trading, Profit and Loss Account and Balance Sheet- Reading the financial statements; International Accounting Standards - IFRS

UNIT II FINANCIAL STATEMENTS ANALYSIS

12

Techniques of Financial Statement Analysis - Common Size and Comparative Financial Statements - Trend Analysis. Financial Ratio Analysis, Interpretation of ratios for financial decisions - DuPont Ratios – Fund Flow Analysis – Statement of Changes in Working Capital – Preparation of Funds Flow Statement - Cash Flow Statement Analysis.

UNIT III MARGINAL COSTING

12

Marginal Costing – definition - Profit Planning – Cost, Volume, Profit Analysis – Break Even Analysis – Contribution, P/V Ratio, Margin of Safety - Decision-making problems –Key Factor Analysis - Make or Buy decisions - Determination of sales mix - Exploring new markets - Add or drop products - Expand or contract – Export decision.

UNIT IV BUDGETARY CONTROL AND VARIANCE ANALYSIS 12
 Budget, Budgeting and Budgetary Control – Types of Budgets – Preparation of Sales, Production, Cash Flow, Fixed and Flexible budget, Master Budget – Zero Base Budgeting. Standard Costing and Variance Analysis – Reporting to Management

UNIT V COST ACCOUNTING 12
 Cost Accounting: Meaning – Objectives – Elements of Cost – Cost Sheet – Classification of costs – Cost Unit and Cost Centre – Methods of Costing – Techniques of Costing. Uses of Accounting information in Managerial Decision-making. Accounting Standards and Accounting Disclosure Practices in India; Exposure to Practical knowledge of using Accounting Software – Open Source

TOTAL: 60 PERIODS

COURSE OUTCOMES:

- CO1:** Understand the fundamentals of financial, cost and management accounting.
- CO2:** Understand and construct financial statements.
- CO3:** Analyse financial statements using tools and techniques.
- CO4:** Apply the Marginal costing techniques for techniques for decision making.
- CO5:** Apply budgetary control and Variance analysis and prepare reports to facilitate managerial decisions.
- CO6:** Apply cost accounting techniques and understand the accounting disclosure practices in India.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1						2		2
CO 2	3	3		3		3	2	
CO 3	3	3	3			3	2	
CO 4	3	3				3	3	
CO 5	3	3				3	3	
CO 6		3	3	3		3	2	2

READING LIST

1. <http://files.rajeshindukuristudyplace.webnode.com/200000014-9621c971b8/%20accounting%20%20for%20%20managers.pdf>
2. http://shodhganga.inflibnet.ac.in/bitstream/10603/70588/9/09_chapter%201.pdf
3. <http://educ.jmu.edu/~drakepp/principles/module6/capbudtech.pdf>
4. https://www.researchgate.net/publication/313477460_CONCEPT_OF_WORKING_CAPITAL_MANAGEMENT

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1. M.Y. Khan & P.K. Jain, Management Accounting, McGraw Hill, 8th edition, 2021.
2. Charles T. Horngren, Gary L.Sundem, David Burgstahler, Jeff Schatzberg, Introduction to Management Accounting, PHI Learning, 16th edition, 2014.
3. Gupta, A., Financial Accounting for Management: An Analytical Perspective, 5th Edition, Pearson, 2016
4. Nalayiram Subramanian, Contemporary Financial Accounting and reporting for Management – a holistic perspective- Edn. 1, 2014 published by S. N. Corporate Management Consultants Private Limited
5. R. Narayanaswamy, Financial Accounting: A Managerial perspective, PHI, 7th edition, 2022.
6. Jan R. Williams, Mark S bettner, Joseph V Carcello, Financial and Managerial Accounting - The basis for business Decisions, McGraw Hill Education, 19th edition, 2021.
7. Earl K. Stice and James D.Stice, Financial Accounting, Reporting and Analysis, 8th edition, Cengage Learning, 2015.

8. N.M. Singhvi, Ruzbeh J. Bodhanwala, Management Accounting – Text and cases, 3rd edition PHI Learning, 2018.
9. Noreen, E., Brewer, P. and Garrison, R., Managerial Accounting for Managers, 13th Edition, Tata McGraw-Hill Education Pvt. Ltd., 2009.
10. Rustagi, R. P., Management Accounting, 2nd Edition, Taxmann Allied Services Pvt. Ltd, 2011.

BA3151

MANAGERIAL ECONOMICS

L T P C
4 0 0 4

COURSE OBJECTIVE

- To make the Students learn about microeconomic and Macroeconomic implications in Business Decision.

UNIT I INTRODUCTION 12

Definition of Managerial Economics. Decision Making and the Fundamental Concepts Affecting Business Decisions – the Incremental Concept, Marginalism, Equi-marginal Concept, the Time Perspective, Discounting Principle, Opportunity Cost Principle- Micro and Macro Economics.

UNIT II UTILITY ANALYSIS AND THE DEMAND CURVE 12

Elasticity of Demand - Demand Analysis: Basic Concepts, and tools of analysis for demand forecasting. Use of Business Indicators: Demand forecasting for consumer, Consumer Durable and Capital Goods. Input-Output Analysis – Consumer Behavior-Consumer Equilibrium.

UNIT III THE PRODUCTION FUNCTION 12

Production with One Variable Input – Law of Variable Proportions – Production with Two Variable Inputs – Production Isoquants – Isocost Lines Estimating Production Functions- Returns to Scale– Economies Vs Diseconomies of Scale – Cost Concepts – Analysis of cost – Short and long run costs. Market Structure: Perfect and Imperfect Competition – Monopoly, Duopoly, Monopolistic Competition – Pricing Methods.

UNIT IV MACRO ECONOMIC VARIABLES 12

National Income- Concepts – Gross Domestic Product, Gross National Product, Net National Product – Measurement of National Income, Savings, Investment - Business Cycles and Contracyclical Policies – Role of Economic Policy – Indian Economic Planning.

UNIT V COMMODITY AND MONEY MARKET 12

Demand and Supply of Money – Money Market Equilibrium – Monetary Policy – Inflation – Deflation – Stagflation-Role of Fiscal Policies- Indian Fiscal Policies - Government Policy towards Foreign Capital and Foreign Collaborations – Globalization and its Impact. Cashless economy and digitalized cash transfers; Economic models and its steps; FEMA-GST- Industrial Policy in India and its effects on growth.

TOTAL: 60 PERIODS

COURSE OUTCOMES:

- CO1:** Be able to learn the basic concepts of managerial economics that helps the firm in decision making process.
- CO2:** Be able to understand about the Basic concepts of Demand, Supply and Equilibrium and their determinants
- CO3:** Discover production function and market structure
- CO4:** Illustrate macroeconomics concepts like National income, Savings and Investment, Indian Economic Policy and planning
- CO5:** Possess better knowledge about Money market, Monetary and Fiscal policy, inflation and deflation, FDI and globalization and Cashless economy and digitalized cash transfers.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3	1	3	1	2	1	2
CO 2	3	2	1	3	2	2	1	3
CO 3	3	3	2	2	2	3	3	3
CO 4	3	3	3	2	1	3	3	2
CO 5	3	3	3	2	1	11,1	3	3

Reading List

1. <http://pearsoned.co.in/prc/book/paul-g-keat-managerial-economics-economic-tools-todays-decision-makers6e-6/9788131733530>
2. http://www.onlinevideolecture.com/mba-programs/kmpetrov/managerial%20economics/?course_id=4207
3. <https://www.slideshare.net/dvy92010/nature-and-scope-of-managerial-economics-76225857>
4. The Indian Economic Journal - SAGE Journals

References Books

1. Damodaran, S., Managerial Economics, 2nd Edition, Oxford University Press, 2011.
2. Dwivedi, D.N., Managerial Economics, Vikas Publishing House, 2011.
3. R. L. Varshney , K.L. Maheshwari., Managerial Economics, Sultan Chand & Sons, 2014.
4. William F. Samuelson, Stephen G. Marks, Jay L., Zagorsky., Managerial Economics, Wiley Publishers, 9th Edition (2021)
5. H. L. Ahuja., Managerial Economics., Atlantic Publishers and distributors(P) Ltd., 2017.
6. Dominick Salvatore, Managerial Economics: Principles and worldwide applications, 9E Adaptation, Oxford university press, 9th Edition, 2020.

BA3105

LEGAL SYSTEMS IN BUSINESS

L T P C
4 0 0 4

COURSE OBJECTIVES

- To create knowledge and understanding on law of contracts
- To describe about sale of goods and Negotiable instrument act
- To have an overall understanding about partnership act and company law.
- To familiarize various labor laws for effective administration of Human Resource of an organization.
- To provide insights and awareness about consumer protection act, Cyber-crimes, Intellectual property Rights.

UNIT I THE LAW OF CONTRACTS

12

Definition of Contract Offer and Acceptance – Essential Elements of a Valid Contract: Free Consent – Competency of Parties – Lawful Consideration –Legality of Object. Void, Voidable, Unenforceable and Illegal Contracts–Performance of Contracts – Privity of Contracts – Assignment of Contracts – By Whom Contract must be Performed – Time and Place of Performance – Performance of Reciprocal Promises – Contracts which need not be performed, Discharge of Contracts : By Performance, By Agreement, By Impossibility, By Lapse of Time, By Operation of Law and By Breach of Contracts–Remedies for Breach of Contracts.

UNIT II SALE OF GOODS ACT 12
 Definition of a Sale and a Contract of Sale–Difference between(1)Sale and an Agreement to Sell (2) Sale and a Contract Form (3) Sale and Bailment (4)Sale and Mortgage of Goods (5) Sale and Time Purchase Conditions and Warranties –Passing of Property of Goods–Rights of an Unpaid Seller.

Negotiable Instruments Act: Negotiable Instruments in General: Cheques, Bills of Exchange and Promissory Notes–Definition and Characteristics

UNIT III PARTNERSHIP ACT 12
 Evolution–Definition of Partnership–Difference between Partnership and Joint Family Business – Kinds of Partnerships – Registration – Rights and Liabilities of Partners – Dissolution.

Company Law: Evolution of Company Form of Organisation – Companies Separate Legal Entity – Comparison of Company with Partnership and Joint Hindu Family Business – Kinds of Companies – Comparison of Private and Public Companies –Formation of Companies–General Idea About Memorandum and Articles of Association,Prospectus,Statement inlieu of Prospectus–Management of Companies – General Idea of Management of Companies – Officers, Meetings – Resolutions –Account and Audit–Winding up of Companies–General Idea of the Different Modes of Winding Up.

UNIT IV Labour Law 12
 Factories Act, Minimum Wages Act,Industrial Disputes Act, Employees Compensation Act, Payment of Bonus Act 1965. Payment of Gratuity Act 1972. ESI Act, Employees Provident Fund and Miscellaneous Provisions Act 1952, Maternity Benefits Act, Child labour Abolition & Regulation Act,1986- Inter-state Migrant Workmen (Regulation of Employment & Conditions of services) Act 1979- Bonded Labour system (Abolition)Act 1976- Sexual Harassment of women at Workplace (Prevention, Prohibition & Redressal) Act 2013- Contract Labour (Regulation and Abolition) Act- Four Labour Codes and Rules-RTI Act 2005.

UNIT V CONSUMER PROTECTION ACT 12
 Consumer Protection Act,Competition Act 2002,Cyber Crimes,IT Act 2008 – Intellectual Property Rights: Types of Intellectual Property – Trademarks Act 1999 –The Copyright Act 1957 –International Copyright Order,1999 –Design Act,2000; UNICITRAL – United Nations Commission on International Trade Law.

TOTAL: 60 PERIODS

COURSE OUTCOMES

- CO1:** Have knowledge on understandings on law of contract.
- CO2:** Know the sale of Goods & Negotiable instrument act.
- CO3:** Have understandings on partnership and company law
- CO4:** Have familiarize with various labour laws.
- CO5:** Possess insights & awareness about consumer protection Act Cyber Crimes, Intellectual Property Rights.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1				2		2	2	
CO 2						2		
CO 3						2	2	
CO 4					2	2	2	
CO 5								2

READING LIST

1. <http://www.legalserviceindia.com/article/>
2. <http://www.freebookcentre.net/Law/Law-Books.html%202>
3. <https://www.mooc-list.com/course/business-law-wma>
4. <https://ilj.law.indiana.edu/> \t "_blank

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1. Kapoor ND., Legal Systems in Business, Edition 2 (2021), Sultan Chand & Sons.
2. Rao, P.M., Mercantile Law, PHI Learning, 2011.
3. Majumdar, A. K. and Kapoor, G.K., Company Law, 15th Edition, Taxmann Publications Pvt. Ltd., 2012.
4. Majumdar, A. K. and Kapoor, G.K., Company Law and Practice, 17th Edition, Taxmann Publications Pvt. Ltd., 2012.
5. Intellectual Property Laws, Universal Law Publishing, 2012.
6. Daniel Albuquerque , Legal systems in Business, Oxford University Press India, 2nd Edition, 2015.

BA3106

INFORMATION SYSTEMS FOR BUSINESS

L T P C
4 0 0 4

UNIT I INTRODUCTION 12

Introduction to information system-The management,structure and activities-Information needs and sources-Types of management decisions and information need.System classification Elements of system, input,output, process and feedback.

UNIT II TRANSACTION PROCESSING INFORMATION SYSTEM 12

Office Automation System (OAS) - Knowledge workers System(KWS); MIS; Information system for managers, Intelligence information system –Decision support system-Executive information systems.

UNIT III FUNCTIONAL MANAGEMENT INFORMATION SYSTEM 12

Production / Operations Information system, Marketing Information Systems, Accounting Information system, Financial Information system, Human resource Information system.

UNIT IV SYSTEM ANALYSIS AND DESIGN 12

The work of a system analyst- SDLC-System design – AGILE Model – Waterfall Model – Spiral Model – Iterative and Incremental Model - RAD Model - Requirement analysis-Data flow diagram, relationship diagram, design- Implementation-Evaluation and maintenance of MIS, Database System: Overview of Database- Components-advantages and disadvantages of database; Data Warehousing and Data Mining; Business Intelligence; Artificial Intelligence; Expert System; Big Data; Cyber Safety and Security- Cryptography; RSA Model of Encryption; Data Science - Block Chain Technology; E-commerce and E-Business models; IOT - RFID.

UNIT V ENTERPRISE RESOURCE PLANNING (ERP) 12

System,Benefits of the ERP,ERP how different from conventional packages , Need for ERP , ERP components , Selection of ERP Package, ERP implementation,Customer Relationship management. Organisation & Types, Decision Making, Data & information, Characteristics & Classification of information, Cost & value of information, various channels of information and MIS; Information system audit and control – E-Governance.

TOTAL: 60 PERIODS

COURSE OUTCOMES

On completion of this course, students will;

- CO1:** Learn the importance of data and information in managerial decision making.
- CO2:** Possess on the various IS and the its relevance to Organizational environment.
- CO3:** Understand the application of IS on the various functions like Accounting, Finance, Marketing, Operations and HR.
- CO4:** To study the various models and new technologies.
- CO5:** Be exposed on the importance of selecting the appropriate ERP and its implementation.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	2				3		
CO 2			3		3			3
CO 3	2		3		2			3
CO 4	3	3				2	3	
CO 5	3	2			2			3

Reading List

1. Information Systems for Business and Beyond – open textbooks. site.
2. Management Information Systems: Managing the Digital firm – www.textbooks.com
3. Information systems Journal – Wiley Online Library.
4. Information Systems management in Business and development organisations – Harekrishna Misra – PHI Learning.

References Books

1. Azam,M., ManagementInformationSystem,McGrawHillEducation,2012
2. Laudon,K.,Laudon,J.andDass,R.,ManagementInformationSystems–Managing the Digital Firm,11thEdition, Pearson,2010.
3. Murdick,R.G.,Ross, J.E. and Claggett, J.R., Information Systems for Modern Management, 3rd Edition,PHI,2011.
4. O'Brien,J.A.,Morakas, G.M.and Behl, R., Management Information Systems, 9thEdition, TataMcGraw-Hill Education, 2009.
5. Saunders, C.S. and Pearson, K.E., Managing and Using Information Systems, 3rdEdition, WileyIndiaPvt.Ltd.,2009.
6. Stair,R. and Reynolds, G.,Information Systems,10thEdition,CengageLearning,2012.

BA3161

SOFT SKILLS I – EXECUTIVE COMMUNICATION

L T P C
0 0 4 2

OBJECTIVES:

- To help the students to acquire some of the necessary skills to handle day-to-day managerial responsibilities, such as - making speeches, controlling one-to-one communication, enriching group activities and processes, giving effective presentations, writing letters, memos, minutes, reports and advertising, and maintaining one's poise in private and in public.

UNIT I INTRODUCTION AND TYPES OF BUSINESS COMMUNICATION

Introduction to Business Communication: Principles of effective communication, Target group profile, Barriers of Communication, Reading Skills, Listening, Feedback. - Principles of Nonverbal Communication: Professional dressing and body language. Role Playing, Debates and Quiz. - Group communication: Meetings, group discussions. - Other Aspects of Communication: Cross Cultural Dimensions of Business Communication Technology and Communication,

UNIT II BUSINESS COMMUNICATION WRITING MODELS AND TOOLS

Business letters, Routine letters, Bad news and persuasion letters, sales letters, collection letters, , Resume/CV, job application letters, proposals. Internal communication through Email - notices, circulars, memos, agenda and minutes, Exercises on Corporate Writing, Executive Summary of Documents, Creative Writing, Poster Making, Framing Advertisements, Slogans, Captions.

UNIT III EFFECTIVE PRESENTATIONS

Principles of Effective Presentations, Principles governing the use of audiovisual media. Types of managerial speeches - Presentations and Extempore - speech of introduction, speech of thanks, occasional speech, theme speech.

UNIT IV INTERVIEW SKILLS

Mastering the art of giving interviews in - selection or placement interviews, discipline interviews, appraisal interviews, exit interviews, web /video conferencing, tele-meeting.

UNIT V REPORT WRITING

Objectives of report, types of report, Report Planning, Types of Reports, Developing an outline, Nature of Headings, Ordering of Points, Logical Sequencing, Graphs, Charts, Executive Summary, List of Illustration, Report Writing.

Note: The emphasis of the entire subject should be on practical aspects.

Practical: Module 1-This module introduces both written and spoken communication skills to students to build their confidence in delivering clear and logical messages to their audience. They will develop written communication skills through crafting business messages such as business letters, emails, and meeting minutes. In addition, students will work through presentations and simulated meetings to refine their spoken communication skills, discussion techniques and people skills.

Practical - Module 2-This module builds on the foundation of Business Communication 1 and creates opportunities for students to strengthen their oral and written communication. Students will be required to enhance their presentation skills through impromptu speeches. Students will also learn how to prepare a formal business report. Job hunting and employment skills will be introduced to prepare students for a positive start to their careers. Students will be taught to write application letters and resumes. Additionally, students will learn job interview techniques through role-plays and simulations

Practical - Module 3-This practical module aims to help students be persuasive in the business world. Students will learn listening and data gathering skills to better understand their target audience's needs and requirements and persuasive skills to convince the audience to accept a new policy/suggestion/product through role-playing a boardroom presentation. Students will also be taught business networking skills including conversation techniques, dining etiquette and personal branding through role-plays and simulations.

TOTAL : 60 PERIODS

OUTCOMES :

CO1: Develop good managerial communication skills

CO2: Ability to excel in different forms of written communication required in a business context

CO3: Develop good presentation skills

CO4: In-depth understanding of interview skills

CO5: Ability to prepare Business reports

CO PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	2	2	1	3	3	1	1	1
CO2	2	3	3	2	2	1	1	3	3	2	2	2
CO3	3	2	1	2	2	2	3	1	2	1	2	1
CO4	3	1	2	3	2	1	1	3	2	1	2	2
CO5	3	1	2	3	2	1	1	1	2	2	1	1

Reading List :

1. www.businesscommunicationskills.com
2. www.kcittraining.com
3. www.mindtools.com
4. www.businesscommunication.org

REFERENCES :

1. Rajendra Pal, J.S. Korlahalli ,Essentials of Business Communication by, Sultan Chand & Sons, 13th Edition
2. Meenakshi Raman, Prakash Singh ,Business Communication by, Oxford, 2nd edition,2012
3. Raymond V. Lesikar, Flatley, Basic Business Communication Skills for Empowering the Internet Generation by, M.E., TMGH , New Delhi , 10th edition, 2004
4. Ludlow R , Panton ,The Essence of Effective Communications , Prentice Hall of India Pvt. Ltd. 2, 1995
5. C. S. Rayadu , Communication by, HPH, 2015
6. R. C. Sharma , Krishna Mohan ,Business Correspondence & Report Writing , Tata McGraw Hill, 5th Edition, 2017
7. Malcolm Goodale , Developing Communication Skills, 2nd Edition Professional Presentations, Cambridge University Press
8. Supplementary Reading Material Business Communication - Harvard Business Essentials Series, HBS Press
9. Adair,J , Effective Communication. , Pan Macmillan Excellence in Business Communication by Thill, J. V. &Bovee, G. L, McGraw Hill, New York. Business Communications: From Process to Product by Bowman, J.P. &Branchaw, P.P., Dryden Press, Chicago

BA3201

APPLIED OPERATIONS RESEARCH

L T P C
3 1 0 4

COURSE OBJECTIVE:

- Understand, Formulate and Apply decision making models under conditions of certainty, risk and uncertainty.

UNIT I

LINEAR PROGRAMMING

12

Introduction to Operations research: Models and applications in functional areas of management. Linear Programming: Formulation, Maximization & Minimization Cases, Graphical and Simplex (Primal, Penalty and Dual Simplex methods. Applications of Sensitivity Analysis

UNIT II

TRANSPORTATION AND ASSIGNMENT MODELS

12

Transportation Models (Minimising and Maximising Problems) – Balanced and unbalanced Problems – Initial Basic feasible solution by N-W Corner Rule, Least cost and Vogel's Approximation Methods. Check for optimality. Solution by MODI / Stepping Stone method. Case of Degeneracy. Transshipment Models.
Assignment Models (Minimising and Maximising Problems) – Balanced and Unbalanced Problems. Solution by Hungarian and Branch and Bound Algorithms. Travelling Salesman problem. Crew Assignment Models.

UNIT III GAME THEORY AND INTEGER PROGRAMMING 12
 Game Theory-Two-person Zero sum games-Saddle point, Dominance Rule, Convex Linear Combination (Averages), methods of matrices, graphical and LP solutions.
 Integer programming: Branch & Bound and Gomory's cutting plane algorithms for 2 variables and 2 and more variable cases

UNIT IV REPLACEMENT & NETWORKING MODELS 12
 Replacement Models - Individuals replacement Models (With and without time value of money) – Group Replacement Models. Networking – Programme Evaluation and Review Technique (PERT) and Critical Path Method (CPM) for Project Scheduling- Crashing – Resource allocation and Resource Scheduling.

UNIT V INVENTORY, SIMULATION & JOB SEQUENCING MODELS 12
 Deterministic Inventory Models – EOQ and EBQ Models (With and without shortages), Quantity Discount Models. Monte Carlo Simulation application in decisions.
 Job Sequencing algorithm (Johnson') - n jobs thro' 2 machines, n jobs thro' 3 machines and n jobs thro' m machines.

TOTAL : 60 PERIODS

COURSE OUTCOMES:

- CO1:** Formulate, relate and apply the linear programming techniques to decision making.
- CO2:** Solve, appraise and demonstrate an understanding of adopting transportation and assignment models for optimization.
- CO3:** Compare, evaluate and choose the appropriate decision strategies using game theory and using integer programming models
- CO4:** Recall, relate, analyse and predict the replacement period of large and small items and adapt PERT and CPM techniques in forecasting project durations and resources.
- CO5:** Demonstrate an understanding to solve and estimate the optimum inventory parameters, the Job Sequencing process and apply simulation to decision making

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3		1	1	3	1	1
CO 2	3	3		1	1	1	2	3
CO 3	3	3		1	3	3	1	1
CO 4	3	3		1	3	3	2	2
CO 5	3	3		1	3	1	3	2
Avg.	3	3		1	2.2	2.2	1.8	1.8

Supplementary Reading List

1. <http://www.cbom.atozmath.com>
2. <https://www.journals.elsevier.com/operations-research-perspectives> \t "_blank

REFERENCES:

1. Paneerselvam R., Operations Research, Prentice Hall of India, Third Edition, 2023.
2. Hamdy A Taha, Operations Research – An Introduction to Analytics, Ai and MI, Pearson India, 2022
3. Anderson, D.R., Sweeney, D.J., Williams, T.A. and Martin, K., An Introduction to Management Science: Quantitative Approach to Decision Making, 14th Edition Paperback – 1, Cengage Learning India Pvt. Ltd., 2019
4. Gupta P.K., Hira D.S. and Kamboj A., Introduction to Operations Research, S.Chand, 2014
5. Hiller, F., Liebermann, Nagand Basu, Introduction to Operations Research, 11th Edition Paperback, Tata McGraw-Hill Publishing Co.Ltd., 2021

OBJECTIVES:

- To provide knowledge about management issues related to staffing, training, performance, compensation, human factors consideration and compliance with human resource requirements.

UNIT I INTRODUCTION 12

Introduction of Human Resource Management: Importance of Human Resources, Definition and Objectives of Human Resources Management, Qualities of a good HR manager – Evolution and growth of Human Resource Management in India. Functions of Human Resource Management. Strategic Human Resource Management (SHRM). Human Resource Policies: Need, type and scope, Human Resource Accounting and Audit- Gig Economy.

UNIT II HUMAN RESOURCE PLANNING (HRP) 12

Human Resources Planning: Long and Short term planning, Job Analysis, Skills inventory, Job Description, Job Specification and Succession Planning, Strategic Human Resource Planning. Recruitment and selection: Purposes, types and methods of recruitment and selection, Relative merits and demerits of the different methods, Recruitment and Social Media. Placement, Induction, Transfers, Promotions, Dismissal, Resignation, Exit Interviews, Reduction of attrition rate- Attrition and retention management.

UNIT III TRAINING, DEVELOPMENT & CAREER MANAGEMENT 12

Importance and benefits of Training and Development, Types of Training Methods, Executive Development Programs, Concept and process of Career Management; Competency mapping, Knowledge Management & Talent Management.

UNIT IV PERFORMANCE MANAGEMENT 12

Importance, process and Methods: Ranking, rating scales, critical incident method, Removing subjectivity from evaluation, MBO as a method of appraisal, Performance Feedback, Online PMS. Human Resource Information System; International Human Resource Management; Cross cultural diversity management; Hybrid work culture; work-life balance; Quality of work-life; HR Analytics.

UNIT V COMPENSATION MANAGEMENT 12

Wage and Salary Administration: Job Evaluation, Calculation of Wage, Salary, Prerequisites, Compensation Packages, Cost of Living Index and Calculation of Dearness Allowance, Rewards and Incentives; ESOP-Financial and non-financial incentives, Productivity linked Bonus, Compensation Criteria, Rewards and Recognition

TOTAL: 60 PERIODS**COURSE OUTCOMES**

On completion of this course, students will;

CO1: Gain an understanding of HRM policies and importance.

CO2: Implement appropriate HRP in workplace.

CO3: Apply feasible Training method and manage career progressions.

CO4: Demonstrate managing performance of human resources.

CO5: Design and justify compensation framework.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1				2		2		
CO 2						2		
CO 3					3	3	2	
CO 4						2	2	
CO 5				2		2	2	

READING LIST

1. <https://businessjargons.com/performance-management.html>
2. <https://www.hr-guide.com/data/G400.htm>
3. <https://www.managementstudyguide.com/training-development-hr-function.htm>
4. <https://www.tandfonline.com/toc/rijh20/current> \t "_blank

REFERENCES

1. Ashwathappa, K., Human Resource Management, 9th Edition, Tata McGraw-Hill Education Pvt. Ltd., 2021.
2. Ivaneceevich, J.M., Human Resource Management, 12th Edition, Tata McGraw-Hill Education Pvt. Ltd., 2020.
3. Gary Dessler & Biju Varrkey, Human Resource Management, 16th Edition, Pearson India Pvt. Ltd., 2020.
4. DeCenzo, D.A., Robbins S.P., Susan L Verhulst, Human Resource Management, 14th Edition, Wiley India Pvt. Ltd., 2021.
5. Leigh Thompson, Making the team, A guide for Managers, Pearson, 6th Edition 2019.
6. Gary Dessler, Fundamentals of Human Resource Management, Pearson, 4th Edition 2017.
7. Gupta CB, Human Resource Management, Text and Cases, Sultan Chand & Sons, 2023.

BA3203

RESEARCH METHODS IN BUSINESS

L T P C
4 0 0 4

COURSE OBJECTIVE

- Students could undertake a systematic outlook towards business and social problems for the purpose of objective decision making, and to solve it.

UNIT I INTRODUCTION

12

Business Research – Definition and Significance – concepts-constructs – variables – definitions-Theory and Model building - Types of Research - the research process – Research questions / Problems – Research objectives – Research hypotheses – characteristics – Research proposals – types – format of research proposal.

UNIT II RESEARCH DESIGN AND DATA COLLECTION

12

Research design – Definition – types of research design, Types of data – Primary Vs Secondary data – Methods of primary data collection – Survey, Observation, Interview – Construction of questionnaire /instrument – Validity and reliability testing - Sampling plan – Sample size – determinants of optimal sample size – sampling techniques – Sampling methods.

UNIT III EXPERIMENTS

12

Experimentation – purpose and principles of experimentation - Evaluation of experimentation – conducting an experiment – validity and reliability in experimentation – experimental research design – factor and levels- Overview of factorial design and Taguchi techniques.

UNIT IV DATA PREPARATION AND ANALYSIS

12

Data Preparation – editing – Coding –Data entry – Validity of data – Qualitative Vs Quantitative data analyses – Applications of Bivariate and Multivariate statistical techniques, Factor analysis, Discriminant analysis, Cluster analysis, Multiple regression and Correlation, Multidimensional scaling – Conjoint Analysis – Application of statistical software for data analysis.

UNIT V REPORT DESIGN, WRITING AND ETHICS IN BUSINESS RESEARCH 12

Research report –Types – Contents of report – need for executive summary – chapterization – contents of chapter – report writing – the role of audience – readability – comprehension – tone – final proof – ethics in research – Subjectivity and Objectivity in research- Ethical treatment of participants – informed consent- ethics and sponsor – ethics and report writing – plagiarism – Plagiarism guidelines – COPE guidelines.

TOTAL: 60 PERIODS**OUTCOMES :**

CO1 Students understand and appreciate scientific inquiry, formulate a research Problem and write research proposals.

CO2 The students would be able to design a research and devise measurement tools and select research participants.

CO3 Students understand and design an experimental study.

CO4 Students would analyze data and find solutions to the problems.

CO5 Students would develop knowledge on ethics in research and would write Research reports.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	2	3	2		2	2	2
CO 2	3	2	2	2		2	1	1
CO 3	3	3	2	1		3	1	1
CO 4	3	3	3			2	1	1
CO 5	3	3	2	2		2	1	1
Avg								

REFERENCES :

1. Donald R. Cooper, Pamela S. Schindler and J K Sharma, Business Research methods, 12th Edition, Tata Mc Graw Hill, New Delhi, 2018.
2. Bill Harley, Emma Bell, and Alan Bryman, Business Research methods, International Edition, Oxford University Press, 2020.
3. K. SriNagesh, Principles of Experimental Research, 1st edition, 2005, Elsevier Publications.
4. Uma Sekaran and Roger Bougie, Adapted by Mala Srivatsava, Research methods for Business, 8th Edition, An Indian Adaptation, Wiley India, New Delhi, 2021.
5. Pamela S. Schindler, Business Research methods, 13th Edition, Tata Mc Graw Hill, New Delhi, 2021.
6. William G Zikmund, Barry J Babin, Jon C.Carr, AtanuAdhikari, Mitch Griffin, Business Research methods, A South Asian Perspective, 9th Edition, Cengage Learning, New Delhi, 2016.
7. Douglas C Montgomery, Design and Analysis of experiments, Wiley , 8th Edition, 2013.

BA3251**OPERATIONS MANAGEMENT****L T P C****3 1 0 4****OBJECTIVE:**

- To provide an introduction to the field of operations management and explain the concepts, strategies, tools, and techniques for managing the transformation process that can lead to competitive advantage.

UNIT I INTRODUCTION**12**

Operations Management- Nature, Scope, Historical Development, Functions- Long term Vs Short term issues- A Systems Perspective- Challenges- Manufacturing Trends in India- Operations Strategy – Strategic fit, framework - Production Design and Process Planning- Types of Production Processes- Plant Capacity-Capacity Planning- Make or Buy Decisions

UNIT II FACILITY DESIGN 12
 Plant Location- Factors to be considered in Plant Location- Location Analysis Techniques- Choice of General Region, Particular community and Site- Multiple Plant Location Decision- Plant Location Trends. Layout of Manufacturing Facilities: Principles of a Good Layout- Layout Factors- Basic Types of Layout- Planning tools and techniques. Principles of Materials Handling- Materials Handling Equipment - Role of Ergonomics in Job Design.

UNIT III DESIGN OF WORK SYSTEMS 12
 Product Design - Criteria, Approaches. Product development process. Process design and analysis - Work Study-Objectives- Procedure- Method Study and Motion Study- Work Measurement-Time Study-Performance Rating- Allowance Factors- Standard Time- Work Sampling Techniques- Job Sequencing and Scheduling.

UNIT IV PLANNING AND INVENTORY CONTROL 12
 Operations planning – Aggregate Planning- Master Production Schedule, Material Requirements Planning. Basic Inventory Models- Economic Order Quantity- Economic Batch Quantity- Reorder Point-Safety Stock- Inventory Costs-Classification and Codification of Stock- ABC Classification-Materials. Supply Chain Management.

UNIT V QUALITY MANAGEMENT 12
 Definitions of quality-The Quality revolution-Quality gurus; TQM philosophies - Quality Management tools, certification and awards- Quality Control: Acceptance Sampling- The Operating Characteristic Curve- Control Charts for Variables and Attributes; Quality Circles Lean Management – philosophy- continuous improvement -Six sigma

TOTAL: 60 PERIODS

OUTCOMES:

- CO1:** Understand the concepts of production and its design, capacity planning and make or buy decisions and apply and adapt the concepts in managing operations.
- CO2:** Understand and apply location models to complex plant location decisions and choose among the different types of layout by applying layout planning tools.
- CO3:** Understand the different approaches, analyze, design and develop the work system.
- CO4:** Understand, apply and evaluate the various inventory models and choose the best inventory control policy.
- CO5:** Understand the quality management principles, apply the quality tools and develop a quality management system.

CO PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	3		1	1	3	2	
CO2	3	3	2	1	2	3	2	
CO3	3	3		1	2	3	2	2
CO4	3	3		1	1	3	2	
CO5	2	3	1	1	2	3	2	3
Ave.	2.8	3	0.6	1	1.6	3	2	1

READING LIST:

- 1. International Journal of Operations & Production Management – Emerald Insight
- 2. Journal of Operations Management – Wiley Online Library

REFERENCES:

- 1. Richard B. Chase, Ravi Shankar, F. Robert Jacobs, Operations and Supply Chain Management, McGraw Hill Education, 15th Edition (SIE), 2018.
- 2. Aswathappa K and Shridhara Bhat K, Production and Operations Management, 2nd Edition, Himalaya Publishing House, 2021.

3. Mahadevan B, Operations Management Theory and Practice, 3rd Edition, Pearson Education, 2015.
4. Russel and Taylor, Operations and Supply Chain Management, 8th Edition, Wiley, 2021.
5. William J Stevenson, Operations Management, 14th Edition, McGraw Hill, 2021.
6. Prof. K C Jain, Production and Operations Management, 1st Edition, Wiley, 2022.

BA3204

FINANCIAL MANAGEMENT

L T P C

3 1 0 4

OBJECTIVES:

Facilitate student

- Understand the operational nuances of a Finance Manager.
- Comprehend the technique of making decisions related to finance functions.

UNIT I INTRODUCTION TO FINANCIAL MANAGEMENT 12

Introduction - Financial Management – Definition, Scope and Objectives, Objectives of Financial Management -Major financial decisions – Profit maximization and Wealth maximization – Functions and Role of Finance Manager.

Long term Sources of Finance – Shares, Debentures, Preferred stock, Debt, Retained earnings, Lease, Hire Purchase, Venture Capital financing, Private Equity. Time Value of Money – Concept of Risk and Return – single asset and of a portfolio.

UNIT II INVESTMENT DECISIONS 12

Capital Budgeting: Principles, process and techniques - Evaluation Techniques: Payback Period, Accounting Rate of Return, Net Present Value, Internal Rate of Return, Profitability Index - Comparison of DCF techniques. Risk Analysis in Capital Budgeting – Techniques – CE method, RAD method, Decision-tree analysis.

UNIT III FINANCING DECISION I 12

Cost of Capital - Cost of specific sources of capital – Cost of Equity capital – Cost of Debt – Cost of Preference – Cost of Retained earnings – Weighted Average Cost of Capital.

Leverages - Operating and Financial leverage – measurement of leverages – Degree of Operating, Financial leverage, Combined leverage - EBIT – EPS Analysis- Indifference point.

UNIT IV FINANCING DECISION II AND DIVIDEND DECISION 12

Capital structure – Factors affecting Capital structure – Optimal Capital Structure – Capital Structure Theories – Net Income Approach, Net Operating Income Approach, MM Approach, Traditional Approach.

Dividend and Dividend Policy –Meaning, classification and sources for dividends – Dividend Policy in general - Determinants of dividend policy – Types of dividend policies.

UNIT V WORKING CAPITAL MANAGEMENT 12

Working Capital Management –Definition and Objectives – Working Capital Policies – Factors affecting working capital requirements – Forecasting working capital - Receivables Management - Inventory management – Cash management - Working capital finance (short-term sources) – Implications of various Committee Reports.

TOTAL: 60 PERIODS

COURSE OUTCOMES:

CO1: Understand the concepts of financial management and recognize the time value of money and long-term sources of finance

CO2: Apply the capital budgeting techniques for investment decision-making

CO3: Apply the techniques of calculating specific and weighted average cost of capital and leverage analysis

CO4: Understand the decision of capital structure and distribution of dividend

CO5: Understand the concept of Working Capital and estimate working capital for the future.

CO6: Analyse the financial information and take the important financial decisions

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1				2		2	2	
CO 2	2	3				2	2	
CO 3		2					3	
CO 4						2	3	
CO 5	2	2		3			2	
CO 6	2	2		3		2	2	

READING LIST:

1. <https://accountingexplained.com/managerial/capital-budgeting/>
2. <http://www.studyfinance.com/lessons/workcap>
3. Journal of International Financial Management & Accounting
4. The Management Accountant Journal - icmai-rnj.in

REFERENCES:

1. I M. Pandey Financial Management, Pearson, 12th edition, 2021
2. James C. Vanhorne –Fundamentals of Financial Management– Pearson, 13th Edition, 2015.
3. Prasanna Chandra, Financial Management, McGraw Hill Education, 11th edition 2023.
4. Brigham, Ehrhardt, Financial Management Theory and Practice, Cengage Learning, 15th edition, 2017.
5. M.Y. Khan and P.K.Jain. Financial management, Text, Problems and cases Tata McGraw Hill, 8th edition, 2018
6. S.N.Maheswari, Finanacial Management, Sulthan Chand & Sons, 15th Edition, 2019
7. Brigham, E.F. and Ehrhardt, M.C., Financial Management: Theory and Practice, 14th Edition, 2015
8. AswathDamodaran, Corporate Finance Theory and practice, John Wiley & Sons, 2011

BA3205

ENTREPRENEURSHIP DEVELOPMENT

L T P C

3 0 0 3

OBJECTIVES:

- To equip and develop the learners entrepreneurial skills and qualities essential to undertake business.

UNIT I INTRODUCTION

9

The Entrepreneur – Definition – Characteristics of Successful entrepreneur. Entrepreneurial scene in India; MSME; Analysis of entrepreneurial growth in different communities – Case histories of successful entrepreneurs. Similarities and Distinguish between Entrepreneur and Intrapreneur.

UNIT II INNOVATION IN BUSINESS

9

Types of Innovation – Creating and Identifying Opportunities for Innovation – Design Thinking- The Technological Innovation Process – Creating New Technological Innovation and Intrapreneurship – Licensing – Patent Rights – Innovation in Indian Firms.

UNIT III NEW VENTURE CREATION

9

Identifying Opportunities for New Venture Creation: Environment Scanning – Generation of New Ideas for Products and Services. Creating, Shaping, Recognition, Seizing and Screening of Opportunities. Feasibility Analysis: Technical Feasibility of Products and Services – Marketing Feasibility: Marketing Methods – Pricing Policy and Distribution Channels.

UNIT IV BUSINESS PLAN PREPARATION 9

Benefits of a Business Plan – Elements of the Business Plan – Developing a Business Plan – Guidelines for preparing a Business Plan – Format and Presentation; Start-ups and e-commerce Start-ups. Business Model Canvas.

UNIT V FINANCING THE NEW VENTURE 9

Capital structure and working capital Management: Financial appraisal of new project, Role of Banks – Credit appraisal by banks. Institutional Finance to Small Industries – Incentives – Institutional Arrangement and Encouragement of Entrepreneurship.

TOTAL: 45 PERIODS

COURSE OUTCOMES

On completion of this course, students will;

CO1: Be able to know about growth of entrepreneurship in India.

CO2: Gain knowledge on innovation, its types, role of technology in innovation, patents and licensing.

CO3: Obtain knowledge on new venture creation.

CO4: Be able to prepare a business plan.

CO5: Gain knowledge on various types of financing available for new ventures.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1				3			3	
CO 2							3	2
CO 3						2	3	
CO 4							3	2
CO 5							3	3

READING LIST

1. <http://www.jimssouthdelhi.com/sm/BBA6/ED.pdf>
2. <http://www.cengage.com/highered>
3. <https://roadmapresearch.com/entrepreneurship-beyond-curriculum>
4. The International Journal of Entrepreneurship and Innovation

REFERENCES BOOKS

1. Reddy, N., Entrepreneurship: Text and Cases, Cengage Learning, 2010.
2. Roy, R., Entrepreneurship, 2nd Edition, Oxford University Press, 2011.
3. R.D.Hisrich, Entrepreneurship, 11th Edition, Tata McGraw Hill, New Delhi, 2020.
4. Bessant, J., and Tidd, J., Innovation and Entrepreneurship, 2nd Edition, John Wiley & Sons, 2011.
5. Desai, V., Small Scale Industries and Entrepreneurship, Himalaya Publishing House, 2018.
6. Entrepreneurship: Successfully Launching New Ventures, Global Edition, 6th Edition Bruce R. Barringer, Texas A & M University, R. Duane Ireland, ©2018 |Pearson.
7. CB Gupta Entrepreneurship – Text and Cases, Sultan Chand & Sons, 2023.

OBJECTIVES:

- To develop an appreciation of culture, life-style and wisdom among students, and to apply classroom knowledge of courses to field realities and thereby improve learning

COURSE CONTENT:

1. Dynamics of society: Social, economic, political and cultural; Identifying groups in the community like women, children, elderly and disabled	6
2. Community goal setting: Inner Engineering	6
3. Participatory learning and social mapping: Approaches and methods, community mapping, project proposal and project management, concept and steps, Thematic maps	12
4. National development programs: History, status and way forward	6
5. Resource Mapping: Natural and Human resource mapping and management	6
6. Institutions: Engagement with school/ street/ Health center/ Panchayat/ SHGs	6
7. Community Awareness: Health & Hygiene/ Rights/ Policies and Programmes	6
8. Disaster Management: Disaster Preparedness - Risk reduction, Rehabilitation- Physical and psychological aspects	6
9. Professional Intervention: Partnership with Public, Private and Non-governmental organizations	6

TOTAL: 60 PERIODS**COURSE OUTCOMES:****CO1:** Familiarise the students with the concept of community and social realities**CO2:** In depth knowledge on institutions operating in the community**CO3:** Ability to devise plans for disaster response and management**CO4:** In depth knowledge of health and hygiene, rights and policies and programs in community**CO5:** Identify the opportunities for contributing to community's socio-economic improvements**CO-PO MAPPING**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1			2			1	1	3
CO2			2			1	1	3
CO3			2			1	1	3
CO4			2			1	1	3
CO5			2			1	3	3
Avg			2			1	1.4	3

REFERENCES:

- de Weger, Esther & Vooren, N. & Luijckx, K. & Baan, Caroline & Drewes, H.. (2018). Achieving successful community engagement: A rapid realist review. BMC Health Services Research. 18. 10.1186/s12913-018-3090-
- Singh, Katar, Rural Development : Principles, Policies and Management, Sage Publications, New Delhi, 2015.
- A Hand book on Village Panchayat Administration, Rajiv Gandhi Chair for Panchayati Raj Studies, 2002.
- United Nations, Sustainable Development Goals, 2015 un.org/sdgs/
- M.P.Boraian, Best Practices in Rural Development, Shanlax Publishers, 2016.
- Principles of Community Engagement, 2nd Edition, NIH Publication No. 11-7782, Printed June 2011.

COURSE OBJECTIVE

- The objective of the course is to equip students with essential computing skills using spreadsheets and analytical tools, enabling them to effectively analyze data, make informed decisions, and solve business problems.

S.No.	Exp. No.	Details of experiments	Duration
		Name	
1	1	Navigation <ul style="list-style-type: none"> Basic Spreadsheet Formulas Structuring Data in a spreadsheet Intermediate Spreadsheet Functions 	8
2	2	Descriptive Statistics <ul style="list-style-type: none"> Pie Charts Histograms Bar Charts Line Charts Box and Whisker Radial Charts Combo Charts Scatter Plots Conditional Formatting Sparklines 	12
3	3	Hypothesis Testing and Regression <ul style="list-style-type: none"> T-tests Chi-Squared Test Test for Normality ANOVA Simple Regression Multi-Variate Regression 	12
4	4	Analytical Tools <ul style="list-style-type: none"> Goal Seek Scenario Analysis Data Tables Pivot Tables <ul style="list-style-type: none"> Root Cause Analysis Comparative Analysis Pivot Charts and Slicers 	14
5	5	Spreadsheet Solver Tool <ul style="list-style-type: none"> The Backpack Problem The Mixing Problem The Traveling Salesman Problem Forecasting <ul style="list-style-type: none"> Factor Forecasting - Regression Factor Forecasting - Monte Carlo Simulation 	14

		<ul style="list-style-type: none"> ○ Time Series Forecasting - The Simple Moving Average ○ Time Series Forecasting - Parameter Tuning ○ Time Series Forecasting - Auto Regression ○ Time Series Forecasting - Time Series ARMA 	
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Total : 60 PERIODS

Course Outcomes:

CO1: Apply fundamental spreadsheet functions and formulas to structure and manipulate data effectively.

CO2: Utilize descriptive statistics and various chart types to visualize and communicate data insights.

CO3: Understand and apply hypothesis testing and regression techniques for data analysis and decision-making.

CO4: Utilize analytical tools such as Goal Seek, Scenario Analysis, and Pivot Tables for problem-solving and decision support.

CO5: Apply forecasting techniques, including factor forecasting and time series forecasting, to predict future trends and make informed decisions.

CO-PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	1	-	3	2	1	1	3
CO 2	3	3	2	3	2	2	2	3
CO 3	3	3	2	3	2	2	2	3
CO 4	3	3	2	3	2	2	2	3
CO5	3	3	2	3	2	2	2	3
Avg	3	1	1.6	3	2	1	1	3

REFERENCES

1. David R.Anderson, et. al,"An Introduction to management sciences : Quantitative Approaches to Decision Making", (14th edition) South-Western College Pub, 2019
2. William J. Stevenson, CeyhunOzgun,"Introduction to Management Science with Spreadsheet", Tata McGrawHill, 2016.
3. Hansa Lysander Manohar,"Data Analysis and Business Modelling using Microsoft Excel" PHI, 2017.
4. David M. Levine et al, "Statistics for Managers using MS Excel" (8th Edition) Pearson, 2016
5. Minnick, C.WebKit for Dummies. John Wiley & Sons,(2012).
6. Wyne L. Winston " Microsoft Excel 2019:Data Analysis and Business Model, 6th Edition, PHI. 2019
7. Alan Murry , " Advanced Excel Success -A practical guide to master Excel ", Apress, 2020.

BA3301

STRATEGIC MANAGEMENT

**L T P C
4 0 0 4**

COURSE OBJECTIVES

1. To enable the students understand the importance of vision and mission in framing corporate strategy.
2. To provide insights on how business is responsible socially and ethically.
3. To highlight on the environmental analysis framework.
4. To throw light on strategic formulation and strategic choice.
5. To understand strategic implementation and strategic control.

UNIT I INTRODUCTION 12
 Strategy – Strategic Management Process – Developing a Strategic Vision –Mission- Setting Objectives– Strategies and Tactics – Importance of Corporate Strategy – the 7-S Framework- Corporate Governance– Board of Directors: Role and Functions – Board Functioning – Top Management: Role and Skills.

UNIT II CORPORATE POLICY AND PLANNING IN INDIA 12
 Importance – Characteristics – Objectives - Policy Formulation and Development – Types of Business Policies-Implementation of Policies. Society and Business: Social Responsibility of Business –Corporate Governance and Ethical Responsibility.

UNIT III ENVIRONMENTAL ANALYSIS 12
 Environmental Scanning – Industry Analysis - The Synthesis of External Factors - Internal Scanning – Value Chain Analysis – SWOT Audit –Scenario planning- Creating an Industry Matrix.

UNIT IV STRATEGY FORMULATION AND ANALYSIS 12
 Strategy Formulation – Strategic Factors Analysis Summary Matrix (SFAS) Portfolio Analysis – Business Strategy- TOWS Matrix– Corporate Strategy – Functional Strategy – Strategic Choice – Generic, Competitive Strategies; ETOP, TOWS.

UNIT V STRATEGY IMPLEMENTATION 12
 Strategy Implementation - Corporate Culture – Matching Organisation Structure to Strategy – Mergers and Acquisitions and Diversifications – Strategic Leadership Strategic Control: Measurement in Performance- Problems in Measurement of Performance- Strategy Audit- Strategic Control Process – Du Pont’s Control Model – Balanced Score Card – Michael Porter’s Framework for Strategic Management – Future of Strategic Management – Strategic Information System.

TOTAL: 60 PERIODS

COURSE OUTCOMES

- CO1:** Be able to frame vision and mission statements.
- CO2:** Be social and ethically responsible.
- CO3:** Possess insights on making environmental analysis.
- CO4:** Possess knowledge on learning strategic formulation & strategy choice.
- CO4:** Understanding strategic implementation and control.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1			3	2			3	
CO 2			3					3
CO 3			2					3
CO 4		2			3			2
CO 5				3	3			3

READING LIST

1. Strategic Management Journal – Wiley online Library
2. Journal of strategy and Management – Emerald Insight
3. Mastering Strategic Management – <http://www.opentextbooks.org.hk>
4. Mastering Strategic Management – <http://www.saylor.org>

REFERENCES

1. V S P Rao, Strategic Management Text and Cases, 2nd edition 2013.
2. Kazmi, A., Strategic Management and Business Policy, 15th Edition, Tata McGraw-Hill Education, 2018.

3. Dess, G., Lumpkin, G.T. and Eisner, A., Strategic Management, 8th Edition, Tata McGraw-Hill, 2018.
4. Hill, C.W.L. and Jones, G.R., Strategic Management: An Integrated Approach, 9th Edition, Cengage Learning, 2012.
5. Pearce II, J., Robinson, R.B. and Mittal, A., Strategic Management: Formulation, Implementation and Control, 12th Edition, McGraw-Hill, 2017.
6. Wheelen, T.L. and Hunger, D., Strategic Management and Business Policy, 13th Edition, Pearson, 2012.

BA3302

INTERNATIONAL BUSINESS

L T P C

3 0 0 3

UNIT I INTRODUCTION

9

Introduction to International Business: Importance, nature and scope of International business-International Business Vs. Domestic Business; Tariff and non-tariff barriers-transition from Domestic to International Business; Advantages and disadvantages of International business; Balance of Payments; Balance of Trade; Balance of Current Account . Modes of entry into International Business- Internationalization process and managerial implications- Multinational Corporations and their involvement in International Business - Issues in foreign investments, technology transfer, pricing and regulations, global supply chain risks - International collaborative arrangements and strategic alliances- Counter Trade; Import-Export Process and Documentation.

UNIT II INTERNATIONAL BUSINESS ENVIRONMENT AND CULTURAL DIFFERENCES

9

International Business Environment: Economic, Political, Cultural and Legal environments in International Business. Framework for analyzing International Business environment. Differences in Culture: Introduction — Social Structure — Religion — Language — Education — Culture and the Workplace — Cultural Change — Cross-cultural Literacy — Culture and Competitive Advantage – Managing globally distributed teams.

UNIT III INTERNATIONAL TRADE THEORY

9

Introduction — Mercantilism, Neo-Mercantilism — Theory of Absolute Advantage — Theory of Comparative Advantage — Heckscher-Ohlin Theory — The New Trade Theory — National Competitive Advantage — Porter's Diamond — General Agreement on Tariff and Trade (GATT)- World Trade Organization (WTO)-GATS-UNCTAD- Trade Blocks; Customs Union- EU- PTA- European Free Trade Area (EFTA)-Central American Common Market(CACM)- Latin American Free Trade Association(LAFTA)- North American Free Trade Agreement(NAFTA)- Association of South East Asian Nations(ASEAN)- CARICOM- GSTP- GSP-SAPTA-Indian Ocean RIM Initiative- BIMSTEC- Bretton Woods Twins- World Bank & IMF, International Finance Corporation- Multilateral Investment Guarantee Agency (MIGA).

UNIT IV GLOBAL TRADING AND INVESTMENT ENVIRONMENT

9

Recent Trends in India's Foreign Trade- India's Commercial Relations and Trade Agreements with other countries – India's foreign policy Institutional Infrastructure for export promotion in India- Export Assistance- Export Finance- Export Processing Zones (EPZs) - Special Economic Zones (SEZs)- Exports by Air, Post and Sea- Small Scale Industries (SSI) and Exports- Role of ECGC- Role of EXIM Bank of India- Role of Commodity Boards- Role of State Trading Agencies in Foreign Trade- STC, MMTC, etc. Foreign Exchange Market- Functions of Foreign Exchange Market- Foreign Direct Investments (FDI); forms of FDI — Horizontal and Vertical Foreign Direct Investment — Advantages of FDI to Host and Home Countries.

UNIT V CONTEMPORARY ISSUES**9**

Contemporary Issues in International Business- International Sales Contract- Major Laws- INCO terms- Standard Clauses of International Sales Contract- Role of Indian Council of Arbitration / International Chamber of Commerce in solving Trade disputes. Export Regulations: Procedure for export of goods- Quality Control and Pre-shipment Inspection- Customs Clearance- Port formalities- Exchange regulations for Export - Role of Clearing and Forwarding Agents.

TOTAL: 45 PERIODS**COURSE OUTCOMES**

On completion of this course, students will;

- CO1:** Understand implications of factors at the international level on business and evaluate international collaborative arrangements and strategic alliances.
- CO2:** Understand political, legal, economic and cultural country differences and develop competitive strategies in foreign, regional and global markets.
- CO3:** Apply the various international trade theories in the management of business functional operations in an international context.
- CO4:** Evaluate barriers, opportunities, market entry modes and the process of internationalization.
- CO5:** Understand the regional economic integration and contemporary issues in international business.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	2	2		3	-	2	2	
CO 2	2	2		2		3	2	1
CO 3	2	2		3		3	3	1
CO 4		3		3		2	3	
CO 5	2	2		2		3	3	3

READING LIST

1. <http://www.internationalbusinesscorporation.com>
2. <http://www.business-ethics.org>
3. <https://www.jstor.org/journal/jintebusistud> \t "_blank
4. Journal of International Business and Management (JIBM)
5. <https://internationalbusinessguide.org/international-business-organizations-and-resource-list/>

REFERENCES BOOKS

1. International Business: Competing in the Global Marketplace (SIE) | 11th Edition – 14 August 2018 by Charles W. L. Hill (Author), G. Tomas M. Hult (Author), Rohit Mehtani (Author), McGraw Hill
2. International Business | Fourth Edition | By Pearson – 30 November 2017 by S. Tamer Cavusgil (Author), Gary Knight (Author), John Riesenberger (Author)
3. Cherunilam, F., International Business: Text and Cases, 5th Edition, PHI Learning, 2010.
4. Paul, J., International Business, 5th Edition, PHI Learning, 2010.
5. Deresky, H., International Management: Managing Across Borders and Cultures, 6th Edition, Pearson, 2011.
6. Griffin, R., International Business, 7th Edition, Pearson Education, 2012.

OBJECTIVES:

- To learn more about self-leadership and developing team-building skills through case studies and examples.

UNIT I LEADERSHIP THEORIES

Nature of leadership theories & models of leadership - attributes of effective leaders - traits of leadership - interpersonal competence & leadership.

UNIT II LEADERSHIP STYLES

Leadership qualities -styles of leadership -attitudes-role models & new leadership patterns- cultural differences and diversity in leadership - leader behaviour - leadership in different countries- ethical leadership - social responsibility of leaders.

UNIT III LEADERSHIP SKILLS

Leadership skills - Leadership & management - transactional & transformational leadership -Strength based leadership in practice - Tasks & Relationship approach in leadership – influential tactics of leaders- motivation and coaching skills. Establishing constructive climate- listening to out group members- communication and conflict resolution skills.

UNIT IV TEAM WORK

Working in group & teams - characteristics of effective teams- types- team development: Tuckman's team development stages- Belbin team roles - Ginnett team effectiveness leadership model.

UNIT V EXPLORING TEAM ROLES AND PROCESSES

Mapping the stages of group development -Building: and developing teams-overcoming resistance coping , conflict and Ego-leading a team by managing meetings.

TOTAL: 60 PERIODS**COURSE OUTCOMES:**

- CO1:** Critical understanding of theories and concepts of leadership and teamwork in Organizations.
- CO2:** Critical awareness of the importance of teamwork and development of the skills for building effective teams.
- CO3:** Understanding of the techniques and practical understanding of how to apply theories and concepts to improve leadership skills.
- CO4:** Development of skills in effective leadership and professional communication.
- CO5:** Demonstrate effective written communication skills for plans, strategies and outcomes.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1				3	3	3	3	
CO 2				3	3	3	3	
CO 3		3		3	3	3	3	
CO 4				3	3	3	3	
CO 5				3		3	3	

READING LIST

- D.K. Tripathy, Team Building and Leadership with Texts and Cases, Himalaya Publishing House, 2014
- International Journal on Leadership, Publishing India Group
- International Journal of Organizational Leadership, CIKD

REFERENCES:

1. Gonda, C. M. (2016) Master of Business Etiquette: The Ultimate Guide to Corporate Etiquette and Soft Skills Embassy Books, First Edition.
2. Mehra, S. K. (2012) Business Etiquette A Guide For The Indian Professional. Nouna: HarperCollins
3. Pachter, B. (2013). The Essentials of Business Etiquette: How to Greet, Eat, and Tweet Your Way to Success (1) edition New York: McGraw-Hill Education.
4. Past, K. (2008). Indian Business Etiquette: 1 (First edition). Ahmedabad Jaico Publishing House.
5. Travis, R. (2013). Tech Etiquette: OMG, 2 Edition, RLT Publishing.
6. Gonda, C. M. (2016) Master of Business Etiquette: The Ultimate Guide to Corporate Etiquette and Soft Skills Embassy Books, First Edition.

BA3001

CORPORATE GOVERNANCE

L T P C
3 0 0 3

OBJECTIVE:

- The course will help to relate the corporate government practices of an organization to its performance, and to develop the technical skills required to evaluate the governance of a company from the perspective of an investor (individual or organizational capacity).

UNIT I FUNDAMENTAL OF CORPORATE AND GOVERNANCE

9

Understanding Corporate Governance: Corporate governance – an overview, History of corporate governance-Concept of corporations -Concept of extended view of corporate citizenship, Owners and stakeholders, Types of owners, Rights and privileges of shareholders (Fernando, 4), Ownership structures and corporate governance- Pyramids and Tunneling;- Issues of corporate control and cash flow rights- Examples from restructure proposals of Vedanta group -Need for investor protection.

UNIT II THEORIES AND PRACTICE OF CORPORATE GOVERNANCE

9

Concepts of Corporate Governance-Theory & practices of corporate governance, corporate governance mechanism and overview – land marks in emergence of corporate governance. Perspectives on Corporate Governance-Market and control model of governance chainGlobal Corporate Governance Practices - Anglo-American Model - German Model - Japanese Model - Landmarks in Emergence of Corporate Governance- Board of Directors: Powerful Instrument of Governance - Types of Directors - Importance of Independent Directors.

UNIT III ADMINISTRATIVE AND AUDIT MECHANISM

9

Board Committees and Chairman - Separation OF CEO & Board Chairman post - Nomination Committee - Board Selection - Boards Performance Evaluation- Executive Compensation - Role of Remuneration Committee - Human Side of Governance- Financial Oversight and Audit Mechanisms - Audit Committee - Disclosure mechanisms - Role of SEBI.

UNIT IV GOVERNANCE METHODS AND RATING

9

Governance and Risk Management • Risk Management Committee - Corporate Misconduct & Misgovernance- Reasons for Corporate Misconduct - Whistle Blower's Protection - Factors Responsible for Obstructing Effective Corporate Governance Practices- Corporate Governance Rating • Standard & Poor's Corporate Governance Scores • Corporate Governance Rating Methodology (Crisil).

UNIT V GOVERNANCE ISSUES AND PRACTICES

9

Governance of Financial Organizations & PSU's- Organizational patterns of PSU's - Powers of PSU Boards - Governance issues in Entrepreneurial Firms - Unique issues among entrepreneurial forms- Choosing Board of Directors and Venture capitalists - Role of venture capitalists and buy-outs- Corporate Governance in Practice - Governance issues in MNC's & Joint Ventures.

TOTAL: 45 PERIODS

OUTCOMES:**CO1:** Demonstrate a solid understating of the purpose and nature of corporations.**CO2:** Evaluate different stakeholder's roles and significance in relations to corporate governance.**CO3:** Explain the importance of regulation, markets and information in corporate governance.**CO4:** Understand corporate governance methods and practices.**CO5:** Critically assess governance concerns for individual corporation and their stakeholders**CO PO MAPPING**

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	2	1	2	2	2	1	2
CO 2	3	2	3	2	2	2	1	1
CO 3	3	2	3	2	2	2	1	1
CO 4	3	2	1	2	2	2	1	2
CO5	3	2	3	2	2	2	1	1

REFERENCES :

1. Mandal, S.K (2012). Ethics in Business and Corporate Governance, 2/e; New Delhi: McGraw Hill Education
2. Cadbury, Adrian, Corporate Governance and Chairmanship: a personal view, Oxford University Press, 2003
3. Chandratre, K R and A N Navare, Corporate Governance – A Practical Handbook, Bharat Law House Pvt. Ltd., 2010 Edn
4. Saleem Sheikh & William Rees, Corporate Governance & Corporate Control, Cavendish Publishing Ltd.,1995
5. Fernando, A.C (2012). Corporate Governance: Principles, Policies and Practices, 2/e; New Delhi: Pearson
6. Jain, Arun K (2010). Corporate Governance: Strategy and Ethics, New Delhi: McGraw Hill Education

BA3002**MICRO SMALL AND MEDIUM ENTERPRISES****L T P C
3 0 0 3****OBJECTIVES:**

- To familiarize students with the theory and practice of small business management.
- To learn the legal issues faced by small business and how they impact operations.

UNIT I INTRODUCTION TO SMALL BUSINESS**9**

Creation, Innovation, entrepreneurship and small business - Defining Small Business –Role of Owner – Manager – government policy towards small business sector –elements of entrepreneurship –evolution of entrepreneurship –Types of Entrepreneurship – social, civic, corporate - Business life cycle - barriers and triggers to new venture creation – process to assist start ups – small business and family business.

UNIT II SCREENING THE BUSINESS OPPORTUNITY AND FORMULATING THE BUSINESS PLAN**9**

Concepts of opportunity recognition; Key factors leading to new venture failure; New venture screening process; Applying new venture screening process to the early stage small firm Role planning in small business – importance of strategy formulation – management skills for small business creation and development.

UNIT III BUILDING THE RIGHT TEAM AND MARKETING STRATEGY 9

Management and Leadership – employee assessments – Tuckman’s stages of group development - The entrepreneurial process model - Delegation and team building - Comparison of HR management in small and large firms - Importance of coaching and how to apply a coaching model. Marketing within the small business - success strategies for small business marketing - customer delight and business generating systems, - market research, - assessing market performance-sales management and strategy - the marketing mix and marketing strategy.

UNIT IV FINANCING SMALL BUSINESS 9

Main sources of entrepreneurial capital; Nature of ‘bootstrap’ financing - Difference between cash and profit - Nature of bank financing and equity financing - Funding-equity gap for small firms. Importance of working capital cycle - Calculation of break-even point - Power of gross profit margin- Pricing for profit - Credit policy issues and relating these to cash flow management and profitability.

UNIT V VALUING SMALL BUSINESS AND CRISIS MANAGEMENT 9

Causes of small business failure - Danger signals of impending trouble - Characteristics of poorly performing firms - Turnaround strategies, Concept of business valuation - Different valuation measurements - Nature of goodwill and how to measure it - Advantages and disadvantages of buying an established small firm - Process of preparing a business for sale.

TOTAL: 45 PERIODS**COURSE OUTCOMES:****CO1:** Familiarise the students with the concept of small business**CO2:** In depth knowledge on small business opportunities and challenges**CO3:** Ability to devise plans for small business by building the right skills and marketing strategies**CO4:** Identify the funding source for small start ups**CO5:** Business evaluation for buying and selling of small firms**CO PO MAPPING**

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	2	2	1	-	1	-	1	2
CO 2	3	3	3	3	3	3	3	2
CO 3	3	3	2	2	3	3	2	3
CO 4	3	2	2	-	2	1	2	-
CO 5	3	2	2	3	2	1	3	2
Avg.								

REFERENCES:

- 1) Rao and Sreekrishna, Micro, Small and Medium Enterprises, 2018, KY Publications.
- 2) Charania, Business Stories: 16 stories of successful MSMEs, 2017, Notion Press.
- 3) Raju, The Story of Indian MSMEs, 2019, Konark Publishers.
- 4) Hankinson, A.(2000). “The key factors in the profile of small firm owner-managers that influence business performance. The South Coast Small Firms Survey, 1997-2000.” Industrial and Commercial Training 32(3):94-98.
- 5) Parker, R.(2000). “Small is not necessarily beautiful: An evaluation of policy support for small and medium-sized enterprise in Australia.” Australian Journal of Political Science 35(2):239- 253

OBJECTIVE :

- To understand intellectual property rights and its valuation.

UNIT I INTRODUCTION**9**

Intellectual property rights - Introduction, Basic concepts, Nature of Intellectual Property, Categories of Intellectual Property - Patents, Copyrights, Trademarks, Trade Secrets or Undisclosed Information, Geographic Indications, Integrated Layout Circuit Designs, Plant Varieties and Farmer's Rights, Biological Diversity and Traditional Knowledge; IP System - Institutions for Administering the IP system – National Patent Offices – WTO – WIPO

UNIT II PATENTS, COPYRIGHTS AND TRADEMARKS**9**

New Developments in IPR – Criteria for Patents – Types - Administration of Patent system in India - Procedure for grant of Patents - Patenting under Patent Cooperation Treaty - Patenting in foreign countries. Copyrights – Protection in India- International Association – Enforcement Measures – Rights of a Copyrights Owner – IT and Copyrights - Exceptions; Trademarks – Types of protectable Marks – Infringement – Trademark Registration in India

UNIT III INDUSTRIAL DESIGNS, GEOGRAPHICAL INDICATIONS AND TRADE SECRETS**9**

Industrial Design - Protection of Industrial Designs- Hague System – Procedure for filing Design Application; Geographical Indications – Indian Scenario – International Scenario; Trade Secrets – Types – Protection in India – Trade Secret Protection Strategy

UNIT IV STATUTES AND TREATIES**9**

The Patent Act of India - Patent Amendment Act (2005) - Design Act, Trademark Act, Geographical Indication Act, Bayh- Dole Act - International Treaties and conventions on IPRs - The TRIPs Agreement- PCT Agreement

UNIT V STRATEGIES IN INTELLECTUAL PROPERTY MODELS**9**

IP Management – Drivers – Framework – IP Strategies – Strategic Considerations - The technologies Know-how, concept of ownership, Significance of IP in Value Creation, IP Licensing – Types of Licencing Agreements – Contractual Agreements – IP Insurance – IP Valuation and IP Valuation Methods, Patent Information and databases, IPR strength in India, Biodiversity and Traditional Knowledge, Case studies.

TOTAL: 45 PERIODS**OUTCOMES:**

On completion of this Course, the students will be able to

CO1: Define, categorize and decide on how to protect intellectual property

CO2: Understand and apply for patents, copyrights and trademarks and devise methods to protect their rights and of intellectual property, and appreciation of the need to protect it

CO3: Understand and apply for Industrial designs, GIs and trade secrets and devise methods to protect their rights

CO4: Understand, apply and defend under the various statutes

CO5: Understand and analyze different strategies and develop their IP strategy

CO PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1			1	1	1	3	2	1
CO2		2	2	1	1	3	3	1
CO3		2	2	1	1	3	3	1
CO4			2	1	1	3	2	1
CO5		3	2	1	3	3	2	1
Ave.		1.4	1.8	1	1.4	3	2.4	1

READING LIST:

1. Official website of Intellectual Property India – <https://ipindia.gov.in/>
2. https://www.wto.org/english/tratop_e/trips_e/intel1_e.htm
3. The Journal of World Intellectual Property- Wiley Online Library - <https://onlinelibrary.wiley.com/journal/17471796>

REFERENCES:

1. Manju Pathak, An Introduction to Intellectual Property Rights, New India Publishing Agency, 2014.
2. VinodV. Sople, Managing Intellectual Property: The Strategic Imperative, PHI Learning Pvt Ltd. 5th Edition, 2016.
3. Myra Tawfik and KarimaBawa, TheIntellectual Property Guide: IP Literacy and Strategy Basics for Supporting Innovation, Brush Education Inc., 2019.
4. Alexander I. Poltorak and Paul J. Lerner, Essentials of Intellectual Property: Law Economics and Strategy, Wiley, 2nd Edition, 2011.
5. WIPO Intellectual Property Hand book, WIPO Publication, 2004.

BA3071

SUSTAINABLE MANAGEMENT

**L T P C
3 0 0 3**

OBJECTIVE:

- To provide students with fundamental knowledge of the notion of corporate sustainability

UNIT I MANAGEMENT OF SUSTAINABILITY 9

Management of sustainability -rationale and political trends: An introduction to sustainability management, International and European policies on sustainable development, theoretical pillars in sustainability management studies.

UNIT II CORPORATE SUSTAINABILITY AND RESPONSIBILITY 9

Corporate sustainability perimeter, corporate sustainability institutional framework, integration of sustainability into strategic planning and regular business practices, fundamentals of stakeholder engagement.

UNIT III SUSTAINABILITY MANAGEMENT: STRATEGIES AND APPROACHES 9

Corporate sustainability management and competitiveness: Sustainability-oriented corporate strategies, markets and competitiveness, Green Management between theory and practice, Sustainable Consumption and Green Marketing strategies, Environmental regulation and strategic postures; Green Management approaches and tools; Green engineering: clean technologies and innovation processes; Sustainable Supply Chain Management and Procurement

UNIT IV SUSTAINABILITY AND INNOVATION 9

Socio-technical transitions and sustainability, Sustainable entrepreneurship, Sustainable pioneers in green market niches, Smart communities and smart specializations.

UNIT V SUSTAINABLE MANAGEMENT OF RESOURCES, COMMODITIES AND COMMONS 9

Energy management, Water management, Waste management. Recent trends in Sustainable Management.

TOTAL: 45 PERIODS

OUTCOMES:

CO1: An understanding of sustainability management as an approach to aid in evaluating and minimizing environmental impacts while achieving the expected social impact

CO2: Learn about corporate sustainability and responsible Business Practices

CO3: Develop ability to understand, to measure and interpret sustainability performances.

CO4: Posses Knowledge of innovative practices in sustainable business and community management

CO5: Learn to develop Sustainability in Business and commodities

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3	2	3	2	2	1	2
CO 2	3	2	2	3	1	2	2	3
CO 3	3	3	1	3	3	3	2	3
CO 4	3	3	2	3	3	2	1	3
CO5	3	3	2	3	2	2	1	3

REFERENCES:

1. Daddi, T., Iraldo, F., Testa, Environmental Certification for Organizations and Products: Management, 2015
2. Christian N. Madu, Handbook of Sustainability Management 2012
3. Petra Molthan-Hill, The Business Student's Guide to Sustainable Management: Principles and Practice, 2014
4. Margaret Robertson, Sustainability Principles and Practice, 2014
5. Peter Rogers, An Introduction to Sustainable Development, 2008
6. Introduction to Sustainable Development, Sage, 2018
7. Managing in the New World Order: Strategies for Sustainable Business Development, Excel Books, 2010

BA3004 SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

L T P C
3 0 0 3

OBJECTIVE:

Enables student to understand the nuances of stock market operations and the techniques involved in deciding upon purchase or sale of securities.

UNIT I INTRODUCTION TO INVESTMENTS 9

Introduction to investing – Investment vs speculation, investment process, categories. Securities Markets – Functions of markets, primary and secondary markets, Over the Counter Markets and Size of Order. Risk and Return – returns elements, measurement, scientific predicting, Capital Allocation. Introduction to Bonds – Types and markets.

UNIT II FUNDAMENTAL ANALYSIS 9

Economic Analysis: Economic forecasting and stock Investment Decisions – Forecasting techniques. Industry Analysis: Industry classification, Industry life cycle. Company Analysis: Measuring Earnings and Forecasting Earnings, Applied Valuation Techniques.

UNIT III TECHNICAL ANALYSIS 9

Introduction to Technical Analysis: Market Indicators, Types of Charts, Moving Averages. Efficient Market theory: Random Walk, Efficient Market Hypothesis, Empirical tests of semi-strong form

UNIT IV PORTFOLIO CONSTRUCTION AND SELECTION 9

Portfolio analysis: Need and effect of combining securities, Minimum Variance Portfolio, Optimal Risk portfolio. Index Models: single factor and single index models, Treynor-Black and Multifactor Models. Illustration of Portfolio Construction.

UNIT V CAPITAL MARKET THEORY (CMT) AND MANAGED PORTFOLIOS 9

CMT assumptions - Capital Asset Pricing model - Lending and borrowing - CML - SML - Pricing with CAPM - Arbitrage pricing theory– Portfolio Evaluation - Sharpe's index Treynor's index, Jensen's index – Mutual Funds – Portfolio Revision.

TOTAL :45 PERIODS**OUTCOMES:**

At the end of the course the students would be able to

CO1: Understand, Analyse and evaluate investment alternatives.

CO2: Relate, Analyse the industry and evaluate the fundamentals of the company.

CO3: Interpret, apply and estimate the secondary market parameters through technical analysis.

CO4: Compare, build and construct an efficient portfolio

CO5: Understand, apply the CAPM for Portfolios.

CO PO MAPPING

CO	PO							
	1	2	3	4	5	6	7	8
1	3	3				3	2	1
2	3	3			1	3	3	1
3	3	3		1	1	3	3	1
4	3	3	2	1	1	3	3	1
5	3	3	1		1	3	3	1
Avg.	3	3	0.6	0.4	0.8	3	2.8	1

REFERENCES:

1. Donald E.Fischer, Ronald J.Jordan and Pradhan A.K, Security Analysis & Portfolio Management, Pearson, 6th impression, 2023.
2. Prasanna Chandra, Investment analysis and Portfolio Management, McGraw Hill, Sixth edition, 2021.
3. Frank K. Reilly & Keith C. Brown, Investment Analysis and Portfolio Management, Cengage Learning, 9th edition, 2011.
4. S. Kevin, Securities Analysis and Portfolio Management, PHI Learning, 2015.
5. V.A. Avadhani, Securities Analysis and Portfolio Management, Himalaya Publishing House, 2013.
6. Pandian Punithavathy, Securities Analysis and Portfolio Management, 2nd edition, Vikas Publishing, 2013.

BA3005 MERCHANT BANKING AND FINANCIAL SERVICES**L T P C
3 0 0 3****OBJECTIVE:**

To enable a better understanding of the financial structure in India and trends in financial services, merger and acquisition, and portfolio management services

UNIT I INTRODUCTION TO MERCHANT BANKING 9

Merchant Banking: Introduction – An Overview of Indian Financial System – Merchant Banking in India – Recent Developments and Challenges ahead – Institutional Structure – Functions of Merchant Bank - Legal and Regulatory Framework – Relevant Provisions of Companies Act – SERA - SEBI Guidelines - FEMA, etc. – Relation with Stock Exchanges and OTCEI

UNIT II ISSUE MANAGEMENT 9

Issue management: Role of Merchant Banker in Appraisal of Projects, Designing Capital Structure and Instruments – Issue Pricing – Book Building – Preparation of Prospectus – Selection of Bankers – Advertising Consultants etc.- Role of Registrars – Bankers to the Issue, Underwriters, and Brokers – Offer for Sale – Green Shoe Option – E-IPO, Private Placement – Bought out Deals – Placement with FIs, MFs, FIIs, etc. Off-Shore Issues – Issue Marketing – Advertising Strategies – NRI Marketing – Post Issue Activities

UNIT III FEE-BASED FINANCIAL SERVICES 9

Introduction – Need for Financial Services – Financial Services Market in India – NBFC – RBI framework and Act for NBFC. Fee based financial services: Mergers and Acquisitions - Portfolio Management Services – Credit Syndication – Credit Rating – Insurance Act, 1938 – IRDA – Regulations – Products and services

UNIT IV FUND-BASED FINANCIAL SERVICES 9

Fund-based Financial Services: Leasing and Hire Purchasing - Basics of Leasing and Hire Purchasing –Financial Evaluation – Mutual Funds

UNIT V INSURANCE AND OTHER FEE-BASED FINANCIAL SERVICES 9

Other Fund-based Financial Services: Consumer Credit – Credit Cards – Real Estate Financing – Bills Discounting – Factoring and Forfeiting – Venture Capital

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

- CO1:** Understand, compare and describe the financial structure in India and various regulations in the Merchant Banking Domain and recall the rules and regulations governing the Indian securities market
- CO2:** Recall, Identify and discuss the public issue management mechanism, various forms of issues, roles of issue manager, SEBI guidelines and marketing of securities
- CO3:** Understand, distinguish and explain the recent trends in Fee-based financial services, such as merger and acquisition, portfolio management services and credit rating
- CO4:** Recall, categorise and Evaluate on the fund based financial services namely, leasing and hire purchasing
- CO5:** Understand and classify the other fund based financial services such as consumer credit, real estate financing, bill discounting, factoring and venture capital

CO PO MAPPING

CO	PO							
	1	2	3	4	5	6	7	8
1				2		2		
2		2				2		
3		2		2		2		
4		2				2		
5				2		2		
Avg.		1.2		1.2		2		

3-Strong 2-Medium 1-Low

REFERENCES:

1. Khan, M.Y., Financial Services, McGraw Hill Education (India) Private Ltd., 10th Edition, 2019
2. Rama Gopal, C., Management of Financial Services, Vikas Publishing House Pvt. Ltd., 2014
3. Thummuluri Siddaiah, Financial Services, Pearson Education India, First Edition, 2011
4. Nalini Prava Tripathy, Financial Services, PHI Learning, 2011
5. Machiraju, Indian Financial System Vikas Publishing House, 2nd Edition, 2010
6. J.C. Verma, A Manual of Merchant Banking, Bharath Publishing House, New Delhi
7. Varshney, P.N. & Mittal D.K., Indian Financial System, Sultan Chand & Sons, New Delhi
8. Sasidharan, Financial Services and System, Tata McGraw Hill, New Delhi

OBJECTIVE:

To enable students to understand the nuances and the basic operational mechanisms in derivatives

UNIT I INTRODUCTION TO FINANCIAL DERIVATIVES 9

Derivatives – Definition – Types – Forward Contracts – Futures Contracts – Options – Swaps – Differences between Cash and Future Markets – Types of Traders – OTC and Exchange Traded Securities – Types of Settlement – Uses and Advantages of Derivatives – Risks in Derivatives.

UNIT II FORWARD AND FUTURES CONTRACT 9

Forward contracts – Futures contracts – structure of forward & futures markets - Types of Futures Contracts -Margin Requirements – Marking to Market – Hedging using Futures – Securities, Stock Index Futures, Currencies and Commodities – Delivery Options – Relationship between Future Prices, Forward Prices and Spot Prices.

UNIT III OPTIONS 9

Options - Definition – Exchange Traded Options, OTC Options – Specifications of Options – Call and Put Options – organized options trading – listing requirements – contract size – exercise prices – expiration dates – position & exercise limits - American and European Options – Intrinsic Value and Time Value of Options – Option payoff, options on Securities, Stock Indices, Currencies and Futures – Options pricing models – Differences between future and Option contracts.

UNIT IV OPTION PRICING AND SWAPS 9

Principles of Option pricing – Put Call Parity relationship – Option pricing models – The Black Scholes Model – The Binomial model – Principles of forward and future pricing – the cost of carry model

Definition of SWAP – Interest Rate SWAP – Currency SWAP – Role of Financial Intermediary– Warehousing – Valuation of Interest Rate SWAPs and Currency SWAPs - Bonds and FRNs – Credit Risk

UNIT V DERIVATIVES IN INDIA 9

Evolution of Derivatives Market in India – Regulations - framework – Exchange Trading in Derivatives; Commodity Futures – Contract Terminology and Specifications for Stock Options and Index Options in NSE – Contract Terminology and specifications for stock futures and Index futures in NSE – Contract Terminology and Specifications for Interest Rate Derivatives

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

CO1: Understand, classify and explain the fundamentals of Derivatives and its types

CO2: Interpret, classify and evaluate the Forward and Future Contracts

CO3: Understand, categorise and assess the Options

CO4: Recall, apply and evaluate using the various Option Pricing models and Interest Rate and Currency Swaps

CO5: Relate and discuss the derivative markets in India and the indices of various derivative instruments

CO PO MAPPING

CO	PO							
	1	2	3	4	5	6	7	8
1	3	3		2		3	2	1
2	3	3		2		3	2	1
3	3	3		2		3	2	1
4	3	3		2		3	2	1
5	3	3		2		3	2	1
Avg.	3	3		2		3	2	1

3-Strong 2-Medium 1-Low

REFERENCES:

1. Hull, J.C. and Basu, S., Options, Futures and Other Derivatives, Pearson, 10th Edition, 2018
2. Chance, D. and Brooks, R., Derivatives and Risk Management Basics, South Western, 10th edition, 2015
3. S.L. Gupta, Financial Derivatives, Theory, Concepts and Problems, PHI Learning 2nd edition, 2017
4. Patrick Boyle, Jesse McDougall, Trading and Pricing Financial Derivatives, De Gruyter, A Guide to Future, Options and Swaps, 2nd Edition, Publishers, 2018
5. James A. Overdahl, Financial Derivatives, Wiley India Pvt. Ltd, 3rd Edition, 2014
6. Keith Redhead, Financial Derivatives – An Introduction to Futures, Forwards, Options and SWAPs, PHI Learning, 2011.
7. Stulz, Risk Management and Derivatives, Cengage Learning, 2nd Edition, 2011.
8. Varma, Derivatives and Risk Management, 2nd Edition, 2011.

BA3007**FINANCIAL MODELLING****L T P C**
3 0 0 3**OBJECTIVE:**

Enables students to build financial models by including various fields of study viz Financial Management and Corporate, Portfolio and Derivative Finance

**UNIT I INTRODUCTION TO FINANCIAL MODELLING & BUILT-IN FUNCTIONS
USING SPREADSHEETS**

9

Introduction to Financial Modelling - Need for Financial Modelling- Steps for effective financial modelling - Introduction to Time value of money & Lookup array functions: FV, PV, PMT, RATE, NPER, Vlookup, Hlookup, if, countif, etc - Time value of Money Models: EMI with Single & Two Interest rates – Loan amortization modeling - Debenture redemption modeling

UNIT II BOND & EQUITY SHARE VALUATION MODELLING

9

Bond valuation – Yield to Maturity (YTM): Rate method Vs IRR method - Flexi Bond and Strip Bond YTM Modelling - Bond redemption modelling - Equity share valuation: Multiple growth rate valuation modelling with and without growth rates

UNIT III CORPORATE FINANCIAL MODELLING

9

Altman Z Score Bankruptcy Modelling - Indifference point modelling – Financial Break even modelling - Corporate valuation modelling (Two stage growth) - Business Modelling for capital budgeting evaluation: Payback period, NPV, IRR, and MIRR

UNIT IV PORTFOLIO MODELLING 9
 Risk, Beta and Annualised Return – Security Market Line Modelling – Portfolio risk calculation (Equal Proportions) - Portfolio risk optimisation (varying proportions) - Portfolio construction modelling

UNIT V DERIVATIVE MODELLING 9
 Option pay off modelling: Long and Short Call & Put options - Option pricing modeling (B-S Model) - Optimal Hedge Contract modelling

TOTAL: 45 PERIODS

COURSE OUTCOMES:

1. Identify and apply the relevance of financial models for various corporate finance purposes
2. Understand, analyse and evaluate the securities by using the modelling techniques
3. Recall, apply and appraise efficient financial budgets and the equity value of a company by applying various methods
4. Interpret, apply and assess the evaluation of securities through the tools and techniques of portfolio models
5. Understand, analyse and appraise the aptitude of analyzing the investment decision-based on derivatives

CO PO MAPPING

CO	PO							
	1	2	3	4	5	6	7	8
1	3	3				2	2	
2	3	3				2	2	
3	3	3				2	2	
4	3	3				2	2	
5	3	3				2	2	
Avg.	3	3				2	2	

3-Strong 2-Medium 1-Low

REFERENCES:

1. Wayne L Winston, Microsoft Excel 2016-Data Analysis and Business Modelling, PHI publications, (Microsoft Press), New Delhi, 2017.
2. Chandan Sen Gupta, Financial Analysis and Modelling – Using Excel and VBA, Wiley Publishing House, 2014
3. Craig W Holden, Excel Modelling in Investments, Pearson Prentice Hall, Pearson Inc., New Jersey, 5th Edition, 2015
4. Ruzhbeh J Bodanwala, Financial Management using Excel Spreadsheet, Taxman Allied Services Pvt Ltd, New Delhi, 3rd Edition, 2015.
5. Simon Benninga (2014), Financial Modeling, The MIT Press Cambridge, Massachusetts, Fourth Edition
6. Michael Rees (2018), Principles of Financial Modelling: Model Design and Best Practices Using Excel and VBA (The Wiley Finance Series), 1st Edition, Wiley
7. Shmuel Oluwa (2019), Hands - On Financial Modeling with Microsoft Excel 2019: Build practical models for forecasting, valuation, trading, and growth analysis using Excel 2019, 1st Edition, Packt Publishing Limited
8. Danielle Stein Fairhurst (2017), Financial Modeling in Excel for Dummies, 1st Edition, Wiley

OBJECTIVE:

To provide a broad introduction to the emerging technologies, namely Artificial Intelligence and Machine Learning and their applications in the field of finance

UNIT I OVERVIEW OF AI AND ML 9

Overview of AI & ML, Types of ML, the future of AI in finance, Data Banks and digital world war. AI advantages, near term work force opportunities and challenges Deposits and Lending: AI in lending, future of deposits and lending, Power of AI to transform the global SME credit landscape, AI for credit assessment in underserved segments, Market micro structure and liquidity: Order - driven and Quote driven markets.

UNIT II AI AND ML APPLICATIONS 9

Introduction to R programming, Market micro structure and liquidity: order driven vs quote driven markets, AI, ML and big data in financial services, benefits and impact of AI/ML on business models of financial sector, AI applications in financial market activities. Insurance: Using AI in commercial underwriting to drive productivity growth, digitally enabled Underwriter, improving Policy life cycle management with AI and Data Science.

UNIT III AI AND ML IN PAYMENTS 9

Payments: AI - Next leap forward in the payments revolution, Big Data, AI and ML methods to unlock their potential in the new payment environment. Investment and wealth management: the true value of AI to transform push / pull wealth management. The Impact of AI on ESG investing. Implication for the investment value chain. AI in Indian investment and asset management: Global perspective.

UNIT IV AI AND ML IN CAPITAL MARKETS 9

Capital Markets: AI approaches in Capital market, AI, ML and the financial services industry. Alternative Data and metaquants: making the most of AI for visionaries in capital market. Trust in FT and AI, building trust through sound governance. AI and business ethics in financial markets, transforming Black Box AI in the financial sector. Explainable AI that is intuitive and perspective, 3 factor Fama and French model

UNIT V REGULATION OF AI 9

Regulation of AI within the financial services sector, changing face of regulatory compliance and audit. Robocop on Wall Street, technology for regulations and compliance. Future of AI in Finance: An AI embedded finance future, open banking, BC and AI. Automated ML and Federated learning, deep learning and financial regulation. AI trends will shape winning businesses, Governance of AI systems and accountability, AI for ESG investing.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

CO1: Understand the concepts of AI and ML and describe its significance in financial services.

CO2: Recall and appraise the role of AI and ML in the financial sector.

CO3: Understand and explain the application of AI and ML in the payments sector.

CO4: Understand and explain the application of AI and ML in the capital markets

CO6: Interpret and explain the regulation of AI

CO PO MAPPING

CO	PO							
	1	2	3	4	5	6	7	8
1	2	2			2	2	2	1
2	2	2			2	3	3	1
3	2	2			2	3	3	1
4	2	2			2	3	3	1
5	2	2			2	3	3	1
Avg.	2	2			2	2.8	2.8	1

3-Strong 2-Medium 1-Low

REFERENCES:

1. Ivana Bartoletti, Susanne Chishti, Anne Leslie and Shan Millie, The AI Book – The AI handbook for investors, Entrepreneurs and FinTech Visionaries, Wiley Publications.
2. M. Dixon, I Halperin , P Bilokon, Machine Learning in Finance, Springer, I edition
3. Marcos Lopez, Advances in Financial Machine Learning, Wiley, 1st Edition

BA3009 FINTECH AND BLOCKCHAIN APPLICATIONS IN FINANCE

L T P C
3 0 0 3

OBJECTIVE:

To provide a broad introduction to the field of FinTech and Blockchain and its application in the field of Finance

UNIT I FINTECH INDUSTRY AND BANKING TECHNOLOGIES

9

FinTech industry, Global Fintech instruments, Fintech unicorns and startups, new operating models for banking, banking as a service and open Application Programming Interface (API), Challenger banks, Neo banks, commercial transformation, Impact of FinTech on banking, digital technology on the banking sector – UPI, CBS, Mobile banking, India Stack, etc.

UNIT II PAYMENT, DIGITAL LENDING AND INSUR TECH

9

Payments and remittances innovation, social media remittances, Nano payments, Digital Lending, P2P lending, Crowdfunding, Crowd Investing, digital lending for MSMEs, digital mortgages, point of sale evolution, mPOS, mobile wallets, smart credit cards, New Generation Commerce, T-commerce, FinTech and Global Economy. InsurTech, P2P insurance, IoT and Wearable technology in insurance – Cloud computing in insurance – Using Predictive analytics in insurance

UNIT III WEALTHTECH

9

WealthTech - Innovative wealth management, Social investing - Robo Advisory Services – Robotic Process Automation (RPA) – Algo Trading - Big Data in financial services, Hyper personalization using big data - Cyber security, unique identification system in India, RegTech and SupTech, Internet of Things (IOT) - IOT in Financial services, New age personal finance management

UNIT IV INTRODUCTION TO BLOCKCHAIN

9

Blockchain, components of blockchain, public and private keys, Byzantine General Problem, Proof of concept, Blockchain Architecture, Key blockchain characteristics, Types of blockchain, blockchain applications, compliance, clearing, and settlements, blockchain distributed ledgers - Impact and Applications of Blockchain in financial services

UNIT V BLOCKCHAIN AND DIGITAL CURRENCIES

9

Blockchain and new age financial opportunities, Cryptocurrencies, Cryptocurrency Wallets - Risks and Costs associated with crypto market investment - Central Bank Digital Currency, Initial Crypto token offerings - Bitcoins- Altcoins - Open Banking Use of Quantum Computing in Finance - Decentralised Finance (DeFi) - FinTech as a Service – Future of Fintech

TOTAL: 45 PERIODS

UNIT III MANAGEMENT OF FOREIGN EXCHANGE 9

Management of foreign exchange exposure and risk: Types of Exposure, Foreign Currency Exposure, Economic Exposure, Operations exposure, Interest rate exposure. Theories - Purchase Power Parity - Interest Rate Parity – International Fisher Effect

UNIT IV CROSS BORDER INVESTMENT DECISIONS 9

Cross-border investment decisions: Capital budgeting, Approaches to Project Evaluation, Risk in Cross-border Investment Decisions, Corporate Risk in Investment Decisions. Financing Decisions of MNCs

UNIT V MULTINATIONAL FINANCIAL INSTITUTIONS 9

Multinational financing institutions and contemporary issues: The International Bank for Reconstruction and Development, the International Development Association, The International Finance Corporation, International monetary fund, Export and Import financing

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

1. Understand and explain the concept of International Finance
2. Recall and describe the functions of Foreign Exchange Market
3. Interpret, apply and estimate the management of foreign exchange exposure and risk involved in it
4. Understand, analyse and evaluate the cross-border investment decisions
5. Recall and analyse multinational financing institutions and contemporary issues

CO PO MAPPING

CO	PO							
	1	2	3	4	5	6	7	8
1		2						1
2		2				2	2	1
3		2				2	2	1
4		2					2	1
5		2				2	2	1
Avg.		2				1.2	1.6	1

3-Strong 2-Medium 1-Low**REFERENCES:**

1. Madura, J., International financial management. Cengage Learning, 2020
2. Apte, P. G., & Kapshe, S., International Financial Management, McGraw-Hill Education, 2020
3. Eun, C. S., & Resnick, B. G., International Financial Management, Tata McGraw-Hill Education, 4 Edition, 2010
4. V. A Avadhani, International Financial Management, Second Edition, HPH, 2011
5. Eiteman & Stonchill, "Multinational Business Finance", 12th Edition, Pearson, 2010
6. V.K. Bhalla. "International Financial Management for the Multinational Firm", 4th Edition, S Chand, 2014
7. Alan C. Shapiro, Multinational Financial Management, PHI Learning, 5th Edition, 2010.

BA3011**CAPITAL AND FINANCIAL MARKETS****L T P C****3 0 0 3****OBJECTIVE:**

- To understand the types and functions of the various financial markets, its instruments, and regulations.

UNIT I FINANCIAL MARKETS IN INDIA 9

Indian financial system and markets – Structure of financial markets in India – Types - Participants in Financial Market – Regulatory Environment - RBI, CCIL, Common securities market, Money market - Capital market - Governments philosophy and financial market – financial instruments

UNIT II INDIAN CAPITAL MARKET- PRIMARY MARKET 9

Primary Market - Primary market system - Types of scripts - Issue of capital: process, regulation, and pricing of issue, – Methods of floating new issues, Book building - Primary market intermediaries: commercial banks, development banks, Merchant bankers, issue managers, rating agencies, etc. – Role of primary market – Regulation of primary market. Blockchain Technology in Capital Markets

UNIT III SECONDARY MARKET 9

Stock exchanges in India - History and development - Listing - Depositories - Stock exchange mechanism: Trading, Settlement, risk management, Basics of pricing mechanism - Players and stock exchange - Regulations of stock exchanges – Role of SEBI – BSE, OTCEI, NSE, ISE - Role of FII, MFs, and investment bankers – Stock market indices – calculation.

UNIT IV DEBT MARKET AND FOREX MARKET 9

Bond markets in India: Government bond market and its interface with capital market - Components of bond market - G-Sec, T-Bills, Corporate Bonds, Yield conventions, Role of Primary Dealers, Auction Markets - Pricing of Bonds; Money Market
Introduction to Forex Markets, basics in exchange rates theory - Forex risk exposures and basics of corporate forex risk management.

UNIT V MUTUAL FUNDS, DERIVATIVES MARKETS AND PRIVATE EQUITY 9

Mutual funds institutions in India, Types of mutual funds, Basics in portfolio management, Metrics of performance for fund manager.
Introduction to Derivatives and the size of derivatives markets - Brief introduction to Forwards, Options, Futures and Swaps.
Venture capital and Private equity - Role of VCs and PEs in financial markets.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

1. Remember and explain the basic concepts of the financial markets in India
2. Recall and describe the instruments, participants, and trading in debt market and forex markets
3. Understand, apply and explain the methods of issuing shares and the role of intermediaries in the primary market
4. Interpret and examine the trading mechanism in the stock market
5. Understand and Appraise the role of mutual fund, derivatives markets and private equity

REFERENCES:

1. M.Y Khan, Indian Financial System, Tata McGraw Hill, 6th Edition, 2011
2. Christopher Viney and Peter Phillips, Financial Institutions, Instruments and Markets (2015), 8th Edition, McGraw Hill.
3. Pathak, Bharati V., Indian Financial System: Markets, Institutions and Services, Pearson education (Singapore), New Delhi, Fourth edition, 2014.
4. Saunders, Anthonu and Cornett, Marcia Millon, Financial Markets and Institutions: An Introduction to the risk management approach, McGraw Hill, Irwin, New York, 3rd Edition, 2017.
5. Bhole, L.M, Financial Institutions and Markets: Structure, Growth and Innovations, McGrawHill, New Delhi, Sixth edition, 2017.
6. Fabozzi, Frank J. and Modigliani, Franco, Capital Markets: Institutions and Markets, Prentice Hall of India, New Delhi, Fourth Edition, 2009.

CO PO MAPPING

CO	PO							
	1	2	3	4	5	6	7	8
1	2	2				2	2	1
2	2	2				2	2	1
3	1	1				2	2	1
4	2	2				2	2	1
5	2	2				2	3	1
Avg.	1.4	1.8				2	2.8	1

3-Strong 2-Medium 1-Low

BA3012 CONSUMER BEHAVIOUR AND NEURAL MARKETING

**L T P C
3 0 0 3**

OBJECTIVE:

- To study and understand the consumer' behavior in-order to effectively utilise the market' potential.

UNIT I INTRODUCTION 9

Understanding Consumer behaviour - Consumption, Consumer orientation-Approaches to consumer behaviour research- Interpretive and Quantitative approaches - Effects of Technology, Demographics and Economy on Consumer behaviour.

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

UNIT IV CONSUMER BEHAVIOR MODELS 9

Traditional and Contemporary Consumer behaviour model for Individual and industrial buying behaviour and decision making- Consumer decision making process- Diffusion of Innovation

UNIT V CONSUMER NEUROSCIENCE 9

Introduction to the application of neuroscience to consumer research. Nature of Neuro Marketing, Neuromarketing Versus Traditional Methods-key Benefits and Issues, Mapping the Brain. Attention and Consciousness, Eye Tracking, Senses and Perception, Sensory Neuro Marketing.

TOTAL: 45 PERIODS

Course Outcomes:

The students will be able to

- Understand, apply and analyse the approaches to consumer behaviour research
- Relate and interpret the internal factors that influences consumers
- Assess the effects of external factors influences on consumer behaviour
- Understand, apply and analyse the models of consumer and industrial buying and decision making
- Understand, design and interpret applications of neuromarketing research

COURSE OUTCOMES

CO1: Possess knowledge and good understanding on the fundamentals of advertising

CO2: understanding and knowledge on advertising An

CO3: Discover on advertising agencies and its operations.

CO4: Understand sales promotion campaigns.

CO5: Evaluate the relevance of Advertisement and Sales promotion.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	2	3	2	2	2	3	3	3
CO 2	2	3	2	3	3	2	2	3
CO 3	3	3	1	1	3	2	3	3
CO 4	3	3	1	1	1	1	3	3
CO 5	3	3	1	3	1	1	3	3

Reading List

1. S A Chunawalla, Advertising Management and Sales Promotion, Himalaya Publishing, 2015
2. VvRathna & S L Guptha, Advertising and Sales Promotion Management, Sultan Chand, 2011
3. S H H Kazmi & Satish Batra, Advertising and Sales Promotion Management, Excel Books, 2008
4. Mishra M N, Sales Promotion and Advertising Management, Mishra M N, Himalaya Publishing 2015

REFERENCES

1. Advertising and Promotion: An Integrated Marketing Communications Perspective (SIE) by George E Belch, Michael A Belch, Keyoor Purani, 12th edition, McGraw Hill Education, 2021.
2. Advertising, Promotion, and other aspects of Integrated Marketing Communications (Mindtap Course List) by Terence Shimp and J. Craig Andrews, South-Western College Publishing, 2017.
3. Percy, L. and Rosenbaum-Elliot, R., Strategic Advertising Management, 4th Edition, Oxford University Press, 2012.
4. Shrimp, T.A., Integrated Marketing Communications in Advertising and Promotion, 8th Edition, Cengage Learning India, 2012.
5. Belch, G.E., Belch, M. and Purani, K., Advertising and Promotion, 7th Edition, Tata McGraw-Hill Education, 2009.
6. Marshall, P., Ultimate Guide to Facebook Advertising, Tata McGraw-Hill Education, 2011.

BA3014

BRAND MANAGEMENT

L T P C
3 0 0 3

OBJECTIVE :

- To understand the fundamental differences between services and goods and to provide insight into ways to improve service quality and productivity in various service sectors.

UNIT - I INTRODUCTION TO BRANDING

9

Definition of Brand - Importance of Brands – Branding Challenges and Opportunities – Brand Equity Concept – Brand Equity Models – Kepler Brand Identity Model - Brands vs. Products Constituents of a Brand: Brand Elements – Brand Identity - Image and Personality – Brand DNA, Kernel, Codes and Promises – Point of Distribution and Point of Purchase

UNIT - II BRAND POSITIONING**9**

Basic Concepts – Risks – Brands and Consumers – Competitive Advantage through Strategic Positioning of Brands – Points of Parity –Points of Difference –Brand Building: Designing Marketing Programmes to Build Brands – Role of Social Media in Brand Building – Managing and Sustaining Brands Long-Term.

UNIT - III BRAND IMAGE**9**

Image Dimensions, Brand Associations & Image, Brand Identity; Perspectives, Levels and Prisms. Managing Brand Image – Stages – Functional, Symbolic and Experiential Brands – Brand Audits – Brand Loyalty – Cult Brands

UNIT - IV BRAND VALUATION**9**

Methods of Valuation – Implications for Buying & Selling Brands. Leveraging Brands: Brand Extension – Brand Licensing – Co-branding – Brand Architecture and Portfolio Management

UNIT - V BRANDING IN PRACTICE**9**

Handling Name Changes and Brand Transfer – Brand Revitalisation and Rejuvenation – Global Branding Strategies – Building and Managing Brands Across Boundaries – Branding Industrial Products, Services and Retailers – Building Brands Online – Indianisation of Foreign Brands and Taking Indian Brands Global

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

1. To understand the core concepts and key elements of Branding that helps to build brand equity and brand image of the products.
2. To create competitive advantage through strategic positioning of brands and designing brand building programs.
3. To examine the elements that create brand identity for the products and enhancing the brand image and brand loyalty among the buyers.
4. To analyze brand leveraging value of the product by applying relevant brand valuation methods .
5. To adapt global brand strategies by having better understanding towards industrial, retailer brands and thereby promoting brands at global level.

CO PO MAPPING

CO	PO							
	1	2	3	4	5	6	7	8
1	3	3	1	2	1	3	3	2
2	3	3	2	2	1	3	3	3
3	3	3	2	1	1	3	3	3
4	3	3	1	1	-	3	2	2
5	3	3	2	1	1	2	2	3
Avg.	3	3	1.6	1.4	0.8	2.8	2.6	2.6

READING LIST

1. Kevin Lane Keller, Mats Georgson, & Tony Aperia, Strategic Brand Management, Kindle 2nd Edition, 2013
2. Brand Management, Palgrave Mcmillan, 2021
3. Journal of brand management, Palgrave Macmillan
4. Journal of Product & brand Management, Emerald Publishing

REFERENCE BOOKS

1. Keller, K.L., Strategic Brand Management, 3rd Edition, Pearson, 2011
2. Chevalier, M. and Mazzalovo, G., Luxury Brand Management: A World of Privilege, 2nd Edition, John Wiley and Sons, 2012
3. Aaker, D., Building Strong Brands, Simon & Schuster, 2010.
4. Dutta, K., Brand Management: Principles and Practices, Oxford University Press, 2012.
5. Kapferer, J.N., The New Strategic Brand Management: Advanced Insights and Strategic Thinking, 5th Edition, Kogan Page, 2012

BA3015

SERVICES MARKETING

L T P C
3 0 0 3

OBJECTIVE

- To understand the fundamental differences between services and goods and to provide insight into ways to improve service quality and productivity in various service sectors.

UNIT - I INTRODUCTION TO SERVICES MARKETING 9

Marketing Services: Introduction - Growth of the service sector - The Concept of Service - Nature & Characteristics of Service , Service and Goods Difference, – Classification of Service- Understanding service consumers- Three stage model of service consumption, Service encounter stage, Service Marketing Mix - 7 P's of Marketing, Service Marketing triangle.

UNIT - II SERVICE PRODUCTS , POSITIONING , DISTRIBUTION OF SERVICES 9

Service products , Flower of service , New service development - Hierarchy of new service category, Positioning of services, Customer driven strategy, Segmenting and Targeting Service Markets, Positioning maps, Distribution of services, Location considerations, Delivery of service, Challenges of distribution.

UNIT - III DEMAND AND CAPACITY MANAGEMENT, SERVICE ENVIRONMENT, SERVICE PRICING 9

Productive Service Capacity, Demand Fluctuations, Managing Demand and Capacity, Patterns of Demand, Managing Waiting Lines, Service Environment, Purpose of Service environment, Consumer Response, Dimensions, Pricing of services- Pricing strategy, Revenue Management, Ethical concerns in pricing, Putting service pricing into practice, Pricing, Strategies And Tactics.

UNIT – IV MANAGEMENT OF SERVICE QUALITY AND SERVICE PROCESS 9

Service quality- Causes Of Service – Quality Gaps, Gap model in service design, Measuring service quality, Measuring productivity, Improving service productivity, Designing service processes - Service Blueprinting, service process redesign, Customer participation in service process.

UNIT - V SERVICE STRATEGY IN VARIOUS SECTORS 9

Marketing of Service - Financial Services – Health Service - Hospitality Services including travel, hotels and tourism - Professional Service - Public Utility Services - Educational Services.

TOTAL: 45 PERIODS

COURSE OUTCOMES

1. To understand the similarities and differences in service-based and physical product based marketing activities.
2. To demonstrate a positioning of services to identify a competitive position in the market for service differentiation.
3. To manage and utilize service capacity for improving productivity of services and to analyze the influence of service environment on customer satisfaction.
4. To apply pricing strategy for different services and to examine various ethical concerns in pricing of services.
5. To assess the causes of service quality gap and to improve service productivity through service blueprinting.

CO PO MAPPING

CO	PO							
	1	2	3	4	5	6	7	8
1	2	3	1	-	-	2	2	3
2	3	3	1	1	-	3	3	2
3	3	3	2	1	1	3	3	2
4	3	3	2	-	1	3	3	3
5	3	3	3	3	3	3	3	2
Avg.	3	3	1.8	1	1	2.8	2.8	2.4

READING LIST

1. R. Srinivasan, Services Marketing: The Indian Context 4th Edition, PHI, Edition, 2014
2. Jayantha Chatterjee Christopher Lovelock, Pearson, 2017, Kindle
3. Journal of services marketing, Emerald Insight
4. Journal of service management, Emerald Group Publishing Ltd

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2. Zeithaml, V., Bitner, M.J., Gremler, D. and Pandit, A., Services Marketing, 5th Edition, Tata McGraw-Hill, 2017
3. Gronoos, C., Service Management and Marketing: Customer Management in Service Competition, 3rd Edition, Wiley India, 2011
4. Bateman, J.E. and Hoffman, D., Services Marketing, 4th Edition, Cengage Learning, 2011.
5. Srinivasan, R., Services Marketing: Indian Context, PHI Learning, 2012.

BA3016

CUSTOMER RELATIONS MANAGEMENT

**L T P C
3 0 0 3**

OBJECTIVE:

- To study and understand the customer relationship management concepts and marketing strategy

UNIT I INTRODUCTION

9

CRM-Definition, Emergence of CRM Practice, Factors responsible for CRM growth, CRM process, framework of CRM, Benefits of CRM, Types of CRM, Scope of CRM, Customer Profitability, Features Trends in CRM, CRM and Cost Benefit Analysis, CRM and Relationship Marketing.

UNIT II CRM CONCEPTS 9

Customer Value, Customer Expectation, Customer Satisfaction, Customer Centricity, Customer Acquisition, Customer Retention, Customer Loyalty, Customer Lifetime Value. Customer Experience Management, Customer Profitability, Enterprise Marketing Management, Customer Satisfaction Measurements, Web based Customer Support.

UNIT III PLANNING FOR CRM 9

Steps in Planning-Building Customer Centricity, Setting CRM Objectives, Defining Data Requirements, Planning Desired Outputs, Relevant issues while planning the Outputs, Elements of CRM plan, CRM Strategy: The Strategy Development Process, Customer Strategy Grid.

UNIT IV CRM AND MARKETING STRATEGY 9

CRM Marketing Initiatives, Sales Force Automation, Campaign Management, Call Centers. Practice of CRM: CRM in Consumer Markets, CRM in Services Sector, CRM in Mass Markets, CRM in Manufacturing Sector

UNIT V CRM PLANNING AND IMPLEMENTATION 9

Issues and Problems in implementing CRM, Information Technology tools in CRM, Challenges of CRM Implementation. CRM Implementation Roadmap, Road Map (RM) Performance: Measuring CRM performance, CRM Metrics

TOTAL: 45 PERIODS

OUTCOMES:

On completion of the course, students will be able to

CO1: To familiarize the students to the basic and evolution of CRM

CO2: To provide insights on CRM Concepts

CO3: To throw light on CRM and strategy its development in an organization

CO4: To elucidate on CRM and Marketing Strategy

CO5: To create awareness and importance of CRM Planning and Implementation

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1				2	3	2		
CO 2		3	2					
CO 3					2	3		3
CO 4	2				3			
CO 5			3			2	2	

REFERENCES :

1. Kincaid, J., Customer Relationship Management: Getting it right, Pearson, 2005.
2. Makkar, U. and Makkar, H.K., Customer Relationship Management, Tata McGraw-Hill Education, 2011.
3. Kumar, V. and Reinartz, W.J., Customer Relationship Management: A Databased Approach, Wiley India Pvt. Ltd., 2006.
4. Max Fatouretchi, The Art of CRM: Proven strategies for modern customer, 2019.
5. Peelen, E., Customer Relationship Management, Pearson, 2008.
6. Shanmugasundaram, S., Customer Relationship Management: Modern Trends and Perspectives, PHI Learning Pvt. Ltd., 2008.Education, 2010.
7. Kincaid, J., Customer Relationship Management: Getting it right, Pearson, 2005.

OBJECTIVE:

- Design a comprehensive retail marketing plan for a specific retail business.

UNIT I INTRODUCTION 9

An overview of Global Retailing – Challenges and opportunities – Retail trends in India – Socio economic and technological Influences on retail management – Government of India policy implications on retails.

UNIT II RETAIL FORMATS 9

Organized and unorganized formats – Different organized retail formats – Characteristics of each format – Emerging trends in retail formats – MNC's role in organized retail formats.

UNIT III RETAILING DECISIONS 9

Choice of retail locations - internal and external atmospherics – Positioning of retail shops – Building retail store Image - Retail service quality management – Retail Supply Chain Management – Retail Pricing Decisions. Merchandizing and category management – buying.

UNIT IV RETAIL SHOP MANAGEMENT 9

Visual Merchandise Management – Space Management – Retail Inventory Management – Retail accounting and audits - Retail store brands – Retail advertising and promotions – Retail Management Information Systems - Online retail – Emerging trends .

UNIT V RETAIL SHOPPER BEHAVIOUR 9

Understanding of Retail shopper behavior – Shopper Profile Analysis – Shopping Decision Process - Factors influencing retail shopper behavior – Complaints Management - Retail sales force Management – Challenges in Retailing in India.

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

CO1: Recall the key concepts and principles of retail marketing.

CO2: Demonstrate the fundamental principles and strategies of retail marketing.

CO3: Experiment retail marketing techniques to develop effective product displays and visual merchandising.

CO4: Analyze retail shopper behavior in the context of retail marketing.

CO5: Evaluate the effectiveness of retail marketing strategies and campaigns.

CO6: Design a comprehensive retail marketing plan for a specific retail business.

CO PO MAPPING

CO	PO							
	1	2	3	4	5	6	7	8
1	3	2	2	2	2	1	1	1
2	2	2	3	3	2	1	2	1
3	3	2	2	2	2	2	3	2
4	2	3	2	3	3	1	1	2
5	2	2	1	2	2	2	2	3
6	2	2	3	2	2	1	2	1
Avg.	2.33	2.17	2.17	2.33	2.17	1.33	1.83	1.67

REFERENCES :

1. Levy, Michael, Weitz, Barton A., and Pandit Ajay (2015). Retail Management, Tata McGraw-Hill, 8th Edition, New Delhi.
2. Ogden, Integrated Retail Management, Biztantra, India, 2008.
3. Patrick M. Dunne and Robert F Lusch, Retailing, Thomson Learning, 4th Edition 2008.
4. Chetan Bajaj, Rajnish Tow and Nidhi V. Srivatsava, Retail Management, Oxford University Press, 2007.
5. Swapna Pradhan, Retail Management -Text and Cases, Tata McGraw Hill, 3rd Edition, 2009.
6. Dunne, Retailing, Cengage Learning, 2nd Edition, 2008
7. Ramkrishnan and Y.R.Srinivasan, Indian Retailing Text and Cases, Oxford University Press, 2008

BA3018

DIGITAL MARKETING

L T P C

3 0 0 3

OBJECTIVE:

- To understand Digital Marketing Space and acquire knowledge in digital Marketing Strategy

UNIT I DIGITAL MARKETING STRATEGY

9

Digital vs. Traditional marketing- Online marketing space - Significance of digital marketing - Online marketing mix - E-products - STP - E-price - E-Promotion - Affiliate marketing - Online tools for Content Marketing – Market influence analytics in Digital Eco System.

UNIT II SEO

9

Keyword strategy – SEO strategy – SEO success factors – On page and Off page techniques - Search Engine Marketing (SEM) – Working of Search Engine – SEM Components - PPC advertising –Display Advertisement

UNIT III EMAIL AND MOBILE MARKETING

9

Email and Mobile Marketing E- Mail Marketing - Types of E- Mail Marketing -Email Automation -Lead Generation -Integrating Email with Social Media and Mobile- Measuring and maximising email campaign effectiveness. Mobile Marketing-Mobile Inventory/channels- Location based; Context based; Coupons and offers, Mobile Apps, Mobile Commerce, SMS Campaigns-Profiling and targeting

UNIT IV SOCIAL MEDIA MARKETING

9

Social Media Channels - Social Media Strategy - Web PR and Online reputation management - Adwords - PPC Advertising - Video SEO - Conversion Optimization Monitoring - trends analysis – dashboards - segmentation - Navigation analysis (funnel reports, heat maps, etc.).

UNIT V SEARCH AND WEB ANALYTICS

9

Repatriation-issues-best practices; Sustainable practices through Ethics and CSR; Green HRD; Ethical Issues-dispute settlement-International labour contract.Knowledge Management-Transfer; Changing and Future Trends: International labour standards, Managing Remote Work -issues-digital privacy and decent work. Search analytics Current trends & challenges - web analytics & Web 2.0, multi-channel marketing management, web mining & predictive analytics - Understanding the key fabric of the Web - Sources of data: clickstream data, online surveys, usability research - Clickstream data collection techniques - web server log analysis - page tagging - Web metrics and Key Performance Indicators (KPIs): simple views, visitor counts, measuring content, engagement, conversions, etc. Framework for mapping business needs to web analytics tasks - Data collection architecture- Introduction to OLAP, Web data exploration and reporting - Introduction to Splunk.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

On completion of the course, students will be able to

- CO1:** To examine and explore the role and importance of digital marketing in today's rapidly changing business environment.
- CO2:** To focusses on how SEO an be utilised by organisations and how its effectiveness can measured.
- CO3:** To know the key elements of a digital marketing strategy in email and mobile
- CO4:** To analyse how the effectiveness of social media marketing and how it can be measured
- CO5:** To demonstrate advanced practical skills in common digital marketing tools such as SEO, SEM, Social media and Blogs.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3	2	2	2	2	2	2
CO 2	3	3	2	2	2	2	3	3
CO 3	3	3	2	1	1	1	1	3
CO 4	2	3	2	1	1	1	2	3
CO 5	3	2	1	1	1	1	3	3

READING LIST:

1. M Bala, D Verma - ... (2018). A Critical Review of Digital Marketing ..., 2018 - papers.ssrn.com
2. Digital marketing: global strategies from the world's leading experts
YJ Wind, V Mahajan - 2002 - books.google.com
3. Digital marketing: A practical approach A Charlesworth - 2014
taylorfrancis.com
4. Modern trends in the development of digital marketing
NI Arkhipova, MT Gurieva - RSUH/RGGU Bulletin. Series ..., 2018 - ideas.repec.org

REFERENCES :

1. Rob Stokes, (2014), e-marketing: The Essential Guide to Digital Marketing, 5th edition, Quirk Education.
2. Dave Chaffey, Fiona Ellis-Chadwick, Richard Mayer, Kevin Johnston, (2012), Internet Marketing: Strategy, Implementation and Practice, Prentice Hall. Liana Evans, (2010), Social Media Marketing: Strategies for Engaging in Facebook, Twitter & Other Social Media, Que Publishing.
3. Vandana Ahuja, (2015), Digital Marketing, 1st edition, Oxford University Press.
4. Avinash Kaushik, (2009), Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity.
5. Rob Stokes, (2014), e-marketing: The Essential Guide to Digital Marketing, 5th edition, Quirk Education.

BA3019

MARKETING ANALYTICS

L T P C
3 0 0 3

OBJECTIVES:

- To familiarize the students to the basic concepts of Marketing analytics.

UNIT I **MARKETING ANALYTICS FRAMEWORK**

9

Introduction to Marketing Analytics and Models. Market Insight - Market Data Source – treatment of outliers, Market sizing, PESTLE Market analysis, Porter Five Force Analysis Market segment identification, targeting and positioning - Tools and Techniques: Regression, Cluster Analysis, and Perceptual Mapping Techniques.

UNIT II BUSINESS STRATEGY AND OPERATIONS 9
 Analytics based strategy selection with strategic models - Strategic Scenarios, Strategic Decision Models, and Strategic Metrics.
 Business Operations: Forecasting - Predictive Analytics - Data Mining - Balanced Scorecard - Critical Success Factors.

UNIT III PRODUCT AND PRICE ANALYTICS 9
 Product analytics: Conjoint Analysis model - Decision Tree Model - Portfolio Resource Allocation - Product/ service Metrics, Attribute Preference testing.
 Price Analytics: Pricing Techniques - Pricing Assessment - Profitable pricing - Pricing for Business Markets - Price Discrimination.

UNIT IV DISTRIBUTION AND PROMOTIONS ANALYTICS 9
 Distribution Analytics: Distribution Channel Characteristics - Retail Location selection, Channel Evaluation and Selection - Multi-channel Distribution.
 Promotion Analytics: Promotion Budget estimation - Promotion Budget Allocation – Ad value equivalence model - Promotion Metrics for traditional Media - Promotion Metrics for social media.

UNIT V SALES ANALYTICS 9
 E commerce sales model, sales metrics, profitability metrics and support metrics - Rapid decision models - data driven presentations - contemporary issues and opportunities in application of marketing analytics in different sectors.

TOTAL: 45 PERIODS

OUTCOMES:

On completion of the course, students will be able to

- CO1:** Understand the basic concepts of marketing analytics.
- CO2:** Analyse and Implement Business Strategies.
- CO3:** Use differential Product and Price analytics.
- CO4:** Compare and employ on distribution analytics.
- CO5:** Use appropriate sales analytics.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3		2				3	
CO 2	3	3					3	3
CO 3	2		3					3
CO 4		3			2		3	
CO 5	3		3					3

READING LIST:

1. Marketing analytics: Methods, practice, implementation, and links to other fields
 SL France, S Ghose - Expert Systems with Applications, 2019 - Elsevier
2. Marketing analytics for customer engagement: a viewpoint
3. S Nagaraj - International Journal of Information Systems and Social ..., 2020 - igi-global.com
4. Journal of Marketing Analytics - Palgrave Macmillan
5. Applied Marketing Analytics | Henry Stewart Publications

REFERENCES :

1. Stephen Sorger, (2013), MARKETING ANALYTICS, Strategic Models and Metrics, First Edition, Admiral Press.
2. Gary L. Lilien and Arvind Rangaswamy (2014), Marketing Engineering: Computer Assisted Marketing Analysis and Planning, 2nd edition, Trafford Publishing UK.
3. Wayne L. Winston (2014), Marketing Analytics: Data-Driven Techniques with Microsoft Excel, First Edition, Wiley, Indianapolis.
4. Paul W. Farris, Neil T. Bendle, Phillip E. Pfeifer, David J. Reibstein (2010),

Marketing Metrics, 2nd Edition, Pearson USA.

5. Mike Grigsby (2018), Marketing Analytics: A Practical Guide to Improving Consumer Insights Using Data Techniques, 2nd Edition, NY: Kogan Page Limited, New York.
6. RajkumarVenkatesan, Paul W. Farris, Ronald T. Wilcox, Marketing Analytics Essential Tools for Data-Driven Decisions, University of Virginia Press, 1st Edition, 2021.

BA3020 INDUSTRIAL AND LABOUR RELATIONS

L T P C
3 0 0 3

OBJECTIVE:

- To acquaint the learners with the practices of industrial and labour relations for maintaining industrial peace and harmony in the perspective of governments ,employeers and -employees well being leading industrial growth.

UNIT I INDUSTRIAL RELATIONS 9

Concept, scope- objectives- Importance - Approaches to IR- Industrial relations system in India. Trade Unions Act,1926- trade union movement in India- objective -role - functions- procedure for registration of trade unions- Rights and responsibilities- problems- Employee relations in IT sector.

UNIT II LABOUR RELATIONS 9

The Industrial Disputes Act, 1947-Disputes – Impact – Causes – Strikes – Prevention – Industrial Peace – Government Machinery – Conciliation – Arbitration – Adjudication. Labour welfare- statutory-Voluntary- welfare funds-welfare of unorganized labour.

UNIT III LABOUR LEGISLATIONS-I 9

Origin and growth of labor legislation in India- Principles of labour legislations-Factories Act 1948- Minimum Wages Act, 1948- Payment of Wages Act, 1936- Payment of Bonus Act, 1965

UNIT IV LABOUR LEGISLATIONS-II 9

The Industrial employment (standing orders) Act, 1946- The Apprentices act, 1961-The Equal Remuneration act, 1976- Payment of Gratuity act 1972- Employee compensation act in 2013.

UNIT V LABOUR LEGISLATIONS-III 9

Employees' Provident fund and Miscellaneous provisions act, 1952- Employees' state insurance (ESI) Act, 1948- Maternity Benefit Act, 1961- Contract Labour Regulations and Abolition Act, 1970 -The Child Labour Prevention and Regulation Act, 1986 - New Labour Codes - Recent Trends.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

After completion of the course ,the student will be able :

CO1: To Understand and appreciate Industrial relations system and Trade unions

CO2: To Understand and Evaluate the Industrial Disputes and labour welfare measures

CO3: To articulate, and appraise the Labour legislation & legal provisions for factory workers, wages and Bonus

CO4: To analyse and evaluate the Legal provisions for equal remuneration, gratuity, compensation, industrial employment and Apprenticeship

CO5: To understand and apply the Legal provisions for EPF, ESI, Maternity, contract labours, and child labour prevention and the perspectives of New Laour Codes

CO PO MAPPING

CO	Program Outcomes							
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
1	3	1	2	2	2	3	2	1
2	2	2	2	3	1	3	2	1
3	3	2	2	1	2	3	2	1
4	2	1	1	3	2	3	2	1
5	2	3	3	2	1	3	2	1
Avg	2	1.8	2	2.2	1.6	3	2	1

REFERENCES :

1. Mamoria C.B. and Sathish Mamoria, Dynamics of Industrial Relations, Himalaya Publishing House, New Delhi, 2022.
2. Kapoor N. D , Elements of Mercantile Law, Sultan Chand and Sons, 2022.
3. ArunMonappa, RanjeetNambudiri, PatturajaSelvaraj. Industrial relations &Labour Laws. Tata McGraw Hill. 2012
4. P.K. Padhi, Industrial Laws, PHI, 2017.
5. Tax Mann, Labour Laws, 2022.
6. Srivastava, Industrial Relations and Labour laws, 8Th Edition, Vikas, 2022.
7. Web References: <https://labour.gov.in/labour-codes>

BA3021

**EMOTIONAL INTELLIGENCE FOR MANAGERIAL
EFFECTIVENESS**

**L T P C
3 0 0 3**

COURSE OBJECTIVE

- To appreciate the importance of Emotional Intelligence and Work Setting and becoming an effective Manager.

UNIT I INTRODUCTION TO EMOTIONAL INTELLIGENCE 9

Meaning of Emotions- Emotional Intelligence- Importance- Models of Emotional Intelligence- Trait EI- Social Intelligence- IQ and EQ- Self Awareness- Social Skills – Relationship Management- EI and Motivation

UNIT II UNDERSTANDING EMOTIONS 9

The Brain and Emotion - The Relationship of Mood and Emotion - The Role of Emotion in Organizational Health and the Bottom Line - Types of Emotions- Control of Emotions - Gender Differences in Emotion - Impulse Control- Marshmallow Experiment- Negative and Positive Emotions – Emotion and Health

UNIT III MANAGING EMOTIONS 9

Learning EI – Emotional Self Awareness – EI Assessment Tools - Emotional Intelligence and Psychological Adjustment - Issues in Anxiety, Stress, Depression, Anger, Self Esteem and Self-Management- Empathy

UNIT IV EI AT WORK PLACE 9

Emotional Intelligence and Decision Making - EI and Personality- Work Frustrations- EI and Work Performance- EI and Leadership - EI and Job Stress – EI and Information Processing - EI and Communication – Goal Conflict – EI and Conflict Resolution – EI and Work Place Diversity – Group EI – EI in Team Building - Star Performers

UNIT V EMOTIONAL COMPETENCY AND EMOTIONAL CAPITAL 9

Emotional Competence – Emotional Competence Inventory - Bourdieu’s Theory of Social Capital – Emotional Capital – Development of the concept – Developing Emotional Capital – Emotional Capital and wellbeing – Emotional Capital and Performance - Organizational Practices.

TOTAL: 45 PERIODS

COURSE OUTCOMES

CO1: To Recognize and apply basic concepts of Emotional Intelligence

CO2: To understand, appreciate and evaluate various emotions and their role in wellbeing

CO3: To assess and appraise the role of EI training in Managing Oneself.

CO4 : To determine the importance in EI in work place

CO5 : To evaluate the role of Emotional Capital and Emotional Competency in Individual and Organizational success.

CO PO MAPPING

CO	PO							
	1	2	3	4	5	6	7	8
1	1	1	2		3	3	1	3
2	1	1	2		2	3	1	2
3	2	2	3	1	3	3	1	2
4	2	1	3	1	3	3	1	2
5	2	1	2	1	3	3	1	3
Avg	1.6	1.2	2.4	0.6	2.8	3	1	2.4

REFERENCES

1. Daniel Goleman, Emotional Intelligence, Bloomsbury Publishing India Private Limited, 25th Anniversary Edition 2020.
2. Rajagopalan Purushothaman, Emotional Intelligence, SAGE Essentials, 2021.
3. Alok Alstom, Emotional Investment, Strategy and Management, 1st Edition, 2010.
4. Benedicte Gendron, The Power of the Emotional Capital in Education, Executive Functions, Heutagogy, and Mediation/Mindfulness, Sciences, Humaines et Sociales, Psychologie, Connaissance Savoirs, 2018.
5. Emotional Intelligence FOCUS, Harvard Business Review Press, 2019.
6. Deepa R, Unearthing your Emotional Intelligence, Notion Press, 1st Edition, 2020.
7. Emotional Intelligence – Key Readings on the Mayor Salovey Model, Edited by Peter Salovey, Marc.A.Brackette, and John D. Mayer, Dude Publishing, 2007.

OBJECTIVE :

- To derive a strong understanding of HR Analytics, Process and impact

UNIT I INTRODUCTION TO HUMAN RESOURCE ANALYTICS 9

Understanding HR indicators, metrics and data, HR Analytics Process, Frameworks for HR Analytics: LAMP Framework, HCM 21 Framework. Application of analytical techniques to evaluate human capital impact on business.

UNIT II STATISTICS FOR HRM 9

Statistical analysis for HR, Toolkits, Compensation KPIs, Power interest stakeholder matrix, Data models, Creating dash boards, analyzing and reporting.

UNIT III BEST PRACTICES IN HR ANALYTICS 9

Staffing, supply and demand forecasting, Total compensation analyses, Performance Analytics, Attrition Analytics, Learning and Development Analytics, Diversity Analytics, Employee engagement analytics - Employee satisfaction analytics.

UNIT IV MEASURING HR CONTRIBUTION 9

Developing HR Scorecard, Developing HR Analytics Unit: Analytics Culture, Analytics for decision making, Analytics for Human Capital in the Value Chain- Balance Score card – ROI –Predictive Analytics.

UNIT V HR REGULATIONS AND REPORTING REQUIREMENTS 9

Policies, Procedures and guidelines, Key regulations and reporting requirements, connecting missions or goals to HR Benchmarks and metrics, Reporting & Advising - the 4 rules of reporting HR analytics - importance of data visualization.

TOTAL: 45 PERIODS**COURSE OUTCOMES :**

On completion of the course, students will be able to

CO1 Gain clarity on the concept of HR Analytics.

CO2 Explore on statistics and toolkits.

CO3 Contrasting and assimilating best practices in HR analytics.

CO4 Demonstrate in analyzing optimal methods for measuring HR contribution

CO5 Design and construct HR regulations and reporting requirements.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	2	2				3		
CO 2	2		2			3		
CO 3		2				3		
CO 4	2					2		
CO 5	2	2				2		

READING LIST

- Mong Shen Ng, 'Predictive HR Analytics, Text Mining & Organizational Network Analysis (ONA)'.
- Nigel Guenole, Jonathan Ferrar, and Sheri Feinzig, (<https://amzn.to/35b9BNc>)
- Steve van Wieren, (<https://amzn.to/38rgT1y>)
- Erik van Vulpen, (<https://amzn.to/36ekU6l>)

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1. Martin Edwards, Kirsten Edwards, Predictive HR Analytics: Mastering the HR Metric, Kogan Page, 2nd Edition, 2019.
2. Pease G., Beresford B., Walker L., Developing Human Capital: Using Analytics to Plan and Optimize your Learning and Development Investments. Wiley, 1st Edition, 2014.
3. Fitz-Enz, J., The New HR Analytics: Predicting the Economic Value of Your Company's Human Capital Investments, American Management Association Amacom, 1st Edition, 2018.
4. Bassi, L., Carpenter, R., and McMurrer, D., HR Analytics Handbook, Reed Business, McBassi& Company, 1st Edition, 2012.
5. Sesil, J. C., Applying advanced analytics to HR management decisions: Methods for selection, developing incentives, and improving collaboration. Upper Saddle River, New Jersey: Pearson Education, 1st Edition, 2017.
6. Dipak Kumar Bhattacharyya, Hr Analytics: Understanding Theories and Applications, Sage Publications India Private Limited, 1st Edition, 2017.

BA3023 STRATEGIC HUMAN RESOURCE MANAGEMENT

L T P C
3 0 0 3

OBJECTIVE

- Students gain necessary insight on the strategic role of Human Resources in an organization and develop the skills and capabilities to become an effective HR managers.

UNIT I FRAMEWORK OF SHRM 9

Conceptual Background- Strategic Management and HRM - Strategic role of HR function - Models of SHRM-Characteristics of SHRM-Approaches to SHRM - SHRM Framework- HR Strategy – SHRM and Performance Outcomes - Emerging HR Scenario

UNIT II CONTEXT OF SHRM 9

Business Environment and SHRM- Systems Concept – Internal and External Environment - Global Context for SHRM- Technological Environment – IT and HRM- - Social Media and HR – Big Data and HR - Changing context and SHRM

UNIT III STRATEGY FORMULATION 9

Strategy Formulation and Planning – Integrated HR Systems – Work Flow Analysis – Strategic Job Analysis – Job Design and Redesign- De-jobbing – Competency Profiling and Job Modelling.

UNIT IV STRATEGY IMPLEMENTATION 9

Strategic Talent acquisition – Change and Strategic HRP- Strategic Training: Training to Learning, Organizational Learning, ADDIE model - Learning and Knowledge Management: Perspectives on Knowledge Management, Knowledge Sharing and Knowledge Seeking, Knowledge Management and Organizational Performance – Work force Utilization - Performance Appraisal to Performance Management – Strategic Compensation design - Employee Retention and Employee Engagement.

UNIT V STRATEGY EVALUATION 9

Measuring HRM – Approaches to HRM Evaluation – Evaluating HR Subsystems- Evaluating HR System – Strategic HR Evaluation Challenges – Future of SHRM.

TOTAL: 45 PERIODS

COURSE OUTCOMES

CO1: To Understand and appreciate strategic nature of human resource practices.

CO2: To evaluate the various environmental context of SHRM.

CO3: To articulate, evaluate and appraise the strategy formulation for job modelling and work analysis.

CO4: To analyse and evaluate the strategic implementation of HR Processes.

CO5: To measure and evaluate HR Strategies.

CO PO MAPPING

CO	PO							
	1	2	3	4	5	6	7	8
1	3	1	2	2	2	3	2	1
2	3	2	2	3	2	3	2	1
3	3	2	2	2	2	3	2	1
4	3	1	2	2	2	3	2	1
5	3	3	2	2	3	3	2	1
Avg	3	1.8	2	2,2	2.2	3	2	1

REFERENCES

1. Feza Tabassum Azmi, Strategic Human Resource Management – Text and Cases- Cambridge University Press, 2019.
2. Catherine Bailey, David Mankin, Clare Kelliher, and Thomas Garavan, Strategic Human Resource Management, 2nd Edition, Oxford University Press, 2018.
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4. John Storey, Patrick M Wright, and Dave Ulrich, Strategic Human Resource Management – A Research Overview, Routledge Focus, 2020.
5. Karen Beaven, Strategic Human Resource Management – An HR Professional's Toolkit, Kogan Page, 2019.
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7. Strategic Human Resource Management- An International Perspective, 3rd edition, Edited by Gary Rees and Paul E Smith, Sage Books, 2021.

BA3024

TALENT MANAGEMENT

**LTPC
3003**

OBJECTIVE:

- To have a clear understanding of the concept of talent management and its role.

UNIT I INTRODUCTION TO TALENT MANAGEMENT

9

Definition, Meaning of Talent Management, Objectives & Role of Talent Management in building the sustainable competitive advantage to a firm, Key Processes of Talent Management, Benefits of Talent Management, Talent vs. knowledge people, Source of Talent, Consequences of failure in managing talent, Tools for Managing Talent.

Building blocks of talent management: competencies – performance management, conducting performance reviews, Appraising executive talent, selecting the right appraisal.

UNIT II TALENT PLANNING – UNDERSTANDING THE NEEDS AND MIND SET OF EMPLOYEES 9

Succession management process, Integrating succession planning and career planning, designing succession planning program, talent development budget, contingency plan for talent; building a reservoir of talent, compensation management within the context of talent management.

UNIT III TALENT ACQUISITION AND RETENTION 9

Talent Acquisition- Defining Talent Acquisition, Develop high potential employees, High performance workforce, Importance of Talent Development Process, Steps in developing talent. Talent Retention: SMR Model (Satisfy, Motivate and Reward), Employee Retention Programs, Career Planning and Development, Best practices in employee retention.

UNIT IV COMPETENCY MAPPING 9

Concepts and definition of competency; types of competencies, Features of competency, approaches to mapping methods, Competency mapping procedures and steps , 5- level competency model, Developing competency models from raw data- data recording, analyzing the data, content analysis of verbal expression, validating the competency models, how competencies relate to career development and organizational goals.

UNIT V METHODOLOGY OF COMPETENCY MAPPING 9

Competency models people capability maturity model, developing competency framework, competency profiling, competency mapping tools, use of psychological testing in competency mapping , competency-based interviewing, assessment of competencies through 360 degree feedback, BEI, CIT, validation of competencies.

TOTAL: 45 PERIODS

OUTCOMES:

On completion of the course, students will be able to

CO1: Have a clear understanding the concept of talent management and its role

CO2: Have knowledge on talent planning

CO3: Have knowledge of talent acquisition and retention

CO4: Have an understanding of the concept of competency mapping and models of competency mapping

CO5: Have an understanding the methodology to be followed in competency mapping

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		2		3	2			
CO 2	2			2				
CO 3			2		3			3
CO 4	2					2		
CO 5	3						2	

READING LIST:

1. Talent management, William J Rothwell
2. Talent Management for the 21st century, P Cappelli-HBR
3. Strategic Talent Management, Robert J Greene
4. Reinventing Talent Management, Edward E Lawler

REFERENCES :

1. Seema Sanghi, The Handbook of Competency Mapping, Sage Publications, 3rd Edition, 2016
2. Lance A. Berger, The Talent Management Handbook, Making Culture a Competitive Advantage by Acquiring, Identifying, Developing, and Promoting the Best People Tata McGraw Hill, 3rd Edition, 2018.
3. Edward J Cripe, Competency Development Guide, Workitect Inc., 1st Edition, 2012.
4. Lyle M. Spencer, Signe M. Spencer, Competence at work: Models for Superior Performance, John Wiley Publishing, 1st Edition 2008.
5. Rao T.V., Performance Management: Toward Organizational Excellence, SAGE, 2nd Edition, 2015.
6. Sumati Ray Anindya Basu Roy, Competency Based Human Resource Management, SAGE, 1st Edition, 2019.

BA3025

NEGOTIATION AND CONFLICT MANAGEMENT

L T P C
3 0 0 3

OBJECTIVE:

- To develop an understanding of the nature and strategies of negotiation.
- To understand conflict and strategies to resolve the conflict.

UNIT I FUNDAMENTALS OF NEGOTIATION

9

Nature, Characteristics of negotiation- Dimensions of Negotiation-Structure- Norms & values- Types of Negotiation- Negotiation process- Perception and Preparation-Communication and Influence-Techniques of Negotiation- Issues in negotiation.

UNIT II NEGOTIATION STRATEGIES

9

strategy and planning for negotiation- Strategy and Tactics for distributive bargaining - Integrative negotiation-Negotiation power- source of power- Cross culture Negotiation-Ethics in negotiation.

UNIT III INTRODUCTION TO CONFLICT MANAGEMENT

9

Understanding conflict, components, perspective of conflict- Types of conflict- Models of conflict (Process & Structural)-Sources of conflict- Contingency approach, conflict management process, conflict domain, conflict trends, conflict distribution, conflict mapping and tracking-conflict & performance - Advantages & Disadvantages of Conflict.

UNIT IV MANAGING INTERPERSONAL, GROUP AND ORGANIZATIONAL CONFLICT

9

Individual difference- Personalities & abilities- Interpersonal conflict- Group conflict Organizational conflict- Dealing with difficult subordinates & boss-Technique to resolve team conflict- organizational conflict strategies.

UNIT V CONFLICT RESOLUTION AND COST

9

Conflict resolution models-framework model-classical ideas- new developments in conflict resolution-Environmental conflict resolution-gender and conflict resolution-Assessing the cost of workplace conflict.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

The student will be able to

CO1 Relate, classify and outline the fundamentals of Negotiation, Types, process and techniques.

CO2 Develop, Infer and Assess the Strategies and tactics in Negotiation.

CO3 Recall, explain, apply the basics of Conflict management, models, approaches and process.

CO4 Analyze and Manage interpersonal, group and organizational conflict.

CO5 Evaluate and infer the conflict resolution models and cost of workplace conflict.

CO PO MAPPING

CO	Program Outcomes							
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1			1					1
CO2					1			
CO3		2						
CO4	2		2	3				
CO5	3				2	3	2	1
Avg								

REFERENCES:

1. Negotiation - Roy Lewicki, Bruce Barry and David Saunders, MGH, 8TH edition 2020
2. Conflict Management – Stephan Proksch. Springer 2016
3. Corporate Conflict Management - concepts & skills by Eirene Rout, Nelson Omika, PHI, 2007
4. Negotiation- Communication for diverse settings- Michael Spangle, Sage Publication, 2008
5. Managing conflict and negotiation, B.D. Singh, 1st edition, Excel books, 2008.
6. Conflict Management: Practical guide to develop negotiation strategies, Barbara A BudjacCorvette, Pearson Prentice Hall, 2006, ISBN: 8174466428, 9788174466426
7. Managing Conflict in Organizations, M. Afzalur Rahim, 4th Edition, Transaction Publishers, 2011, ISBN 1412844258, 9781412844253

BA3026**INTERNATIONAL HRD****L T P C
3 0 0 3****OBJECTIVE:**

- To elucidate development of global IHRM practices

UNIT I IHRD**9**

Scope of IHRD- Positivist and Interpretive views on Culture, Values, Power-Cross Cultural Management, Model, Dimensions; Comparison between HRD India and Globalization. Learning Theories globally and implications-Career development in multinational and multicultural environment-Schein's career anchors-Holland's vocational preference inventory.

UNIT II PROCESSES**9**

Transfer of employment practices across borders-The four influences framework-IHRM approaches-Factors affection-Implications. International Assignments and Employment practices- motives-Process-Dimensions of success and failure. Expatriation- Developing International Staff and Multinational Teams, Approaches to International Compensation.

UNIT III DEVELOPMENT & PRACTICES 9

Multinational companies and Host companies-Sustainable practices of host and divergent country employment arrangements-Global Employment Relations.Training & Development in global environment- Krikpatrick’s Taxonomy-Expatriate Training, PMS -Transition of Expats to global leaders-Global and local sourcing-Compliance to Labour Market-Capitalist Vs Socialist Market economies

UNIT IV PRACTICES IN ECONOMIES 9

PMS in different economies- Total Rewards in International Context-Components-Complexities-approaches.

Global Context: EEO-Gender Sensitivity-Diversity-Inclusivity- Onshoring, offshoring, Friendshoring-Models of strategic HRD.

UNIT V SUSTAINABILITY 9

Repatriation-issues-best practices; Sustainable practices through Ethics and CSR; Green HRD; Ethical Issues-dispute settlement-International labour contract.

Knowledge Management-Transfer; Changing and Future Trends: International labour standards, Managing Remote Work -issues-digital privacy and decent work.

TOTAL: 45 PERIODS**OUTCOMES:**

On completion of the course, students will be able to

CO1: Demonstrate IHRM factors influential in global corporations

CO2: Design IHRM elements for global assignments

CO3: Critique and conclude developmental strategies for IHRM practices

CO4: Implement and audit compliance IHRM norms

CO5: Predict and appraise sustainable IHRM practices

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		2		2				
CO 2	2				2			
CO 3		3						
CO 4						2		
CO 5								2

READING LIST:

1. International HRD: context, processes and people – introduction
2. Theoretical frameworks for comparing HRD in an international context, Jean Woodall
3. The Issue of International Values and Beliefs: The Debate for a Global HRD Code of Ethics, Darlene Russ-Eft, Timothy Hatcher
4. International Technology Transfer For Competitive Advantage: A Conceptual Analysis Of The Role Of HRD, A. Ahad M. Osman-Gani

REFERENCES :

1. K Ashwathappa, International Human Resource Management, TATA McGraw Hill, 2nd Edition, 2017.
2. Anne-Wil Harzing, Ashly Pinnington, International Human Resource Management, SAGE, 4th Edition, 2014.
3. Thomas Garavan, Alma McCarthy, Ronan Carbery, Handbook of International Human Resource Development: Context, Processes and People, Edward Elgar Publishing, 3rd Edition, 2017.
4. Peter J. Dowling | Marion Festing | Allen D. Engle, International Human Resource Management, CENGAGE INDIA,7th Edition , 2017.

5. Edwards Tony, Chris Rees, International Human Resource Management: Globalization, National Systems and Multinational Companies, Pearson Education India, 3rd Edition, 2016.
6. Yongsun Paik , Charles M. Vance, Managing A Global Workforce : Challenges And Opportunities In International Human Resource Management, PHI Learning, 2nd Edition, 2013.

BA3027

COMPENSATION AND REWARDS MANAGEMENT

**L T P C
3 0 0 3**

OBJECTIVES:

- To familiarize the students to the basic concepts of compensation.

UNIT I COMPENSATION

9

types of compensation, conceptual framework of compensation management, Theories of wages – criteria of wage fixation – Institutional and cultural factors on compensation practices – National differences in compensation – Compensation system design issues: Compensations Philosophies, compensation approaches – Strategic

UNIT II COMPENSATION PLANNING

9

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.

UNIT III VARIABLE PAY

9

Strategic reasons for incentive plans, administering incentive plans, individual incentive plans, group incentive plans ,team compensation, ESOPs, Performance measurement issues, incentive application and globalization, Managing Employee Benefits: Nature and types of benefits, employee benefits programs security benefits, retirement security benefits, health care benefits, time–off benefits, benefits administrations, employee benefits required by law, discretionary major employee benefits, employee services designing a benefits package.

UNIT IV EXECUTIVE COMPENSATION

9

Elements of executive compensation and its management, Executive compensation in an international context, Wage Determination: Principles of wage and salary administration, methods of wage determination in India; internal and external equity in compensation systems

UNIT V WAGE ADMINISTRATION IN INDIA

9

wage policy in India, wage boards: structure, scope and functions, Pay Commissions. International Compensation, global convergence of compensation practices - Pay for performance for global employees -practices in different industries, Employee benefits around the world, CEO pay in a global context, Beyond compensation.

TOTAL: 45 PERIODS

OUTCOMES:

On completion of the course, students will be able to

CO1: Be familiarized with compensation

CO2: Understand Compensation Planning

CO3: Design Executive Compensation

CO4: Understand Wage administration in India

CO5: Be aware of the importance of Wage administration in India

UNIT IV THE ESSENTIALS OF DESIGN**9**

Designing Effective Output: Objectives, Types of Output, Method, Factors to consider - Designing Effective Input: Objectives, Guideline for Form design, Screen and Web Forms, Designing User Interface: Objectives, Types of user interface, Designing Accurate Data – Entry Procedures: Objectives, Effective coding, Data-Entry Method, Ensuring data quality through input validation.

UNIT V QUALITY ASSURANCE THROUGH SOFTWARE ENGINEERING**9**

Design of Software, Software design and documentation: Structured Flowcharts, HIPO, Warnier /Orr Diagrams Managing Quality Assurance: Level of Assurance, Level of Test Implementation of Information System: Training Strategies, Conversion, Post Implementation Review -Case Studies - Financial Accounting System - Payroll System – Library System - Inventory System - Online Banking System - Railway Reservation system (Input, Output, DFD).

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

On completion of this course, students will;

CO1 Demonstrate proficiency in conducting system analysis and design, understanding the fundamental concepts and principles involved in the process.

CO2 Apply system development strategies, such as the Systems Development Life Cycle (SDLC) and structured analysis development methods, to effectively plan and execute system development projects.

CO3 Utilize computer-assisted tools (CASE tools) to enhance the system analysis and design process, leveraging their benefits for improved efficiency and effectiveness.

CO4 Apply various system analysis techniques, including data flow diagrams (DFD), data dictionaries, process specifications, decision trees, decision tables, and structured English, to effectively analyze and design system components.

CO5 Ensure the quality of the designed system through software engineering practices, including proper software design and documentation, implementation testing, and post-implementation review.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3					3		
CO 2		3				3		
CO 3	2			3				
CO 4		3				2		
CO 5	3					3		

REFERENCES:

1. Rajaraman, V. Analysis and design of information systems. PHI Learning Pvt. Ltd., 2018.
2. Hoffer, Jeffrey A. Modern systems analysis and design, 6/e. Pearson Education India, 2012.
3. Alan Dennis and Barbara Wixom, Roberta M. Roth, Systems Analysis and Design, Wiley, 2018
4. Whitten J. L, Bentley L. D, Systems Analysis and Design Methods, McGraw Hill, 2005.
5. Kenneth E. Kendall, Julie E. Kendall, Systems Analysis and Design, Pearson Education, 10th Edition, 2019

COURSE OBJECTIVE:

To Prepare students with comprehensive knowledge and skills to operate and manage e-commerce ventures effectively.

UNIT I INTRODUCTION 9

Introduction to World Wide Web – Intelligent Web Designing – Software Tools – IP, TCP, HTTP, HTML, Cryptography – Consumer Interface Technologies – OLAP and Data Mining.

UNIT II E-COMMERCE 9

Principles – Potential – Knowledge Management – Data Warehousing – Application of E-Commerce in Different Sector – Service, Industry, Domestic – Multidisciplinary Approach to E-Commerce, Customer Relation Management.

UNIT III BUSINESS MODEL 9

E-Marketing – Intelligent Agents – Economics in E-Commerce – Equilibrium Price – Supply Chain Management – ERP Tools and Modules – Opportunities and Challenges – Mobile Commerce.

UNIT IV ONLINE PAYMENT 9

Online Payment – E-Security – Security Protocols – How sites are hacked – Internet Governance – Firewall, Legal Issues: Software Intellectual Property Law – Contract Law for E-Business – Cyber Law Issues – Interpol.

UNIT V E-COMMERCE INDUSTRIES 9

Online Retail Sector – Online Financial Services – Online Travel Services – Online Career Services – Online Publishing – Online Entertainment Consumer Protection: Privacy and Information Rights – Warranties and New Products.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

Upon completion of the course, students will be able to:

1. Demonstrate understanding of essential e-business components and technologies.
2. Apply knowledge management and e-commerce principles across different sectors.
3. Analyze business models, marketing strategies, and challenges in e-commerce.
4. Understand online payment systems, e-security protocols, and legal considerations.
5. Evaluate the e-commerce industry landscape and consumer protection concerns.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1					2	2	2	
CO 2		3		2				
CO 3		2				3		
CO 4		3	3			3	3	
CO 5				3		3		

REFERENCES

1. Joseph, P. T. E-Commerce: An Indian Perspective. 5th Edition. PHI Publications, 2015.
2. Urmi Datta & Neha Somani, "E-commerce and Business Communication", Oxford University Press, 1st Edition, 2017
3. David Whiteley, "E-Commerce: Strategy, Technologies and Applications", Indian Edition, McGraw Hill Publications, 2017.
4. Elassi, Tawfik, Martínez-López, Francisco J, "Strategies for e-Business - Concepts and Cases on Value Creation and Digital Business Transformation",
5. Jelassi, Tawfik, Martínez-López, Francisco J, "Strategies for e-Business - Concepts and Cases on Value Creation and Digital Business Transformation", Springer Publications, 2020.

BA3030

INTERNET OF THINGS

L T P C
3 0 0 3

COURSE OBJECTIVE:

- To provide insights to the students on the basic concepts of IoT.

UNIT - I INTRODUCTION

9

Evolution of Internet of Things - Physical Design of IoT - Logical Design of IoT - IoT Enabling Technologies - IoT Levels and Deployment Templates - Domain Specific to IoTs.

UNIT - II IOT ARCHITECTURE

9

ETSI, IETF, OGC architectures - IoT reference model - Domain model - information model - functional model - communication model - IoT reference architecture.

UNIT - III BUILDING IOT

9

IoT Systems - Logical Design using Python - IoT Physical Devices and Endpoints: What is an IoT Device - Basic building blocks of an IoT device - Exemplary Device: Raspberry Pi - Programming Raspberry Pi with Python - Other IoT Devices.

UNIT - IV IOT DATA PLATFORM

9

Data Analytics for IoT: Introduction - Apache Hadoop - Using Hadoop Map Reduce for Batch Data Analysis - Apache Oozie - Apache Spark - Tools for IoT - Introduction - Chef: Setting up Chef.

UNIT - V CASE STUDIES AND REAL-WORLD APPLICATIONS

9

Real world design constraints - IoT Physical Servers & Cloud Offerings - Case Studies Illustrating IoT Design: Introduction - Asset management – Smart Cities - Environment - Productivity Applications.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

1. Understanding the basic concepts of IoT.
2. Analysing the various models related to IoT architecture.
3. Evaluate the design and building blocks of IoT.
4. Assess the importance of data analytics tools for IoT.
5. Analyse the IoT related case-studies and real world applications.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3	2	3	2	3	2	2
CO 2	3	2	2	3	3	1	1	3
CO 3	3	3	3	2	3	2	2	2
CO 4	2	2	2	2	2	3	3	1
CO 5	3	3	3	3	2	2	3	1

REFERENCES

1. Dieter Uckelmann, Mark Harrison, Michahelles, Florian (Eds), —Architecting the Internet of Things, Springer, 2011.
2. Honbo Zhou, —The Internet of Things in the Cloud: A Middleware Perspective, CRC Press, 2012.
3. Jan Holler, Vlasios Tsiatsis, Catherine Mulligan, Stamatis, Karnouskos, Stefa Avesand. David Boyle, "From Machine-to-Machine to the Internet of Things – Introduction to a New Age of Intelligence", Elsevier, 2014..
4. Olivier Hersent, David Boswarthick, Omar Elloumi, —The Internet of Things – Key applications and Protocols, Wiley, 2012
5. Adrian McEwen and Hakim Cassimally, “Designing the Internet of Things”, John Wiley & Sons, 2013.

BA3031

CLOUD COMPUTING

L T P C
3 0 0 3

OBJECTIVE

- To provide insights on characteristics, challenges and virtualization concepts of cloud computing.

UNIT I HISTORY OF CLOUD COMPUTING

9

History of Centralized and Distributed Computing - Overview of Distributed Computing, Cluster computing, Grid computing. Technologies for Network based systems- System models for Distributed and cloud computing- Software environments for distributed systems and clouds

UNIT II INTRODUCTION TO CLOUD COMPUTING

9

Introduction to Cloud Computing- Cloud issues and challenges - Properties - Characteristics - Service models, Deployment models. Cloud resources: Network and API - Virtual and Physical computational resources - Data-storage. Virtualization concepts - Types of Virtualization- Introduction to Various Hypervisors - High Availability (HA)/Disaster Recovery (DR) using Virtualization, Moving VMs .

UNIT III CLOUD COMPUTING APPLICATIONS

9

Cloud Programming and Software Environments – Parallel and Distributed Programming paradigms – Emerging Cloud software Environment.

UNIT IV CLOUD SECURITY

9

Cloud Access: authentication, authorization and accounting - Cloud Provenance and metadata - Cloud Reliability and fault-tolerance - Cloud Security, privacy, policy and compliance Cloud federation, interoperability and standards.

UNIT V GOVERNANCE AND THE FUTURE OF CLOUD

9

Organizational Readiness and Change Management in the Cloud Age, Legal Issues in Cloud Computing, Achieving Production Readiness for Cloud Services, How Cloud Will Change Operating Systems, Future of Cloud TV & Cloud-Based Smart Devices, Cloud and Mobile, Home-Based Cloud Computing.

TOTAL: 45 PERIODS

COURSE OUTCOMES

1. Understanding the history and models of cloud computing.
2. Analyse the characteristics, challenges and virtualization concepts of cloud computing..
3. Comprehend on cloud computing applications
4. Compare and contrast on cloud access, cloud provenance and cloud security.
5. Applying your thoughts on governance and the future of cloud based system in organization

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	2	3	3	3	2	3	3
CO 2	3	3	3	2	2	3	1	2
CO 3	2	3	3	3	3	3	2	2
CO 4	2	2	2	2	2	2	3	3
CO 5	3	2	2	3	1	1	3	1

READING LIST:

1. Journal of Cloud Computing, Advances, Systems and Applications, Springer Open.
2. Special Issue on Cloud-based Media Computing and Communications, Computer Communications, Elsevier.

REFERENCES:

1. Rao, M N ; Cloud Computing; Prentice Hall India; 2015
2. Kris Jamsa, Cloud Computing, Jones & Bartlett Learning, 2013
3. Kumar Saurabh, Cloud Computing – Insights into new era infrastructure, Wiley India, 2nd Edition, 2012
4. RajkumarBuyya, James Broberg and AndrzejGoscinski, Cloud Computing – Principles and Paradigms, John Wiley & Sons, 2011
5. Barrie Sosinsky, “ Cloud Computing Bible” John Wiley & Sons, 2011

BA3032

ENTERPRISE RESOURCE PLANNING

L T P C

3 0 0 3

OBJECTIVE:

To develop students with the necessary knowledge and skills to effectively analyze, select, implement, and integrate ERP systems in various business contexts.

UNIT I INTRODUCTION

9

ERP Introduction - Origin, Evolution, Structure and Benefits - Conceptual Model of ERP- Scenario and Justification of ERP in India - Various Modules of ERP - Advantage of ERP.

UNIT II DATA MANAGEMENT

9

Advancement of IT and Impact on organizations data management: Data warehousing, Data Mining, Online Analytic Processing (OLAP), Product Life Cycle Management (PLM).ERP Marketplace and Marketplace Dynamics: Market Overview, Marketplace Dynamics, and The changing ERP Market.

UNIT III MARKETPLACE DYNAMICS

9

ERP Marketplace and Marketplace Dynamics: Market Overview, Marketplace Dynamics, and The changing ERP Market. ERP- Functional Modules: Introduction, Functional Modules of ERP Software Integration of ERP, Supply chain and Customer Relationship Applications.

UNIT IV ERP IMPLEMENTATION

9

ERP- Functional Modules: Introduction, Functional Modules of ERP Software Integration of ERP, Supply chain and Customer Relationship Applications.ERP Implementation: Business Process mapping and re-engineering, ERP Implementation Life Cycle, Role of Consultants, Vendors and Employees. Critical Success Factors: Guiding.

UNIT V TRENDS

9

Selection and Evaluation of ERP, Strategies and CSF for Successful ERP Implementation, Causes of ERP Failure. Practical Module: ERP & E-Commerce, Future Directives- in ERP, Integrating ERP into organizational culture. Using an open source ERP tool for orienting students to ERP.

TOTAL: 45 PERIODS

UNIT III PROJECT TEAMS 9

Recruiting Organizing and Managing the Project Team - Monitoring and Controlling Progress - Closing out the Projects - Critical Chain Project Management - Activity planning, project schedules, sequencing and scheduling projects. Test Maturity Model & Six Sigma: Overview, Key Process Areas, TPI framework of test quality, levels of maturity, assessment, analysis, reporting.

UNIT IV FRAMEWORK 9

Introduction to the Adaptive Project Framework - Version Scope - Cycle Plan - Cycle Build - Client Checkpoint - Post-Version Review - network planning model, shortening project duration, Identifying critical activities. Six Sigma & Lean Process Model: quality criteria, quality metrics, frameworks, process wastages, operational processes, guidelines and templates

UNIT V STANDARDISATIONS 9

Variations to APF- Software configuration management, Basic functions, Responsibilities, standards configuration management, prototyping, models of prototyping. Organizational Considerations - Project Portfolio Management - Project Support Office Case study - Prince Project management standards. Audits: ISO, CMM, People CMM, TMM, Six Sigma.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

- CO1:** Comprehend and reflect on overview of project planning, project evaluation, project analysis and technical planning, software estimation.
- CO2:** Analyze Resource scheduling and management, CMM, key process indicators, process monitoring and control.
- CO3:** Generate and align Critical Chain Project Management, Test Maturity Model & Six sigma and collate reports.
- CO4:** Evaluate existing Adaptive Project Framework and build quality models based on Six Sigma & Lean Process Model.
- CO5:** Contrast and conclude Software configuration management processes and audit Quality standardisations.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	2	3	3	3	2	3	2
CO 2	3	3	3	3	3	2	3	3
CO 3	2	3	2	2	2	3	2	1
CO 4	3	2	2	2	3	3	2	2
CO 5	3	1	1	3	2	1	3	3

READING LIST:

1. Software Quality Journal, Springer
2. International Journal of Project Management, Elsevier

REFERENCES :

1. Richard L. Chamberlain, Planning Quality Project Management of (EMR/EHR) Software Products (HIMSS Book Series), CRC Press, 1st Edition 2017.
2. Ronald Cummings - John, Owais Peer, Leading Quality: How Great Leaders Deliver High Quality Software and Accelerate Growth, ROI Press, 1st Edition 2019.
3. Greg Caldwell, Lean Mastery: 8 Books in 1 - Master Lean Six Sigma & Build a Lean Enterprise, Accelerate Tasks with Scrum and Agile Project Management, Optimize with Kanban, and Adopt The Kaizen Mindset, Greg Caldwell Publishing, 1st Edition 2020.
4. Stephan Goericke, The Future of Software Quality Assurance, 1st 2020, Springer Open.
5. Linda Westfall, The Certified Software Quality Engineer Handbook, ASQ Quality Press, 2nd Edition, 2017.

OBJECTIVE:

- To provide insights to the characteristics and architecture of data warehouse.

UNIT I DATA WAREHOUSE 9

Introduction to Data warehouse, Difference between operational database systems and data warehouses, Data warehouse Characteristics, Data warehouse Architecture and its Components, Extraction-Transformation-Loading, Logical(Multi-Dimensional), Data Modeling, Schema Design, Star and Snow-Flake Schema, Fact Constellation, Fact Table, Fully Addictive, Semi-Addictive, Non-Addictive Measures; Fact-Less-Facts, Dimension Table Characteristics; OLAP Cube, OLAP Operations, OLAP Server Architecture-ROLAP, MOLAP and HOLAP.

UNIT II DATA MINING 9

Fundamentals of data mining, Data Mining Functionalities, Classification of Data Mining systems, Data Mining Task Primitives, Integration of a Data Mining System with a Database or Data Warehouse System, Major issues in Data Mining. Data Preprocessing: Need for Preprocessing the Data, Data Cleaning, Data Integration & Transformation, Data Reduction, Discretization and Concept Hierarchy Generation.

UNIT III ASSOCIATION RULES 9

Problem Definition, Frequent Item Set Generation, The APRIORI Principle, Support and Confidence Measures, Association Rule Generation; APRIORI Algorithm, The Partition Algorithms, FP-Growth Algorithms, Compact Representation of Frequent Item Set- Maximal Frequent Item Set, Closed Frequent Item Set.

UNIT IV CLASSIFICATION 9

Problem Definition, General Approaches to solving a classification problem, Evaluation of Classifiers, Classification techniques, Decision Trees-Decision tree Construction, Methods for Expressing attribute test conditions, Measures for Selecting the Best Split, Algorithm for Decision tree Induction; Naive-Bayes Classifier, Bayesian Belief Networks; K- Nearest neighbor classification-Algorithm and Characteristics, prediction: Accuracy and Error measures, Evaluating the accuracy of a classifier or a predictor, Ensemble methods.

UNIT V CLUSTERING 9

Clustering Overview, A Categorization of Major Clustering Methods, partitioning methods, hierarchical methods, , partitioning clustering-k-means algorithm, pam algorithm; hierarchical clustering-agglomerative methods and divisive methods, Basic Agglomerative Hierarchical Clustering Algorithm, Key Issues in Hierarchical Clustering, Strengths and Weakness, Outlier Detection.

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

- CO1:** Have insights to the characteristics and architecture of data warehouse.
CO2: Apply knowledge on the fundamentals, classification and major issues in data mining.
CO3: Apply knowledge on APRIORI principle & Algorithm and Association rule generation.
CO4: Understanding on classification techniques, decision tree and Bayesian Belief Networks.
CO5: Understand the various clustering techniques.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	2	3	3	3	2	3	2
CO 2	2	3	2	2	2	2	1	2
CO 3	3	3	3	2	1	3	2	3
CO 4	3	2	2	2	3	3	2	3
CO 5	3	2	2	3	2	1	3	1

READING LIST:

1. Data Mining and Knowledge Discovery, Springer
2. International Journal of Information Management, Science Direct

REFERENCES:

1. Parteek Bhatia; Data mining and data warehousing; Principles and Practical applications; Cambridge University Press; 2019
2. PaulrajPonniah, Data warehousing Fundamentals, Wiley Publications. 2nd Edition, 2012
3. Michel Berry and Gordon Linoff, Data mining techniques for Marketing, Sales and Customer support, John Wiley, 2011
4. George M. Marakas, Modern Data Warehousing, Mining and Visualization, Pearson Publications. 3rd Impression, 2009
5. Jaiwei Ham and MichelineKamber, Data Mining concepts and techniques, Kauffmann Publishers, 2006

BA3035

DEEP LEARNING AND ARTIFICIAL INTELLIGENCE

L T P C
3 0 0 3

OBJECTIVES:

- This course aims to provide students with a comprehensive understanding of deep networks, models, intelligent systems, knowledge representation, and their applications in the field of artificial intelligence.

UNIT I DEEP NETWORKS

9

Deep Networks: Modern Practices: Deep Forward Networks: Example: Learning XOR -Gradient-Based Learning - Hidden Units - Architecture Design - Regularization for Deep Learning.

UNIT II MODELS:

9

Optimization for Training Deep Models: How Learning Differs from Pure Optimization -Challenges in Neural Network Optimization - Basic Algorithms - Parameter Initialization Strategies - Algorithms with Adaptive Learning Rates - Approximate Second-Order Methods - Optimization Strategies and Meta-Algorithms.

UNIT III INTELLIGENT SYSTEMS

9

Introduction to Artificial Intelligence: Intelligent Systems - Foundations of AI - Applications -Tic-Tac-Toe Game Playing - Problem Solving: State-Space Search and Control Strategies: Introduction - General Problem Solving - Exhaustive Searches - Heuristic Search Techniques.

UNIT IV KNOWLEDGE REPRESENTATION

9

Advanced Problem-Solving Paradigm: Planning: Introduction - Types of Planning Systems - Knowledge Representation: Introduction - Approaches to Knowledge Representation -Knowledge Representation using Semantic Network - Knowledge Representation using Frames.

UNIT V APPLICATIONS**9**

Expert Systems and Applications: Blackboard Systems – Truth Maintenance Systems – Applications of Expert Systems – Machine-Learning Paradigms: Machine-Learning Systems – Supervised and Unsupervised Learnings.

TOTAL: 45 PERIODS**OUTCOMES:**

CO1: Apply modern practices and techniques in deep networks, including gradient- based learning, hidden units, architecture design, and regularization, to effectively solve complex problems

CO2: Employ optimization strategies, such as parameter initialization, adaptive learning rates, and approximate second-order methods, to optimize deep models and improve their performance.

CO3: Demonstrate proficiency in utilizing problem-solving techniques, such as state- space search and control strategies, to develop intelligent systems that can address real-world challenges.

CO4: Utilize various approaches to knowledge representation, such as semantic networks and frames, to effectively model and represent knowledge in intelligent systems.

CO5: Analyze, design, and implement expert systems, including blackboard systems and truth maintenance systems, to solve domain-specific problems in diverse fields.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3	2	3	3	2	1	3
CO 2	3	3	3	3	3	3	2	3
CO 3	3	3	2	3	3	2	2	3
CO 4	3	3	2	3	3	2	1	3
CO 5	3	2	1	3	2	2	1	3

REFERENCES :

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2. LiDeng and DongYu, "Deep Learning Methods and Applications", Foundations and Trends in Signal Processing.
3. YoshuaBengio, "Learning Deep Architectures for AI", Foundations and Trends in Machine Learning.
4. SarojKaushik, "Artificial Intelligence", Cengage Learning India Pvt.Ltd.
5. DeepakKhemani, "A First Course in Artificial Intelligence", McGraw Hill Education (India) Private Limited, New Delhi.
6. ElaineRich, KevinNight, Shivashankar B Nair, "Artificial Intelligence"Third Edition, McGrawHill, 2008.

BA3036**FUNDAMENTALS OF BUSINESS ANALYTICS****L T P C
3 0 0 3****COURSE OBJECTIVE:**

- To enable the students to understand the basics of Business Analytics.

UNIT I INTRODUCTION TO BUSINESS ANALYTICS**9**

Meaning - Historical overview of data analysis – Data Scientist Vs Data Engineer Vs Business Analyst – Career in Business Analytics – Introduction to data science – Applications for data science – Roles and Responsibilities of data scientists

UNIT II DATA VISUALIZATION 9

Data Collection-Data Management-Big Data Management-Organization/sources of data - Importance of data quality - Dealing with missing or incomplete data - Data Visualization - Data Classification Data Science Project Life Cycle: Business Requirement-Data Acquisition–Data Preparation- Hypothesis and Modeling- Evaluation and Interpretation, Deployment, Operations, Optimization

UNIT III DATA MINING 9

Introduction to Data Mining - The origins of Data Mining - Data Mining Tasks-OLAP and Multidimensional data analysis-Basic concept of Association Analysis and Cluster Analysis.

UNIT IV MACHINE LEARNING 9

Introduction to Machine Learning - History and Evolution - AI Evolution –Statistics Vs Data Mining Vs, Data Analytics Vs, Data Science-Supervised Learning, Unsupervised Learning, Reinforcement Learning–Frame works for building Machine Learning Systems.

UNIT V APPLICATION OF BUSINESS ANALYSIS 9

Retail Analytics- Marketing Analytics-Financial Analytics -Healthcare Analytics –Supply Chain Analytics.

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

The students will be able to

- CO1** Understand the basics of Business Analytics.
- CO2** Describe and visualize data through collecting, managing and analyzing data.
- CO3** Analyse knowledge on data mining and multi-dimensional data analysis.
- CO4** Evaluate Survey knowledge on machine learning and AI.
- CO5** Summarize knowledge on the analysis of various areas of business.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	2	3	3	2	2	3	2
CO 2	2	3	2	2	2	2	2	3
CO 3	2	3	2	2	3	3	2	2
CO 4	3	2	3	2	3	2	1	1
CO 5	3	3	2	3	3	3	1	1

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2. http://www.gerkoole.com/IBA/downloads/IBA_Koole_first_chapters.pdf

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1. Majid Nabavi, David L. Olson, Introduction to Business Analytics, Business Expert Press,2018
2. Umesh R Hodeghatta and Umesha Nayak, Business Analytics Using R - A Practical ApproachApress,2017.
3. Jeffery D. Camm, James J. Cochran, Michael J. Fry, Jeffrey W. Ohlmann, David R. Anderson, Essentials of Business Analytics, Cengage Learning, 2015
4. Sandhya Kuruganti, Business Analytics: Applications To Consumer Marketing, McGraw Hill, 2015
5. Bernard Marr, Big Data: Using Smart Big Data, Analytics and Metrics to Make Better Decisions and Improve Performance,Wiley,2015

COURSE OBJECTIVE:

- To equip students with the knowledge and skills necessary to effectively analyze data using the R programming language.

UNIT I OVERVIEW OF R PROGRAMMING 9

Environment setup with R Studio- SAS versus R - R, S, and S-plus - Obtaining and managing R - Objects - types of objects, classes, creating and accessing objects- Arithmetic and matrix operations-Introduction to functions.

UNIT II WORKING WITH R 9

Reading and writing data-R libraries-Functions and R programming–the If statement-looping:for, repeat, while-writing functions-function arguments and options– Basic R commands

UNIT III READING AND GETTING DATA IN TO R (External Data) 9

Using CSV files, XML files, Web Data, JSON files, Databases and Excel files. Working with R Charts and Graphs: Histograms, Box plots, Bar Charts, Line Graphs, Scatterplots, Pie Charts.

UNIT IV STATISTICAL ANALYSIS IN R 9

Random Forest, Decision Tree, Normal and Binomial distributions, Time Series Analysis, Linear and Multiple Regression, Logistic Regression, Survival Analysis.

UNIT V DATA FOR ANALYTICS 9

Creating data for analytics through designed experiments, Creating data for analytics through active learning, Creating data for analytics through einforcement learning.

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

On completion of this course, students will

- Become proficient in using R programming language, including understanding the syntax, working with objects, performing operations, and using functions.
- Learn how to import and manage data from various sources and create visualizations to gain insights from the data.
- Learn and apply statistical techniques such as regression, probability distributions, and time series analysis to analyze data and make informed decisions.
- Gain knowledge and skills in advanced analytics techniques such as Random Forest and Decision Trees to analyze complex datasets and make predictions or classifications.
- Learn techniques to design experiments and collect data for analytics purposes, as well as explore methods like active learning and reinforcement learning to improve data accuracy.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		3				2		
CO 2	2	3				3		
CO 3					3	2	3	
CO 4				2			3	
CO 5	3					2		

REFERENCES:

1. Raghav Bali, Dipanjan Sarkar, and Tushar Sharma. Learning Social Media Analytics with R. Packt Publishing Ltd, 2017.
2. Nina Zumel and John Mount. Practical Data Science with R. Manning Publications, 2014.
3. Peter Dalgaard. Introductory Statistics with R. 1st Edition. Springer-Verlag New York, Inc., 2019. ISBN 0-387-95475-9.
4. W. N. Venables and B. D. Ripley. 2002, Modern Applied Statistics with S. 4th Edition. Springer. (ISBN 0-387-95457-0)]
5. Andreas Krause, Melvin Olson. 2005, The Basics of S-PLUS, 4th edition, Springer-Verlag, New York (ISBN 0-387-26109-5)

BA3038

BUSINESS ANALYTICS USING PYTHON

L T P C

3 0 0 3

COURSE OBJECTIVE:

- To empower students with the ability to effectively apply Python for business analytics, enabling them to derive valuable insights and make data-driven decisions across diverse domains.

UNIT I INTRODUCTION

9

Introduction to Business Analytics - Evolution of Business Data and Analytics timeline – Types of Analytics - Marketing Analytics Applications - Summarizing & Reporting Marketing Data using Excel.

UNIT II VISUALIZING BUSINESS DATA USING TABLEAU

9

Visualizations Using Python & R - Understanding the Metrics across domains -Developing Metrics - Flowchart for Metric Creation.

UNIT III BUSINESS MODELS & STRATEGIES

9

Business Models - Marketing Engineering – Segmentation Analytics – Clustering Algorithms - Positioning Analysis - Data Mining applications.

UNIT IV MARKETING MIX ANALYTICS

9

New Product development decisions - Pricing the Product - Forecasting the Sales – Allocating the Retail space & Sales Resource – Consumer Attribution Modelling Methods.

UNIT V MARKETING MIX ANALYTICS APPLICATIONS

9

Customer Churn Modelling – Purchase Behaviour Prediction Models- social media Listening and Sentimental Analysis – Market Basket Analysis – RFM Analysis – Recommender Systems development.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

After studying this course, Students will

1. Acquire a strong command of Python for conducting business analytics tasks, encompassing data manipulation, analysis, and visualization.
2. Learn to employ Python libraries to craft compelling and informative visual representations of data, empowering them to effectively convey insights to stakeholders.
3. Gain practical experience in utilizing Python libraries to implement advanced analytics methods, such as segmentation analysis, clustering, sentiment analysis, and market basket analysis.

4. Acquire the skills to analyze business data using Python, extract valuable insights, and leverage them to make well-informed decisions across various domains, including marketing, pricing, forecasting, and resource allocation.
5. Engage in hands-on projects and case studies that simulate real-world scenarios, enabling them to apply Python and business analytics techniques to solve complex problems and generate actionable recommendations.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		3				2		
CO 2	3	3			2			
CO 3				2		3		
CO 4				3	2	2		
CO 5		3				3		

References:

1. "R for Marketing Research and Analytics", Chris Chapman, Springe Publications, 1st Edition, 2015.
2. "Business Analytics", Dinesh Kumar U Wiley India, 1st Edition, 2017.
3. Marketing Metrics: The Definitive Guide to Measuring Marketing Performance", Paul W Farris, Pearson Education, 2nd Edition, 2010
4. Business Analytics- Texts and Cases", Tanushri Banerjee & Arindham Banerjee Sage Publications, 1st Edition, 2019
5. Marketing Analytics – Data Driven Techniques with Microsoft Excel", Wayne L Winston,Wiley Publications, 1st Edition, 2015.
6. Sridhar S, Indumathi J and Hariharan V M, "Python Programming", Pearson, 2023.

BA3039

DATA VISUALIZATION

L T P C
3 0 0 3

Course objective:

- To enable students to effectively visualize and communicate data using a variety of tools and techniques, empowering them to convey insights in a visually compelling and influential manner.

UNIT I DATA VISUALIZATION –A PRIMER OF BUSINESS INTELLIGENCE BUSINESS 9

Intelligence - Data Visualization Evolution and Characteristics – Importance of Data Visualization – Data Visualization Process - Data Visualization Tools and Software - Data Visualization Techniques – Best Practices in Data Visualization.

UNIT II DATA VISUALIZATION USING TABLEAU – BASICS 9

Introduction to Tableau – Tableau interface & Architecture – Data connections & Data Sources – Preparation of Data – Exploring and analyzing data – Creating basic charts – Apply analytics to a worksheet – Creating Groups and Hierarchies - Mapping -Sharing Insights.

UNIT III DATA VISUALIZATION USING TABLEAU 9

Advanced calculations - Parameters – Special Charts - Creation of Dashboards – Dashboard Actions -Story Boards Preparation - Sharing the work – Profile creation in Tableau Public.

UNIT IV REPORTS & DASHBOARDS USING POWER BI**9**

Power BI introduction – Power BI Architecture & Process – Connecting Power BI with different Data Sources – Power Query for Data transformation- Data Modelling in Power BI – Reports – Visualization types in Power BI – Statics and Live Dashboards- Data Refresh & Security.

UNIT V VISUALIZING THROUGH R , PYTHON & QLIKVIEW**9**

Grammar of Graphics – GGplot and visualizations using R – Advanced visualizations using matplotlib, seaborn and pyplot – Qlikview overview.

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

On completion of this course, students will;

1. Possess proficiency in creatively visualizing data, merging data analysis with artistic expression.
2. Demonstrate the ability to effectively communicate insights and information through engaging visual storytelling using data visualization techniques.
3. Be capable of creating immersive data visualizations that go beyond visuals, incorporating other senses to enhance understanding and engagement.
4. Showcase skills in building interactive data visualizations that enable users to explore and interact with data, facilitating deeper insights and personalized exploration.
5. Have the capability to apply data visualization techniques in unconventional domains, unlocking new perspectives and insights.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		3			2			
CO 2	2	3						
CO 3						2	3	
CO 4		2			3			
CO 5		3		2				

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1. “Storytelling with Data: A Data Visualization Guide for Business Professionals”, ColeNussbaumerKnaflic, Amazon Asia-Pacific Holdings Private Limited, 2015.
2. “Microsoft Power BI Complete Reference: Bring your data to life with the powerful features of Microsoft Power BI”, Devin Knight, Packt Publishing, 2018.
3. “Data Visualization and Exploration with R: A practical guide to using R, R Studio, and Tidyverse for data visualization, exploration, and data science applications”, Eric Pimpler, Amazon Asia-Pacific Holdings Private Limited, 2017.
4. “Practical Tableau”, Ryan Sleeper, O’Reilly Media, 2018
5. “Visualization: Visual representations of data and information”, The Open University, Amazon Asia-Pacific Holdings Private Limited, 2016.

BA3040**BUSINESS INTELLIGENCE, BIG DATA, CLOUD COMPUTING****L T P C****3 0 0 3****OBJECTIVE:**

- To familiarize the students on big data platform, applications on big data using Pig and Hive.

UNIT I BIG DATA FRAMEWORKS**9**

Introduction to Big Data Platform – Challenges of Conventional Systems - Intelligent data analysis – Nature of Data - Analytic Processes and Tools - Analysis vs Reporting. Applications on Big Data Using Pig and Hive – Data processing operators in Pig – Hive services – HiveQL – Querying Data in Hive - fundamentals of HBase and Zookeeper - IBM Info Sphere Big Insights and Streams.

- UNIT II DATA MINING TOOLS, METHODS AND TECHNIQUES 9**
 Data mining, Text mining, Web mining, Spatial mining, Process mining, BI process, Private and Public intelligence, Strategic assessment of implementing BI Data Mining Techniques: Introduction, Statistical Perspective on Data Mining, Statistics-need and algorithms, Naïve Bayes Algorithm, Chi-Square Automatic Interaction-Detectors (CHAID)- Classification and Regression Tree (CART) - Analysis of Unstructured Data.
- UNIT III MODERN INFORMATION TECHNOLOGY AND ITS BUSINESS OPPORTUNITIES 9**
 Business intelligence software, BI on web, Ethical and legal limits, Industrial espionage, modern techniques of crypto analysis, managing and organizing for an effective BI Team.
- UNIT IV CLOUD COMPUTING INTRODUCTION AND APPLICATIONS 9**
 Cloud issues and challenges - Properties - Characteristics - Service models, Deployment models. Cloud resources: Network and API - Virtual and Physical computational resources - Data-storage. Virtualization concepts - Types of Virtualization- Introduction to Various Hypervisors - High Availability (HA)/Disaster Recovery (DR) using Virtualization, Moving VMs, Cloud Computing Applications: Overview on Amazon AWS, Microsoft Azure and Google App Engine.
- UNIT V VISUALIZATION TECHNIQUES 9**
 Predictive Analytics- Simple linear regression- Multiple linear regression- Interpretation of regression coefficients. Visualizations - Visual data analysis techniques- interaction techniques - Systems and applications.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

On completion of the course, students will be able to

- CO1:** State the knowledge on big data platform, applications on big data using Pig and Hive.
- CO2:** Compare insights on data mining tools, methods and techniques.
- CO3:** Demonstrate knowledge on business intelligence software and modern techniques of crypto analysis.
- CO4:** Summarize cloud computing characteristics, challenges and applications.
- CO5:** Develop better understanding on predictive analytics and visual data analysis techniques.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3	2	3	2	2	2	2
CO 2	2	2	3	3	3	1	3	2
CO 3	3	2	3	2	3	2	2	3
CO 4	2	3	2	2	1	3	2	1
CO 5	3	2	3	2	1	2	3	1

Reading List

1. <https://www.fujitsu.com/rs/Images/WhiteBookofBigData.pdf>
2. Julian Ereth, H. Baars, Cloud-Based Business Intelligence and Analytics Applications - Business Value and Feasibility,2015

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1. Jaiwei Ham and Micheline Kamber, Data Mining concepts and techniques, Kauffmann Publishers, 2006
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3. Colleen Mccue, "Data Mining and Predictive Analysis: Intelligence Gathering and Crime Analysis", Elsevier, 2nd Edition, 2015.
4. Michael Berthold, David J. Hand, "Intelligent Data Analysis", Springer, 2nd Edition, 2007.
5. Frank J Ohlhorst, "Big Data Analytics: Turning Big Data into Big Money", Wiley and SAS Business Series, 2013.

BA3041

BLOCK CHAIN TECHNOLOGY

**L T P C
3 0 0 3**

OBJECTIVE:

- To acquire knowledge of various techniques and various algorithms used in Blockchain.

UNIT I INTRODUCTION 9

Introduction to Distributed Databases, Understanding Two, General Problems in Distributed Systems, Byzantine General Problem and Fault Tolerance, Overview of Hadoop Distributed File System, Distributed Hash Table and its Applications, ASIC Resistance and its Significance, Turing Completeness in Distributed Systems , Cryptography Basics: Hash Functions, Digital Signatures (ECDSA), Memory Hard Algorithms, Zero Knowledge Proofs.

UNIT II BLOCKCHAIN & APPLICATIONS 9

Introduction to Blockchain Technology, Gartner's Hype Curve and Evolution of Blockchain, Genesis and Need for Blockchain , Key Characteristics and Structure of Blockchain, Different Types of Blockchains and Network Models, Mining and Consensus Mechanisms in Blockchain, Understanding the Bitcoin Whitepaper , Components of a Block and Forks (Soft & Hard Forks), Unspent Transaction Outputs (UTXOs) and Various Bitcoin Forks, Wallets, Transactions, and Public/Private Keys, Blockchain Applications: Internet of Things, Medical Record Management, Domain Name Service, and Future Implications of Blockchain.

UNIT III CRYPTOCURRENCY 9

Historical Background of Cryptocurrencies, Distributed Ledger Technology and its Role, Bitcoin Protocols: Mining Strategy and Rewards, Ethereum- Construction, DAO, Smart Contracts, GHOST Protocol, Vulnerabilities, Attacks, and Sidechains in Cryptocurrencies, Namecoin and its Significance. Cryptocurrency Regulation: Stakeholders, Origins of Bitcoin, Legal Aspects, Cryptocurrency Exchanges, Black Market, and Global Economy.

UNIT IV ETHEREUM 9

Introduction to Ethereum and its Importance, Ethereum Foundation and Whitepaper ,Functioning of Ethereum Network , Ethereum Virtual Machine (EVM) and its Features, Types of Transactions in Ethereum , Mining and Consensus Mechanisms in Ethereum , Understanding Smart Contracts and their Role in Ethereum.

UNIT V HYPERLEDGER FABRIC 9

Introduction to Hyperledger Framework, Hyperledger Fabric and its Unique Features, Comparison between Fabric and Other ,Blockchain Technologies, Architecture of Hyperledger Fabric , Components and Advantages of Hyperledger Fabric Blockchain.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

Upon successful completion of this course, students will be able to:

- CO1:** Articulate the significance and fundamental principles of Blockchain technology.
- CO2:** Identify and relate key features, diverse platform types, and programming languages used in Blockchain technology, leading to a comprehensive understanding of cryptocurrency concepts.
- CO3:** Analyze and solve complex problems to gain deeper insights into cryptocurrency concepts.

- CO4:** Explain the fundamental design principles that govern Ethereum, a widely used Blockchain platform.
- CO5:** Develop a comprehensive understanding of the architecture and construct a model of Hyperledger Fabric, a prominent Blockchain framework.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3	2	3	2	2	2	3
CO 2	2	3	2	2	2	3	3	3
CO 3	3	2	3	3	3	3	2	2
CO 4	3	2	3	3	3	1	1	1
CO 5	2	3	3	2	2	3	1	2

Reading List

1. <http://book.itcp.ru/depository/blockchain/blockchain-by-melanie-swan.pdf>
2. <https://www.blockchainexpert.uk/book/blockchain-book.pdf>
3. Sheikh Mohammad Idrees, Exploring the Blockchain Technology: Issues, Applications and Research Potential, 2021

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1. Laurence, T. (2023). Blockchain for dummies. John Wiley & Sons Imran Bashir, Mastering Blockchain, Packt Publishing, March 2017
2. Debajani Mohanty, BlockChain: From Concept to Execution, BPB Publications, 2nd edition, 2018
3. Artemis Caro, Blockchain: Bitcoin, Ethereum & Blockchain: The Beginners Guide to Understanding the Technology Behind Bitcoin & Cryptocurrency, 2017
4. Andreas M. Antonopoulos, Gavin Wood, Mastering Ethereum: Building Smart Contracts and DApps, O'REILLY, 2018
5. Nitin Gaur, Luc Desrosiers, Venkatraman Ramakrishna, Petr Novotny, Dr. Salman A. Baset and Anthony O'Dowd, Hands-on Blockchain with Hyperledger, Packt Publishing, 2018
6. Arvind Narayanan, Joseph Bonneau, Edward Felten, Andrew Miller, Steven Goldfeder, "Bitcoin and Cryptocurrency Technologies", Princeton University Press, 2016

BA3042

DATA MINING FOR BUSINESS INTELLIGENCE

**L T P C
3 0 0 3**

OBJECTIVE:

- This course helps students learn data mining techniques and how to apply them practically.

UNIT I INTRODUCTION

9

Data mining, Text mining, Web mining, Spatial mining, Process mining, Data ware house and datamarts.

UNIT II DATA MINING PROCESS

9

Datamining process – KDD, CRISP-DM, SEMMA and Domain-Specific, Classification and Prediction performance measures -RSME, MAD, MAP, MAPE, Confusion matrix, Receiver Operating Characteristic curve & AUC; Validation Techniques - hold-out, k-fold crossvalidation, LOOCV, random subsampling, and bootstrapping.

UNIT III PREDICTION TECHNIQUES**9**

Data visualization, Time series – ARIMA, Winter Holts, Vector Autoregressive analysis, Multivariate regression analysis.

UNIT IV CLASSIFICATION AND CLUSTERING TECHNIQUES**9**

Classification- Decision trees, k nearest neighbour, Logistic regression, Discriminant analysis; Clustering; Market basket analysis;

UNIT V MACHINE LEARNING AND AI**9**

Genetic algorithms, Neural network, Fuzzy logic, Support Vector Machine, Optimization techniques – Ant Colony, Particle Swarm, DEA

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

1. Apply data mining techniques to analyze complex datasets and discover meaningful patterns and trends.
2. Select the appropriate data mining processes for specific tasks based on their requirements and challenges.
3. Evaluate the performance of data mining models using relevant evaluation measures to assess their accuracy and effectiveness.
4. Use prediction techniques to make accurate forecasts and predictions in different domains.
5. Apply classification techniques to accurately categorize and classify data, supporting decision-making processes

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3	2	2	2	2	2	2
CO 2	3	3	2	2	2	2	3	3
CO 3	3	3	2	1	1	1	1	3
CO 4	2	3	2	1	1	1	2	3
CO 5	3	2	1	1	1	1	3	3

BA3043**MULTIVARIATE DATA ANALYSIS****L T P C
3 0 0 3****OBJECTIVES:**

- Students could use advanced techniques to conduct thorough and insightful analysis, and interpret the results correctly with detailed and useful information for business and social problems.

UNIT I INTRODUCTION**9**

Introduction – Basic concepts –Simpson’s Paradox - Uni-variate, Bi-variate and Multi-variate techniques – Types of multivariate techniques – Classification of multivariate techniques – Guidelines for multivariate analysis and interpretation – Approaches to multivariate model building.

UNIT II PREPARING FOR MULTIVARIATE ANALYSIS**9**

Conceptualization of research problem – Identification of technique - Examination of variables and data – Measurement of variables and collection of data – Measurement of errors – Statistical significance of errors. Missing data – Approaches for dealing with missing data – Testing the assumptions of multivariate analysis – Incorporating non-metric data with dummy variables.

UNIT III MULTIPLE LINEAR REGRESSION ANALYSIS, FACTOR ANALYSIS 9

Multiple Linear Regression Analysis – Introduction – Basic concepts – Multiple linear regression model – Least square estimation – Inferences from the estimated regression function – Validation of the model. Factor Analysis: Definition – objective – Approaches to factor analysis – methods of estimation – Factor rotation – Factor scores - Sum of variance explained – interpretation of results. Cluster Analysis – Objectives-Assumptions-Deriving clusters-assessing fit- interpretation and validation.

UNIT IV LATENT VARIABLE TECHNIQUES 9

Confirmatory Factor Analysis, Structural equation modelling, Mediation models, Moderation models, Conditional processes, longitudinal studies, latent growth model, Bayesian inference

UNIT V ADVANCED MULTIVARIATE TECHNIQUES 9

Multiple Discriminant Analysis, Logistic Regression, ANOVA and MANOVA, Conjoint Analysis, multidimensional scaling, canonical correlation.

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

CO1 Demonstrate understanding of the concepts and methods; know the exact scopes and possible limitations of each method; and show capability of using multivariate techniques to provide constructive guidance in decision making.

CO2 Understand and prepare data for the application of sophisticated multi variate techniques.

CO3 Understand, Apply and evaluate multiple regression, factor and cluster analysis.

CO4 Understand, Apply and evaluate latent variable techniques like SEM, CFA.

CO5 Understand, Apply and evaluate advanced multivariate techniques.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3		2				3	
CO 2	3	3					3	3
CO 3	2		3					3
CO 4		3			2		3	
CO 5	3		3					3

REFERENCES:

1. Joseph F Hair, Barry J Babin, Rolph E Anderson, & William C. Black, Multivariate Data Analysis, Pearson Education, 8th edition, 2018.
2. Barbara G. Tabachnick, Linda S.Fidell, Using Multivariate Statistics, 6th Edition, Pearson International Edition, 2013.
3. Richard A Johnson and Dean W.Wichern, Applied Multivariate Statistical Analysis, Prentice Hall, 2019.
4. Neil H Spencer, Essentials of Multivariate Data Analysis, CRC Press, 2013.
5. Francois Husson, Sebastien Le, Jerome Pagles, Exploratory Multivariate Analysis by Examples using R , 2nd edition, Chapman & Hall/CRC Computer Science & Data Analysis, 2017.
6. Richard A Johnson and Dean W. Wichern, Applied Multivariate Statistical Analysis, 6th Edition, 2015.
7. Trevor F Cox, Introduction to Multivariate Data Analysis, 2009, Hodder Education

OBJECTIVE:

- To learn the fundamental principles and practices of managing projects.

UNIT I INTRODUCTION TO PROJECT MANAGEMENT 9

Project Management – Definition –Goal - Lifecycles.Project Environments.Project Manager – Roles- Responsibilities and Selection.Definition and examples of projects, Key features of projects, Typical project problems, Human issues in Projects, Project identification and screening: (Brainstorming, Strength, and weaknesses in the system, environmental opportunities and threats, Identification and screening) – Project Appraisal and Selection

UNIT II SCOPE AND TIME MANAGEMENT 9

Scope Management – Defining the Project – SOW - WBS and PBS – Time Management – Network Diagram – Forward Pass and Backward Pass Critical path – PERT and CPM - AOA and AON methods – tools for Project Network – Estimation Techniques

UNIT III RESOURCE AND COST MANAGEMENT 9

Scheduling Resources – Resource Allocation methods - Reducing Project duration: Project Crashing – resource-leveling methods - Simulation for resource allocation.Goldratt’s Critical Chain- Cost Management – Earned Value Method.

UNIT IV PROJECT ORGANISATION, CONFLICT AND MANAGEMENT 9

Project Organization Structure,- Formal Organisation Structure – Organisation Design – Types of project organizations. Culture - Conflict – Origin & Consequences.Project Teams.Managing conflict – Team methods for resolving conflict.Risk identification: types of risk, risk checklists-Risk prioritization -Risk management tactics, Including risk avoidance, risk transfer, risk reduction, risk mitigation and contingency planning

UNIT V PERFORMANCE MANAGEMENT 9

Project Integration - Progress and Performance measurement and evaluation – Project monitoring information system, developing a status report and other control issues - Project audit and closure – audit process, project closure, team, team member and project manager evaluations - International Projects – environmental factors, cross-cultural considerations, selection and training for international projects - Future likely trends in Project management

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

On completion of the course, students will be able to

- Relate to the roles and responsibilities of a project manager, and identify , screen and appraise projects
- Define project elements, develop plan for projects and estimate project completion.
- Understand, apply techniques to Schedule and allocate resources to projects and estimate completion
- Understand, Compare and Choose organization for projects, resolve conflicts and mitigate risks in projects
- Understand project integration, analyze project performance and appraise international projects

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		1	1	1	2	3	1	1
CO 2	3	3	1	1		3	1	1
CO 3	3	3	1	1		3	1	1
CO 4		2	1	1	3	3	1	1
CO 5	3	2	1	1	3	3	1	1
Ave.	1.8	2.2	1	1	1.6	3	1	1

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1. Joseph Heagney, Fundamentals of Project Management, 5th Edition, Amacom, 2011
2. Judy Payne, Steve Simister, Ellen J. Roden, Managing Knowledge in Project Environments, Routledge, 2019
3. International Journal of Project Management, Elsevier
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1. John M. Nicholas and Herman Steyn, Project Management for Engineering, Business and Technology, Routledge, 4th Edition, 2012.
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3. Jack R. Meredith, Scott M. Shafer, Samuel J. Mantel Jr., Margaret M. Sutton, Project Management in Practice, Wiley, 7th Edition, 2020.
4. Narendra Singh (2019), Project management & control, first edition, Himalaya publishers.
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6. Thomas Mochal, Jeff Mochal, (2011), Lessons in Project Management, 2nd edition, Apress.

BA3045

TOTAL QUALITY MANAGEMENT

L T P C
3 0 0 3

OBJECTIVE:

- To learn the various principles and practices of Quality Management

UNIT I INTRODUCTION

9

Introduction - Need for quality - Evolution of quality - Definition of quality. Concept of Quality –different perspectives. Concept of total Quality – Design, inputs, process and output - TQM framework, benefits, awareness and obstacles. Quality – vision, mission and policy statements. Customer Focus – customer perception - customer retention. Dimensions of product and service quality. Cost of quality.

UNIT II QUALITY MANAGEMENT PHILOSOPHIES AND PRICIPLES

9

Overview of the contributions of Quality Gurus - Crosby, Deming, Masaaki Imai, Feigenbaum, Ishikawa, Juran, Oakland, Shigeo Shingo, and Taguchi. Concepts of Quality circle, Japanese 5S principles and 8D methodology.

UNIT III STATISTICAL PROCESS CONTROL

9

Statistical Process Control (SPC) – Meaning, Significance. construction of control charts for variables and attributes. Process capability – meaning, significance and measurement. Six sigma- concepts of process capability. Reliability concepts – definitions, reliability in series and parallel, product life characteristics curve. Total productive maintenance (TMP), Terotechnology. Business process Improvement (BPI) – principles, applications, reengineering process, benefits and limitations.

UNIT IV QUALITY TOOLS AND TECHNIQUES 9

Quality Tools - The seven traditional tools of quality, New management tools. Six-sigma, Bench marking, Poka-yoke, Failure Mode Effect Analysis (FMEA) – reliability, failure rate, FMEA stages, design, process and documentation. Quality Function Deployment (QFD) – , Voice of customer, information organization, House of quality (HOQ), building a HOQ, QFD process.. Taguchi - quality loss function, parameter and tolerance design, signal to noise ratio.

UNIT V QUALITY MANAGEMENT SYSTEMS 9

Introduction Quality management systems – IS/ISO 9004:2000 – Quality System –Elements, Documentation- guidelines for performance improvements. Quality Audits - QS 9000 – ISO 14000 –Concepts. TQM -culture, framework, benefits, awareness and obstacles. Employee involvement – Motivation, empowerment, Team and Teamwork, Recognition and Reward, Performance appraisal. Supplier - Selection, Partnering, Supplier Rating.

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

On completion of the course, students will be able to

- Define Total Quality, Understand the evolution of Quality and prioritize customers' requirements
- Explain, analyze and adapt the principles and philosophies of quality management
- Illustrate and apply statistical process control, process capability and reliability concepts to enhance quality and build a TPM system.
- Understand and apply the different quality tools and construct house of quality Matrix by mapping customers and technical requirements
- Understand, examine and devise quality management systems and evaluate and select suppliers

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		1		1	2	3		2
CO 2		1	2	1	2	3		2
CO 3	3	2		1		3		2
CO 4	2	3		1		3		2
CO 5		3	2	1	3	3		2
Ave.	1	2	0.8	1	1.4	3		2

READING LIST:

1. The TQM Journal, Emerald Insight
2. International Journal of Quality, & Reliability Management, Emerald Publishing
3. Indian standard – quality management systems – Guidelines for performance improvement (Fifth Revision), Bureau of Indian standards, New Delhi.

REFERENCES :

1. Besterfield Dale H., Besterfield Carol, Besterfield Glen H., Besterfield Mary, Urdhwareshe Hemant, Urdhwareshe Rashmi, Total Quality Management, Pearson Education, 2018.
2. Shridhara Bhat K, Total Quality Management – Text and Cases, Himalaya Publishing House, 2010
3. Poornima M. Charantimath, Total Quality Management, Pearson Education, Second Edition, 2011.
4. Douglas C. Montgomery, Introduction to Statistical Quality Control, 2008.
5. Panneerselvam. R., Sivasankaran. P, Quality Management, PHI Learning, 2014

OBJECTIVE :

- To learn the need and importance of logistics in product flow.

UNIT I INTRODUCTION 9

Definition and Scope of Logistics – Functions & Objectives – Customer Value Chain – Service Phases and attributes – Value added logistics services – Role of logistics in Competitive strategy – Customer Service - Functions of Logistics management – principles – Logistics Network – Integrated Logistics system.

UNIT II DISTRIBUTION CHANNELS AND OUTSOURCING LOGISTICS 9

Distribution channel structure - channel members, channel strategy, role of logistics and support in distribution channels. Logistics requirements of channel members. Logistics outsourcing – catalysts, benefits, value proposition. 3PL, 4PL, 5PL, 6PL; Selection of service provider.

UNIT III TRANSPORTATION AND PACKAGING 9

Transportation System – Evolution, Infrastructure and Networks. Freight Management – Vehicle Routing – Containerization. Modal Characteristics, Inter-modal Operators and Transport Economies. International Logistics -objectives, importance in global economy, Characteristics of global supply chains, Incoterms. Packaging- Design considerations, Material and Cost. Packaging as Unitisation. Consumer and Industrial Packaging.

UNIT IV PERFORMANCE MEASUREMENT AND COSTS 9

Performance Measurement – Need, System, Levels and Dimensions. Internal and External Performance Measurement. Logistics Audit. Total Logistics Cost – Concept, Accounting Methods. Cost – Identification, Time Frame and Formatting.

UNIT V CURRENT TRENDS 9

Logistics Information Systems – Need, Characteristics and Design. E-Logistics – Structure and Operation. Logistics Resource Management eLRM. Automatic Identification Technologies. Reverse Logistics – Scope, design and as a competitive tool. Global Logistics – Operational and Strategic Issues, ocean and air transportation. Strategic logistics planning. Green Logistics

TOTAL: 45 PERIODS**COURSE OUTCOMES :**

On completion of the course, students will be able to

- Understand, apply and assess the concepts of evolution and functions of logistics management.
- Relate, apply and evaluate the basic principles of logistics, warehousing and material handling
- Illustrate, examine and improve the process of transportation, distribution, packaging etc
- Classify, appraise and assess the knowledge on integrated logistics and linguistic information system.
- Find, Classify, Appraise on the various elements of logistics cost and need for integration in logistics facilities.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		1	1	1		3		
CO 2		3	1	1		3		1
CO 3	3	2	1	1		3		1
CO 4	2	3	1	1		3		
CO 5		2	2	1		3		2
Ave.	1	2.2	1.2	1		3		0.8

READING LIST

1. Journal of Logistics Management, ingenta.
2. Periodicals of Engineering and Natural Sciences
3. The International Journal of Logistics Management, Emerald.
4. Advances in Logistics and Supply Chain Management, Springer

REFERENCES

1. Sople Vinod V, Logistics Management – The Supply Chain Imperative, Pearson Education, 3rd Edition, 2012
2. Bowersox Donald J, Logistics Management – The Integrated Supply Chain Process, Tata McGraw Hill, 2010
3. Pierre David, International Logistics, Biztantra, 2003.
4. Hessel Visser , Logistics Principles and Practice, Routledge, 1st Edition 2007.
5. Saikumari V. and Purushothaman S, Logistics and Supply Chain Management by Sultan Chand.

BA3047

MATERIALS MANAGEMENT

L T P C

3 0 0 3

OBJECTIVE

- To understand why materials management should be considered for profit in operations

UNIT I INTRODUCTION

9

Introduction to Materials Management, Operating environment-Production planning system - manufacturing planning and control system-manufacturing resource planning-enterprise resource planning-making the production plan - Master scheduling- Developing MPS.

UNIT II MATERIALS PLANNING

9

Materials requirements planning-bill of materials- planning process-manufacturing resource planning-capacity management-Capacity Requirements Planning (CRP) - scheduling orders-production activity control-Scheduling – Load Leveling- Theory of Constraints- Control.

UNIT III INVENTORY MANAGEMENT

9

Aggregate Inventory Management – Item inventory Management – Flow of materials- Objectives of Inventory Management – Costs – ABC Analysis –Inventory Policy Decisions– objectives-control -Retail Discounting Model, Newsvendor Model; -Quantity discount models. Probabilistic inventory models.

UNIT IV PURCHASING MANAGEMENT

9

Establishing specifications-selecting suppliers-price determination-forward buying-mixed buying strategy-price forecasting-buying seasonal commodities-purchasing under uncertainty-demand management-price forecasting-purchasing under uncertainty-purchasing of capital equipment-international purchasing

UNIT V WAREHOUSE MANAGEMENT**9**

Warehousing functions – types - Stores management-stores systems and procedures-incoming materials control-stores accounting and stock verification-Obsolete, surplus and scrap-value analysis-material handling-transportation and traffic management -operational efficiency-productivity-cost effectiveness-performance measurement

TOTAL: 45 PERIODS**COURSE OUTCOMES :**

On completion of the course, students will be able to

- Understand and apply and the basics of materials management and develop master production schedule
- Understand, apply and assess the requirement analysis for material planning
- Understand, apply, and evaluate models of inventory management
- Understand and apply purchasing practices and select the right supplier
- Understand, analyze and build warehouse management systems

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	2		1		3		
CO 2	3		2	1		3		
CO 3		3		1		3		
CO 4	2		3	1		3		
CO 5	3	2		1		3		
Ave.	2.2	1.4	1	1		3		

READING LIST

1. International Journal of Purchasing and Materials Management -Science gate
2. Handbook of materials management – By Gopalakrishnan

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1. J.R.Tony Arnold, Stephen N. Chapman, Lloyd M. Clive, Materials Management, Pearson, 2012.
2. P. Gopalakrishnan, Purchasing and Materials Management, McGraw Hill Education, 2017
3. A.K.Chitale and R.C.Gupta, Materials Management, Text and Cases, PHI Learning, 3rd Edition, 2014
4. A.K.Datta, Materials Management, Procedure, Text and Cases, PHI Learning, 2nd Edition, 2008
5. Saravanavel. P and Kavitha G, (2019) Materials Management, 1st edition, Margham Publications

BA3048**SERVICES OPERATIONS MANAGEMENT****L T P C
3 0 0 3****OBJECTIVE:**

- To help understand how service performance can be improved by studying services operations management

UNIT I**INTRODUCTION****9**

Services – Importance, role in economy, service sector – nature, growth. Nature of services distinctive characteristics, Service Package, Service classification, service-dominant logic, open-systems view. Service Strategy –Strategic service vision, competitive environment, generic strategies, winning customers; Role of information technology; stages in service firm competitiveness.

UNIT II SERVICE DESIGN 9

New Service Development – Design elements – Service Blue-printing - process structure – generic approaches. Service Encounter – triad, creating service orientation, service profit chain; Front-office Back-office Interface– service decoupling. Technology in services – self-service, automation, e-commerce, e-business, technology innovations.

UNIT III SERVICE QUALITY 9

Service Quality- Dimensions, Service Quality Gap Model; Measuring Service Quality – SERVQUAL, Walk-through Audit, Quality service by design , Service Recovery, Service Guarantees -quality tools- benchmarking - Quality improvement programs. Process Improvement –productivity improvement - DEA

UNIT IV SERVICE FACILITY 9

Supporting facility -Service scapes, Facility design – nature, objectives, process analysis, Service facility layout. Service Facility Location – considerations, facility location techniques – metropolitan metric, Euclidean, centre of gravity, retail outlet location, location set covering problem. Vehicle routing and Scheduling.

UNIT V MANAGING CAPACITY AND DEMAND 9

Managing Demand – strategies; Managing capacity – basic strategies, supply management tactics, operations planning and control; Yield management; Inventory Management in Services– Retail Discounting Model, Newsvendor Model; Managing Waiting Lines –Queuing systems, psychology of waiting; Managing for growth- expansion strategies, franchising , globalization.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

On completion of the course, students will be able to

- CO1: Understand the nature of service operations, distinguish between goods and services, compare the difference service classification system develop service strategy
- CO2: Understand and apply the new service development process, design and improve services by applying service blueprinting and service decoupling.
- CO3: Understand, apply and assess the quality in service design and delivery
- CO4: Understand, Apply and Adapt models to design service facility, determine facility location and layout and Route and schedule vehicles
- CO5: Understand and apply demand and capacity management in services, Illustrate and apply yield management, manage inventory and queuing system and grow and sustain service business

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		2		1	2	3		
CO 2	1	3	2	1	1	3	3	2
CO 3	2	3	2	1	1	3		
CO 4	3	3		1	1	3		2
CO 5	3	3	2	1	1	3	2	2
Ave.	1.8	2.8	1.2	1	1.2	3	1	1.2

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REFERENCES :

1. James A. Fitzsimmons, Mona J, Fitzsimmons, Sanjeev Bordoloi, Service Management – Operations, Strategy, Information Technology, McGraw-Hill Education – 8th Edition 2018.

2. Richard D. Metters, Successful Service Operations Management, Cengage Learning, 2nd Edition, 2012.
3. Cengiz Haksever and Barry Render, Service and Operations Management, World Scientific, 2017.
4. Robert Johnston, Graham Clark Michael Shulver, Service Operations Management: Improving Service Delivery, Pearson Education, 4th Edition, 2017.
5. Bill Hollins and Sadie Shinkins, Managing Service Operations, Sage, 2006.

BA3049

SUPPLY CHAIN MANAGEMENT

**L T P C
3 0 0 3**

OBJECTIVE:

- To help understand the importance of and major decisions in supply chain management for gaining competitive advantage.

UNIT I INTRODUCTION 9

Supply Chain – Fundamentals, Evolution, Role in Economy, Importance, Decision Phases, Enablers & Drivers of Supply Chain Performance; Supply chain strategy; Supply Chain Performance Measures.

UNIT II STRATEGIC SOURCING 9

Outsourcing – Make Vs buy - Identifying core processes - Market Vs Hierarchy - Make Vs buy continuum -Sourcing strategy - Supplier Selection and Contract Negotiation. Creating a world class supply base- Supplier Development - World Wide Sourcing.

UNIT II SUPPLY CHAIN NETWORK 9

Distribution Network Design – Role in supply chain, Influencing factors, design options, online sales and distribution network, Distribution Strategies; Network Design in supply chain – Role, influencing factors, framework for network design, Impact of uncertainty on Network Design.

UNIT III PLANNING DEMAND, INVENTORY AND SUPPLY 9

Managing supply chain cycle inventory and safety inventory - Uncertainty in the supply chain , Analyzing impact of supply chain redesign on the inventory, Risk Pooling, Managing inventory for short life-cycle products, multiple item -multiple location inventory management; Pricing and Revenue Management.

UNIT V SUPPLY CHAIN INNOVATIONS 9

Supply Chain Integration, SC process restructuring, Agile Supply Chains, Green Supply Chain, Reverse Supply chain; Supply chain technology trends – AI, Advanced analytics, Internet of Things, Intelligent things, conversational systems, robotic process automation, immersive technologies, Blockchain.

TOTAL: 45 PERIODS

COURSE OUTCOME:

On completion of the course, students will be able to

- CO1: Understanding of supply chain fundamentals, Illustrating and analyzing supply chains from strategic perspective and assess supply chain performance
- CO2: Understanding the issues in sourcing decision and analyse and select suppliers
- CO3: Understand and analyse issues related to material flow and design supply chain networks to enhance supply chain performance
- CO4: Understand and analyse the nature of demand and supply and develop inventory system
- CO5: Relate to innovations in supply chain, analyze and design sustainable supply chains.

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		2		1	2	3		
CO 2		3	2	1	1	3	3	2
CO 3	3	3	2	1	1	3		
CO 4	3	3		1	1	3		2
CO 5	2	3	2	1	1	3	2	2
Ave.	1.6	2.8	1.2	1	1.2	3	1	1.2

READING LIST

1. Supply chain management and advanced planning, Springer.
2. Supply chain management: An international journal, Emerald.

REFERENCES:

1. Sunil Chopra, Peter Meindl and DharamVirKalra, Supply Chain Management-Strategy Planning and Operation, Pearson Education, Sixth Edition, 2016.
2. Janat Shah, Supply Chain Management – Text and Cases, Pearson Education, 2009
3. Ballou Ronald H, Business Logistics and Supply Chain Management, Pearson Education, 5th Edition, 2007.
4. David Simchi-Levi, Philip Kaminsky, Edith Simchi-Levi, Designing and Managing the SupplyChain: Concepts, Strategies, and Cases, Tata McGraw-Hill, 2005.
5. Pierre David, International Logistics, Biztantra, 2011.

BA3050

PRODUCT DESIGN

**L T P C
3 0 0 3**

OBJECTIVE:

- To understand the application of structured methods to develop a product

UNIT I PRODUCT DESIGN & DEVELOPMENT

9

Product design & development - characteristics, duration and cost, challenges; Development Process - Generic Process, Concept development, Adapting to product types; Product Planning - Process, Understanding customer need, Product Specification; Concept Generation Evaluation - decay curve, cost expenditure curve; Technology Life Cycle; Disruptive Technologies.

UNIT II PRODUCT CONCEPT

9

Concept Selection – Importance, Methodology, concept Screening, Concept Scoring, Concept Testing; Product Architecture - Definition, Modularity, implication, Establishment, Delayed Differentiation, Platform Planning.

UNIT III PRODUCT DATA MANAGEMENT

9

PDM - concept and benefits, functions, Product data and workflow, Product reliability, CIM data, Architecture of PDM systems, Product data interchange, Portal integration, PDM acquisition and implementation; Product Life Cycle management - strategy, Change management for PLM.

UNIT IV DESIGN TOOLS

9

Design Approaches - Industrial Design, Design for Manufacturing, Value Engineering, Ergonomics, Robust Design, Design for Excellence; Collaborative Product development-Prototyping, failure rate curve, product use testing-Product development economics, scoring model, financial analysis.

UNIT V PATENTS

9

Intellectual Property and Patents -Definitions, Patent Searches, Application, Patent Ownership and Transfer, Patent Infringement, New Developments and International Patents.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

On completion of the course, students will be able to

CO1: Understand, design and develop the new products and services

CO2: Understanding, apply and adapt product concept to build products

CO3: Define, Identify and Assess product data and manage the product life cycle

CO4: understand and apply design tools and evaluate product performance

CO5: Understand the concepts of intellectual property, analyze and construct product design for patenting

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		1	2	1	1	3	3	2
CO 2		1		1	1	3	1	
CO 3	2	2		1	1	3	1	
CO 4		3	2	1	1	3	1	
CO 5		2	3	1	1	3	3	2
Ave.	0.4	1.8	1.4	1	1	3	2	0.8

READING LIST:

1. <https://www.ijert.org/research/product-design-and-development-phases-and-approach-IJERTV6IS070136.pdf>
2. <https://dergipark.org.tr/tr/download/article-file/53174>
3. <https://innovation-entrepreneurship.springeropen.com/articles/10.1186/s13731-016-0055-7>

REFERENCES :

1. Karl T. Ulrich, Steven D. Eppinger, Anita Goyal Product Design and Development, McGraw Hill Education, 4th Edition, 2009.
2. Kenneth B.Kahn, New Product Planning, Sage, 2010.
3. A.K. Chitale and R.C. Gupta, Product Design and Manufacturing, PHI, 2011.
4. Deborah E. Bouchoux, Intellectual Property Rights, Delmar, Cengage Learning, 2005.
5. Michael Grieves, Product Life Cycle Management, Tata McGraw Hill , 2006.

BA3051

SUPPLY CHAIN ANALYTICS

L T P C
3 0 0 3

OBJECTIVES:

- To understand and apply the advanced quantitative models and methods in logistics and supply chain management and the latest developments in the field.

UNIT I INTRODUCTION

9

Introduction to analytics – descriptive, predictive and prescriptive analytics, Data Driven Supply Chains – Basics, transforming supply chains, Barriers to implementation, Road Map.

UNIT II WAREHOUSING DECISIONS

9

Mathematical Programming Models - P-Median Methods - Guided LP Approach - Balmer – Wolfe Method, Greedy Drop Heuristics, Dynamic Location Models, Space Determination and Layout Methods

UNIT III INVENTORY MANAGEMENT

9

Inventory aggregation Models, Dynamic Lot sizing Methods, Multi-Echelon Inventory models, Aggregate Inventory system and LIMIT, Risk Analysis in Supply Chain - Measuring transit risks, supply risks, delivering risks, Risk pooling strategies.

UNIT IV TRANSPORTATION NETWORK MODELS**9**

Notion of Graphs, Minimal Spanning Tree, Shortest Path Algorithms, Maximal Flow Problems, Multistage Transshipment and Transportation Problems, Set covering and Set Partitioning Problems, Traveling Salesman Algorithms, Advanced Vehicle Routing Problem Heuristics, Scheduling Algorithms-Deficit function Approach and Linking Algorithms

UNIT V MULTI-CRITERIA DECISION MAKING MODELS**9**

Analytic Hierarchy Process(AHP), Data Envelopment Analysis (DEA), Fuzzy Logic and Techniques, the analytical network process (ANP), TOPSIS-Application in SCM

TOTAL: 45 PERIODS**COURSE OUTCOMES:**

On completion of the course, students will be able to

CO1: Understand, apply and analyse fundamentals of supply chain analytics

CO2: Understand, apply and design warehouse models to enhance supply chain performance.

CO3: Understand, analyse and adapt models in devising an inventory management system

CO4: Appreciate, apply and devise network models for transportation.

CO5: Understand and apply multi-criteria decision models in developing supply chain applications

CO PO MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	1			1	1	3		
CO 2	3	3		1	1	3		
CO 3	3	3		1	1	3		
CO 4	3	3		1	1	3		
CO 5	3	3		1	1	3		
Ave.	2.6	2.4		1	1	3		

READING LIST:

1. Journal of Management Analytics – Taylor and Francis Online

REFERENCES :

1. T. A. S. Vijayaraghavan, Supply Chain Analytics, Wiley, 2021
2. Kurt Y. Liu, Supply Chain Analytics, Springer, 2022
3. Jeremy Shapiro, Modeling the Supply Chain, Cengage Learning, 2nd Edition, 2006
4. Michael Watson, Sara Lewis, Peter Cacioppi, Jay Jayaraman, Supply Chain Network Design: Applying Optimization and Analytics to the Global Supply Chain, Pearson Education, 2013.
5. Muthu Mathirajan, Chandrasekharan Rajendran, Sowmya Narayanan Sadagopan, Arunachalam Ravindran, Parasuram Balasubramanian, Analytics in Operations/Supply Chain Management , I.K. International Publishing House Pvt. Ltd., 2016.