COURSE CURRICULUM

(BBA BUSINESS ANALYTICS)

W.E.F: AY 2026–29

ACADEMIC YEAR: 2026–27

Updated on: July 8, 2026

GSFC University

School of Management & Entrepreneurship,
Vigyan Bhavan, P. O. Fertilizer Nagar, Vadodara - 391750, Gujarat, India

VISION

• GSFCU strives to be the best compact boutique institution with a futuristic approach, encouraging student centric culture and sharpened focus on developing industry ready & employable students with all-round development.

MISSION

• Establish an institution, which promotes creativity and innovation.
• Develop unique quality standards for academic excellence and pedagogical innovations.
• Remain agile through learning ecosystem with flexible processes & systems.
• Holistic growth for industry readiness.

No.	Programme Outcomes (POs)	Blooms' Taxonomy Domain	Blooms' Taxonomy Sub Domain
PO1	Demonstrate comprehensive knowledge of core business disciplines and apply modern management and analytics tools to address domain-specific business issues.		
PO2	Exhibit effective leadership, professionalism, and team management skills to operate successfully in dynamic and technologically driven VUCA business environments.		
PO3	**PO3**Uphold ethical values, professional integrity, and sustainability principles in business analysis and managerial decision-making.		
PO4	**PO4**Communicate effectively in global business contexts, demonstrating cultural sensitivity and the ability to think globally while acting locally.		
PO5	Evaluate complex business problems by integrating cross-functional perspectives and analytics-driven insights to formulate innovative and holistic solutions..		

No.	Programme Specific Outcomes (PSOs)	Blooms' Taxonomy Domain	Blooms' Taxonomy Sub Domain
PSO1	Apply managerial, analytical, and communication skills, along with information systems knowledge, to support organizational planning and strategic decision-making.		
PSO2	**PSO2**Demonstrate leadership and team management capabilities to respond strategically to challenges in dynamic and technologically driven business environments.		
PSO3	Integrate ethical reasoning, professional conduct, and inclusive practices into business analytics and managerial decisions to promote sustainable and socially responsible outcomes.		
PSO4	Design, evaluate, and improve business processes using analytics frameworks and tools such as Lean, Six Sigma, marketing analytics, financial analytics, and performance metrics to enhance operational efficiency, quality, and customer satisfaction.		

No.	Programme Educational Objectives (PEOs)	Blooms' Taxonomy	Blooms' Taxonomy Sub

		Domain	Domain
PEO1	To demonstrate a commitment to lifelong learning by continuously upgrading students' knowledge, analytical skills, and technological competencies to remain relevant in a dynamic global technologically driven business environment.		
PEO2	To equip graduates with entrepreneurial capabilities to identify business opportunities, design innovative and data-driven solutions, and establish sustainable and socially responsible enterprises.		
PEO3	To nurture research aptitude among graduates, enabling them to apply analytical tools and data-driven approaches for evidence-based managerial decision making.		
PEO4	To develop graduates with strong critical thinking, adaptability, and problem-solving skills to effectively address evolving business, technological and global challenges.		
PEO5	**PEO5**To develop graduates with a strong foundation in business management, analytics, and technological awareness, enabling them to succeed in diverse managerial, analytical, and entrepreneurial roles.		

Definition of Credit:

1 Hr. Lecture (L) per week	1 credit
1 Hr. Tutorial (T) per week	1 credit
2 Hours Practical (P) per week	1 credit
1 Hours Practical (P) per week	0.5 credit

Course code Definitions:

Lecture	L
Tutorial	T
Practical	P
Basic Science Courses	BSC
Engineering Science Courses	ESC
Humanities and Social Sciences including Management courses	HSMC
Professional core courses	PCC
Professional Elective courses	PEC
Open Elective courses	OEC
Laboratory course	LC
Mandatory courses	MC
Non-credit courses	NC
Project	PROJ

About the Programme:

Business analytics is a process of making sense of data that can help companies make informed decisions on the future of business. Business analytics deals with the study, analysis and interpretation of big data of organisations whether, profit making or non-profit making. Business Analytics as a discipline is emerging as an important part of management science. In the Organisation, decision making process is buy and large data-driven. In view of, huge data across functional areas like marketing, finance, Production, Purchase, HR, Logistics. The complexity of data is increasing with the growth of the business and competition in the concerned sector. Therefore, Business analytics is becoming an effective tool in dealing with decision making which is complex in terms of magnitude of data.

BBA BUSINESS ANALYTICS

CREDIT SCHEMES + TEACHING SCHEMES

SYLLABUS

W.E.F: AY 2026–29

CREDIT DISTRIBUTION FOR BBA BUSINESS ANALYTICS PROGRAM

Semester	Core Courses	Ability Enhance- ment Courses	Multi- Discipli- nary Elective course	Value added Courses	Skill Enhance- ment courses	Discipline Specific Elec- tive	Total
I	12	2	2	6		4	26
II	12	2	2	1	4	4	25
III	12	2	0	2	6	8	30
IV	12	2	0	4	2	8	28
V	8	2	0	0	6	12	28
VI	4	2	0	0	6	16	28
TOTAL	**60**	**12**	**4**	**13**	**24**	**52**	**165**
VII	8	0	0	0	6	8	**22**
VIII	0	0	0	0	4	8	**12**
TOTAL	**68**	**12**	**4**	**13**	**34**	**68**	**199**

New Teaching Scheme (BBA Business Analytics):

• **Total Credits**: 165
• Core courses: 60 credits.
• Ability Enhancement Courses: 12credits.
• Multi-Disciplinary Elective Courses: 4 credits.
• Value Added Courses: 13 credits.
• Skill Enhancement Courses: 24 credits.
• Discipline Specific Elective: 52 credits

New Teaching Scheme (BBA Business Analytics – Honours)

• **Total Credits**: 199
• Core courses: 68 credits.
• Ability Enhancement Courses: 12credits.
• Multi-Disciplinary Elective Courses: 4 credits.
• Value Added Courses: 13 credits.
• Skill Enhancement Courses: 34 credits.
• Discipline Specific Elective: 68 credits

Teaching and Examination Scheme

Teaching and Examination Scheme

Academic Session: 2026–27	Program: BBA Business Analytics	Semester: I

Sr. N.	Course Code	Course Name	Course Type	Teaching Scheme (Hours/Week)			Total Credit		Theory			Practical		Total Marks
				L	T	P	T	P	MSE	CEC	ESE	LW	LE/VIVA	
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
1	BBA101	Principles and Practices of Management	CC	3	1	0	4	-	20	40	40	-	-	100
2	BBA102	Financial Accounting	CC	3	1	0	4	-	20	40	40	-	-	100
3	BBA103	Business Statistics and Logic	CC	3	1	0	4	-	20	40	40	-	-	100
4	BBA104	Introduction to Data Science	DSE	3	1	0	4	-	20	40	40	-	-	100
5	MDE101	Indian Knowledge System	MDE	2	0	0	2	-	20	40	40	-	-	100
6	VACC102	Environmental Science and Sustainability	VAC	2	0	0	2	-	20	40	40	-	-	100
7	AECC101	Fundamentals of English	AEC	1	0	1	2	-	20	40	40	-	-	100
8	VACC101	Foundation Course	VAC	0	0	4	4	-	-	-	-	-	-	100
Total							26							

*L-Lecture, T-Tutorial, P-Practical, MSE-Mid Semester Examination, CEC- Continuous Evaluation Component, ESE- End Semester Examination, LW-Lab Work, LE-Lab Exam

Program Coordinator	HoD	Dean

Teaching and Examination Scheme

Academic Session: Even 2026–	Program: BBA Business Analytics	Semester: II

Sr. N.	Course Code	Course Name	Course Type	Teaching Scheme (Hours/Week)			Total Credit		Theory			Practical		Total Marks
				L	T	P	T	P	MSE	CEC	ESE	LW	LE/VIVA	
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
1	BBA201	Human Behaviour and Organization	CC	3	1	0	4	-	20	40	40	-	-	100
2	BBA202	Marketing Management	CC	3	1	0	4	-	20	40	40	-	-	100
3	BBA203	Business Economics	CC	3	1	0	4	-	20	40	40	-	-	100
4	BBA204	Basics of DBMS	DSE	3	1	0	4	-	20	40	40	-	-	100
5	SEC201	Emerging Technologies and application	SEC	2	0	0	2	-	20	40	40	-	-	100
6	MDE201	Media Literacy and Critical Thinking	MDE	1	1	0	2	-	20	40	40	-	-	100
7	AECC201	Communication Skills in English	AECC	2	0	0	2	-	20	40	40	-	-	100
8	VACC201	Tinkering Lab	VAC	0	0	2	1	-	-	50	50	-	-	100
9	BBAI2	INTERNSHIP	SEC	0	0	4	2	-	-	-	-	-	-	100
Total							25							

*L-Lecture, T-Tutorial, P-Practical, MSE-Mid Semester Examination, CEC- Continuous Evaluation Component, ESE- End Semester Examination, LW-Lab Work, LE-Lab Exam

Program Coordinator	HoD	Dean

Teaching and Examination Scheme

Academic Session: 2026–	Program: BBA Business Analytics	Semester: III

Sr. N.	Course Code	Course Name	Course Type	Teaching Scheme (Hours/Week)			Total Credit		Theory			Practical		Total Marks
				L	T	P	T	P	MSE	CEC	ESE	LW	LE/VIVA	
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
1	BBA301	Cost and Management Accounting	CC	3	1	0	4	-	20	40	40	-	-	100
2	BBA302	Legal and Ethical issues in business	CC	3	1	0	4	-	20	40	40	-	-	100
3	BBA303	Human Resource Management	CC	3	1	0	4	-	20	40	40	-	-	100
4	BBA304	DBMS – SQL	DSE	3	0	2	4	-	20	40	40	-	-	100
5	BBA305	M S Excel	DSE	3	0	2	4	-	20	40	40	-	-	100
6	SEC301	Management Information System(MIS)	SEC	2	0	4	4	-	20	40	40	-	-	100
7	VACC301	Yoga/Sports/NCC/NSS	VAC	0	0	4	2	-	20	40	40	-	-	100
8	AECC301	Entrepreneurship Development	AECC	2	0	0	2	-	20	40	40	-	-	100
9	BBAI3	Internship	SEC	0	0	4	2		-	-	-	-	-	100
Total							30							

*L-Lecture, T-Tutorial, P-Practical, MSE-Mid Semester Examination, CEC- Continuous Evaluation Component, ESE- End Semester Examination, LW-Lab Work, LE-Lab Exam

Program Coordinator	HoD	Dean

Teaching and Examination Scheme

Academic Session: 2026–	Program: BBA Business Analytics	Semester: IV

Sr. N.	Course Code	Course Name	Course Type	Teaching Scheme (Hours/Week)			Total Credit		Theory			Practical		Total Marks
				L	T	P	T	P	MSE	CEC	ESE	LW	LE/VIVA	
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
1	BBA402	Financial Management	Core	3	1	0	4		20	40	40			100
2	BBA403	Business Research methodology	Core	3	1	0	4		20	40	40			100
3	BBA404	International Business	Core	3	1	0	4		20	40	40			100
4	BBA405	HR Analytics	DSE	3	0	2	4		20	40	40			100
5	BBA406	Marketing & Retail Analytics	DSE	3	0	2	4		20	40	40			100
6	VACC401	Public Health and Management	VACC	2	0	0	2		20	40	40			100
7	AECC401	Envrionmental Science	AECC	1	1	0	2		20	40	40			100
8	SEC401	Design Thinking and Innovation	SEC	1	1	0	2		20	40	40			100
9	BBAI4	REEP Project	VACC	0	0	4	2		20	40	40			100
Total							28							

*L-Lecture, T-Tutorial, P-Practical, MSE-Mid Semester Examination, CEC- Continuous Evaluation Component, ESE- End Semester Examination, LW-Lab Work, LE-Lab Exam

Program Coordinator	HoD	Dean

Teaching and Examination Scheme

Academic Session: 2026–	Program: BBA Business Analytics	Semester: V

Sr. N.	Course Code	Course Name	Course Type	Teaching Scheme (Hours/Week)			Total Credit		Theory			Practical		Total Marks
				L	T	P	T	P	MSE	CEC	ESE	LW	LE/VIVA	
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
1	BBA501	Strategic Management	CC	3	1	0	4	-	20	40	40	-	-	100
2	BBA502	Logistics and Supply Chain Management	CC	3	1	0	4	-	20	40	40	-	-	100
3	BBA503	Web & Social Media Analytics	DSE	3	0	2	4	-	20	40	40	-	-	100
4	BBA504	Python Programming	DSE	3	0	2	4	-	20	40	40	-	-	100
5	BBA505	Data Visualisation - Power BI	DSE	3	0	2	4	-	20	40	40	-	-	100
6	SEC501	capstone Project	SEC	-	-	-	4	-	20	40	40	-	-	100
7	BBAI5	Internship	SEC	0	0	4	2	-	20	40	40	-	-	100
8	AECC501	Indian Constitution	AECC	2	0	0	2	-	20	40	40	-	-	100
Total							28							

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Program Coordinator	HoD	Dean

Teaching and Examination Scheme

Teaching and Examination Scheme

Academic Session: 2026–27	Program: BBA Business Analytics	Semester: VI

Sr. N.	Course Code	Course Name	Course Type	Teaching Scheme (Hours/Week)			Total Credit		Theory			Practical		Total Marks
				L	T	P	T	P	MSE	CEC	ESE	LW	LE/VIV A	
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
1	BBA601	Project Management	CC	3	1	0	4	-	20	40	40	-	-	100
2	BBA602	Introduction to AI and ML	DSE	3	0	2	4	-	20	40	40	-	-	100
3	BBA603	Financial Analytics	DSE	3	0	2	4	-	20	40	40	-	-	100
4	BBA604	Logistics & SCM Analytics	DSE	3	0	2	4	-	20	40	40	-	-	100
5	BBA605	Programming in R	DSE	3	0	2	4	-	20	40	40	-	-	100
6	SEC601	Corporate Governance	SEC	2	0	0	2	-	20	40	40	-	-	100
7	SEC602	Major Project	SEC	-	-	-	4	-	20	40	40	-	-	100
8	AECC601	Disaster Risk Management	AECC	0	0	2	2	-	20	40	40	-	-	100
Total							**28**							

*L-Lecture, T-Tutorial, P-Practical, MSE-Mid Semester Examination, CEC- Continuous Evaluation Component, ESE- End Semester Examination, LW-Lab Work, LE-Lab Exam

Program Coordinator	HoD	Dean

Teaching and Examination Scheme
School of Management & Entrepreneurship

Teaching and Examination Scheme

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Academic Session: 2026–27

Program: BBA Busines Analytics

Semester: VII

Sr. N.	Course Code	Course Name	Course Type	Teaching Scheme (Hours/Week)			Total Credit		Theory			Practical		Total Marks
				L	T	P	T	P	MSE	CEC	ESE	LW	LE/VIVA	
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**	**13**	**14**	**15**
1	BBA701	AI for Business; Diversity, Equity and Inclusion; Digital Ethnography and Online Communities	Core	3	1	0	4	-	20	40	40	-	-	100
2	BBA702	Entrepreneurial Leadership	Core	2	2	0	4	-	20	40	40	-	-	100
3	BBA705	Digital Transformation of Business	DSE	3	1	0	4	-	20	40	40	-	-	100
4	BBA706	Data Visualisaiton Tool – Tableau	DSE	3	1	0	4	-	20	40	40	-	-	100
5	BBA703	Internship	SEC	0	0	4	2	-	-	-	-	50	50	100
6	BBA704	Dissertation work		2	0	0	4	-	20	40	40	-	-	100
7	BBABA701	Big Data Analytics	DSE	4	0	0	4	-	20	40	40	-	-	100
Total							**26**							**700**

Lecture, T-Tutorial, P-Practical, MSE-Mid Semester Examination, CEC- Continuous Evaluation Component, ESE- End Semester Examination, LW-Lab Work, LE-Lab Exam

Program Coordinator	**HoD**	**Dean**

Teaching and Examination Scheme

Academic Session: 2026–27	Program: BBA Business Analytics	Semester: VIII

Sr. N.	Course Code	Course Name	Course Type	Teaching Scheme (Hours/Week)			Total Credit		Theory			Practical		Total Marks
				L	T	P	T	P	MSE	CEC	ESE	LW	LE/VIVA	
01	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**	**13**	**14**	**15**
1	BBA801	Programming C/C++ with	DSE	3	1	0	4	-	20	40	40	-	-	100
2	BBA802	Data Visualisation - Google Studio	DSE	3	1	0	4	-	20	40	40	-	-	100
3	BBA803	Dissertation work	SEC	2	0	0	4	-	20	40	40	-	-	100
Total							**12**							**300**

*L-Lecture, T-Tutorial, P-Practical, MSE-Mid Semester Examination, CEC- Continuous Evaluation Component, ESE- End Semester Examination, LW-Lab Work, LE-Lab Exam

Program Coordinator	HoD	Dean

COURSE CODE BBA101	COURSE NAME Principles and Practices of Management	SEMESTER I

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Tutoria l	Practical	Total Hours	Lecture	Tutoria l	Practical	Total Credit
45	15	0	60	3	1	0	4

Course Prerequisites	Students enrolling in this course should have a basic understanding of business concepts and organizational structures. Familiarity with introductory management principles, basic economics, and an interest in understanding how organizations operate will be beneficial. Strong communication skills and a willingness to engage in class discussions and case studies will help students grasp the practical application of management theories.
Course Category	Core
Course focus	This course focuses on the fundamental concepts, principles, and practices of management within organizations. It covers key areas such as planning, organizing, leading, and controlling, as well as decision-making, strategic management, and organizational behavior. The course emphasizes the application of these principles to real-world business challenges, with a focus on developing managerial skills and understanding the dynamic business environment. Through case studies, discussions, and practical exercises, students will gain a comprehensive understanding of effective management practices.
Rationale	1.To understand the basic concepts, principles, and theories of management. 2. To examine the essential functions of managers. 3.To analyze the impact of globalization, diversity, and ethics on management. 4.To develop skills in strategic planning, decision-making, and leadership.
Course Revision/ Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	To explain the definition, nature, significance, principles, and evolution of management thought, and distinguish management as a science and an art. To describe and apply the functions of management—planning, organizing, staffing, leading, and controlling—in organizational contexts. To analyze ethical issues, corporate social responsibility, and sustainable management practices in modern organizations. To apply decision-making models, planning techniques, organizational structures, leadership approaches, and control systems for effective managerial performance.

Course Content	Weightage	Contact hours
Unit 1 Introduction to Management Definition, nature, and significance of management, principles of management, management and administration, levels of management, role of managers and managerial skills; Evolution of management thought: Classical, Behavioral, Quantitative, Systems, Contingency and Modern approaches; Management as a science and an art; Functions of management: Planning, organizing, leading, and controlling	**25%**	**15**
Unit 2 Planning, Organizing and Staffing Nature, Importance and Purpose of planning in management; Types of plans: Strategic,	**25%**	**15**

tactical, operational ; Planning process and techniques ; Decision- making- Importance and steps, decision making models and tools; Organizational structure and design; types of organizational structures:		
Functional, divisional, matrix; Authority, responsibility, and delegation, Centralization Vs Decentralization of authority and responsibility – Span of Control; Coordination and integration, MBO and MBE; Nature and Importance of staffing – Process of selection and recruitment		
Unit 3 Leading, Directing and Controlling Meaning and nature of directing, Leadership theories (trait, behavioral, contingency, participative, charismatic, transformational, level-5 leader), Motivation theories and practices (Maslow, Herzberg two factor, McGregor's theory x & theory y), Hawthorne effect, Communication (meaning and importance) in management, Team building and group dynamics; Controlling- meaning and steps in controlling, control process and systems, essentials of sound control system, methods of establishing control, types of control; Performance measurement and management.	**25%**	**15**
Unit 4 Strategic Management, Ethics and Social Responsibility Overview of strategic management, SWOT analysis and strategic formulation, Implementing and evaluating strategies. Ethical issues in management, Corporate social responsibility (CSR), Sustainable management practices.	**25%**	**15**

Learning Resources	
1.	**Textbook:** 1. Rao, V. S. P. Management Principles and Applications. Taxmann Publications. 2. Bright, D. et al. Principles of Management. OpenStax Textbooks, Houston 3. Kapoor, Premvir, Principles of Management, Khanna Book Publishing. 4. Jones, G. R., and George, J. M. Essentials of contemporary management. New York, NY: McGraw-Hill Education. 5. Robbins, S. P. & Coulter, M. A. Management. Pearson.
2.	**Reference Books:** 1. Indian Business Rising: The Contemporary Indian Way of Conducting Business-And How It Can Help You Improve Your Business | Harvard Business Review Press | 5813BC-PDF-ENG | https://hbsp.harvard.edu/product/5813BC-PDF-ENG
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**		
Mid Semester Marks	20 marks		
End Semester Marks	40 marks		
Continuous Evaluation 40 marks			
	Class Participation	10 marks	
	Quiz	5 marks	
	Skill Enhancement activities/ Case Study/ Research Paper	15 marks	

		Presentation	10 marks	
Course Outcomes	1.CO1: Explain the definition, nature, principles, levels, managerial roles, and evolution of management thought, and distinguish management as a science and an art. 2.CO2: Apply the functions of management—planning, organizing, staffing, directing, and controlling—to enhance managerial effectiveness in organizations. 3.CO3: Apply management theories, planning techniques, and decision-making models to solve practical managerial and organizational problems. 4.CO4: Analyze organizational structures, leadership styles, motivation theories, communication processes, and control systems for effective managerial decision-making. 5.CO5: Evaluate strategic management processes, ethical issues, CSR initiatives, and sustainable management practices in organizational policy formulation and implementation.			

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	1
CO2	3	3	1	1	2
CO3	3	2	1	1	3
CO4	3	3	1	3	3
CO5	3	2	3	1	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

PROGRAMME SPECIFIC OUTCOMES
Demonstrate a futuristic approach and adapt to changing business trends, thereby becoming industry-ready professionals
Communicate effectively with stakeholders using various contemporary technologies and develop proficiency in business communication
Value and demonstrate managerial competencies, such as leadership, teamwork, and decision-making, to achieve professional and personal development
Understand ethical and professional behavior in all aspects of business operations
Apply critical thinking and problem-solving skills to identify, analyze, and solve complex business problems, and evaluate the effectiveness of solutions

COURSE CODE BBA102	COURSE NAME Financial Accounting	SEMESTER I

Teaching Scheme (Hours)				Teaching Credit			
Lecture	**Tutorial**	**Practical**	**Total Hours**	**Lecture**	**Tutoria l**	**Practical**	**Total Credit**
45	15	0	60	3	1	0	4

Course Prerequisites	Accounting is a critical part of business and financial management, students need basic classes in business, economics, finance, and management
Course Category	Core subject, students will be able to understand how financial data is generated and how it can be converted into useful information for stakeholders in a business.
Course focus	This course presents an introduction to financial statement analysis and its usage when assessing business performance. The first part of the course will focus on understanding the most important financial statements, namely, the balance sheet, the income statement, and the statement of cash flows
Rationale	1. To provide an understanding of application of various principles and practice of Accounting. 2.To demonstrate the knowledge on the process of accounting cycle and basic steps involved in Accounting. 3.To apply the knowledge of systematic maintenance of books of accounts to real life business. 4. To estimate Annual Financial statements of Sole proprietorship and Company form of business.
Course Revision/ Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	Understand accounting concepts, standards, users and accounting process. Record transactions including GST, prepare ledger and trial balance. Prepare final accounts with proper disclosures. Prepare company accounts as per Companies Act and sustainability standards. Integrate accounting information for managerial and statutory decisions.

Course Content	Weightage	Contact hours
Unit 1 Introduction to Accounting, Accounting system and process Meaning, Need for accounting and accounting information system, Stakeholder using accounting information, Qualitative aspects of financial accounting, Accounting standards in India and International (outline), Branches of Accounting, Types of Business Organisations, Accounting taxonomy, Accounting concepts and conventions, Accounting concept of income and expenditure, Classification of capital and revenue- expenditure and income, accounting equation of assets equals capital and liabilities, accounting process, contingent assets and liabilities, Fictitious assets.	**25%**	**15**
Unit 2 Recording transactions and Trial balance Transactions -nature, Entry in Journal, Purchases, sales, Returns, Receivables, and payables, Inventory, Depreciation and amortizations, reserves, Intangible assets accounting, GST transactions, Entry in Ledger, Accounting accuracy through Trial balance, correction of errors.	**25%**	**15**
Unit 3 Final Accounts Preparation of Trading and Profit and Loss account, cash books, and Balance Sheet of sole	**25%**	**15**

trading concerns, importance of disclosures in final accounts		
Unit 4 Company Final Accounts	**25%**	**15**
Introduction to company – kinds, share capital, issue of shares, schedules		
to accounts, Financial statements as per Companies Act- 2013, Provisions as to Preparation of Financial Statements, Preparation of Income statement and Balance sheet (horizontal and Vertical). Green Accounting and Sustainable Reporting- Need and objectives, Sustainability reporting need and methods, data collection, analysis for sustainable reporting to improve value of business, IFRS Financial sustainability disclosure standards.		

Learning Resources	
1.	**Textbook:** 1. Jain S.P.,& Narang K L. . Basic Financial Accounting I, New Dehli, Kalyani publishers. 2. Kimmel, Financial accounting, Wiley Publications 3. Gupta, A.. Financial Accounting for Management: An Analytical Perspective, Noida, Pearson Education. 4. S.N. Maheshwari, and. S. K. Maheshwari. Financial Accounting. Vikas Publishing House, New Delhi. 5. Ashish k Battacharya, Essentials of financial accounting for Business Managers, Six, PHL learning. 6. Accounting for sustainability: 7. Peter Bartelmus, E K Seifert, Green Accounting, London, Routledge Publications 8. IFRS sustainability standards: Model curriculum for UG Degree in BBA 40 **Suggested Cases** 1. Smokey Valley Café 2. Irrigation Equipment's Limited 3. Monarch Trading Company
2.	**Reference Books:**
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

	Evaluation Scheme	**Total Marks: 100**	
	Mid Semester Marks	20 marks	

End Semester Marks	40 marks				
Continuous Evaluation 40 marks					
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	CO1: Explain accounting principles and conventions in preparation of accounts. CO2: Apply accounting cycle from transaction to trial balance. CO3: Apply accounting procedures including depreciation, GST and reserves. CO4: Analyze financial statements including sustainability disclosures. CO5: Evaluate accounting information for managerial and stakeholder decisions.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	1	1	1	1
CO3	3	1	1	1	2
CO4	3	1	3	1	3
CO5	3	1	2	1	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

PROGRAMME SPECIFIC OUTCOMES
Demonstrate a futuristic approach and adapt to changing business trends, thereby becoming industry-ready professionals
Communicate effectively with stakeholders using various contemporary technologies and develop proficiency in business communication

Value and demonstrate managerial competencies, such as leadership, teamwork, and decision-making, to achieve professional and personal development
Understand ethical and professional behavior in all aspects of business operations
Apply critical thinking and problem-solving skills to identify, analyze, and solve complex business problems, and evaluate the effectiveness of solutions

COURSE CODE BBA103	COURSE NAME Business Statistics and Logic	SEMESTER I

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Tutorial	Practical	Total Hours	Lecture	Tutorial	Practical	Total Credit
45	15	0	60	3	1	0	4

Course Prerequisites	Prerequisites for Business Statistics and Logic include basic knowledge of mathematics algebra, sets, and functions, foundational understanding of statistics mean, variance, and probability, and logical reasoning skills propositional logic and problem-solving
Course Category	Core subject, specifically focusing on statistical analysis, logical reasoning, and decision-making tools applicable in business and management contexts.
Course focus	The Business Statistics and Logic course focuses on equipping students with analytical and statistical tools to interpret data, solve business problems, and make informed decisions. It emphasizes practical applications of statistical methods, logical reasoning, and quantitative analysis in real-world business scenarios.
Rationale	1. To establish importance of logical reasoning in human inquiry. 2. To demonstrate data handling skills and summarize data with clarity. 3. To extend an understanding of application of relevant concepts of Statistics to a given business scenario. 4. To understand business problems and make decisions using appropriate statistical models and explain trends 5. To demonstrate the knowledge on the process of organizing a data and conduct statistical treatment.
Course Revision/ Approval Date:	
Course Objectives (As per Blooms' Taxonomy)	To explain the importance of logical reasoning and its application in solving analytical and business problems. To classify, organize, tabulate and summarize business data using appropriate statistical measures. To apply statistical concepts such as measures of central tendency, dispersion, and probability to business scenarios. To analyze business problems and interpret trends using correlation, regression, and probability models.
	To organize, analyze and interpret data using appropriate statistical techniques for decision making.

Course Content	Weightag e	Contact hours
Unit 1 Measures of Central Tendency, Dispersion, Measures of Skewness and Kurtosis Classification and tabulation of data, frequency distribution, diagrams and graphs, measure of central tendency- arithmetic mean, weighted arithmetic mean, median, mode, geometric mean and harmonic mean (theory only) and meaning of partition values- quartiles, deciles, percentiles, measures of dispersion - range, quartile deviation, mean deviation from mean and median, standard deviation and coefficient of variation. Skewness - meaning, difference between dispersion and skewness, Karl Pearson's and Bowley's measures of skewness, concept of kurtosis, types of kurtoses and importance.	**25%**	**15**

Unit 2 : **Correlation and Regression** Meaning, definition and use of correlation, covariance, scatter diagram, types of correlation, Karl Pearson's correlation coefficient, Spearman's Rank correlation coefficient, probable error. regression- meaning and utility of regression analysis, comparison between correlation and regression, regression lines –x on y, y on x, regression equations and regression coefficients. meaning,	**25%**	**15**
Unit 3 Probability and Probability distributions Introduction to probability, basic concepts of probability- classical definition, addition and multiplication rules, probability distributions – binomial, poisson and normal distributions, expected value.	**25%**	**15**
Unit 4 : **Introduction to Logic** Number series, coding decoding and odd man out series, direction sense test, seating arrangements – linear and circular, blood relations, arithmetic and geometric progressions, Inductive and deductive reasoning.	**25%**	**15**

Learning Resources	
1.	**Textbook:** 1. Levin R. I.& Rubin D. S. Statistics for Management. Delhi: Pearson. 2. Pillai & Bagavathi. Statistics, Theory and Practice, S Chand Publishing 3. SP Gupta. Statistical Methods, Sultan Chand and Sons 4. SC Gupta. Fundamentals of Statistics, Himalaya Publishing House 5. Sharma, Gupta, The Practice of Business Statistics, Khanna Publishing House. 6. Sharma J.K. Business Statistics, Vikas Publishing House Reference **Research Paper**: • Fildes, R., & Goodwin, P. (2007). Against your better judgment? How organizations can improve their use of management judgment in forecasting. Interfaces, 37(6), 570-576.• Stanovich, K. E., & West, R. F. (2000). Individual differences in reasoning: Implications for the rationality debate? Behavioral and Brain Sciences, 23(5), 645-665.
2.	**Reference Books:**
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**			
Mid Semester Marks	20 marks			
End Semester Marks	40 marks			
Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	
Course Outcomes	CO1: Remember and define fundamental statistical and logical reasoning concepts used in business			

		decision-making.

		CO2: Understand and explain statistical concepts and their relevance in business contexts. CO3: Apply statistical tools to organize, analyze and interpret business data. CO4: Analyze relationships between variables using correlation, regression, and probability techniques. CO5: Evaluate business trends and support managerial decisions using appropriate statistical models.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	1	1	1	2
CO3	3	1	1	1	3
CO4	3	1	1	1	3
CO5	3	1	1	1	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA104	**COURSE NAME** INTRODUCTION TO DATA SCIENCE	**SEMESTER** I

Teaching Scheme (Hours)				**Teaching Credit**			
Lecture	**Practical**	**Tutorial**	**Total Hours**	**Lecture**	**Practical**	**Tutorial**	**Total Credit**
45	0	15	60	3	0	1	4

Course Pre-requisites	Basic Knowledge about Information Technology
Course Category	DSE
Course focus	Skill Enhancement
Rationale	This course will equip students with the necessary skills to work with large datasets, understand statistical models, and develop predictive models, which will enable them to contribute significantly to the organization's growth and success. Additionally, data science is an increasingly in-demand field, and knowledge in this area can open up numerous career opportunities.
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives (As per Blooms' Taxonomy)	1. To analyze fundamental data science concepts and evaluate their relevance in managerial decision-making. 2. To examine and interpret descriptive statistical measures to extract meaningful insights from business datasets. 3. To apply appropriate data handling and organization techniques to prepare datasets for business analysis. 4. To assess basic statistical methods to draw valid inferences and support evidence-based managerial decisions. 5. To evaluate the role of predictive analytics techniques in business contexts such as forecasting, market analysis, and customer behavior studies.

Course Content (Theory)	**Weightage**	**Contact hours**
Unit 1: 1. Introduction to data analysis tools in Python 2. Descriptive statistics 3. Data structures with Pandas 4. Introductory hypothesis testing and statistical inference	**20%**	**11**
Unit 2: 1. Web scraping and data acquisition via APIs 2. Linear regression 3. Classification methods, including logistic regression, knearest neighbours, decision trees, and support vector machines	**20%**	**11**
Unit 3: 1. Data visualization 2. Clustering methods 3. Dimensionality reduction, including principle component analysis	**15%**	**11**

Unit 4: 1. Network analysis 2. Rating, ranking, and elections 3. Cleaning and reformatting messy datasets using regular expressions or dedicated tools such as open refine	**25%**	**16**
Unit 5: 1. Natural language processing 2. Ethics of big data	**20%**	**11**

Instructional Method and Pedagogy: (Max. 100 words)
Usage of real-world datasets to teach students data analysis, machine learning, and statistical modeling techniques. Students will be encouraged to collaborate in teams to work on projects and learn how to present their findings using data visualization tools.

Simulations/Lecture/cases/Presentation/ Assignment

Course Objectives:	**Blooms' Taxonomy Domain**
To analyze fundamental data science concepts and evaluate their relevance in managerial decision-making. To examine and interpret descriptive statistical measures to extract meaningful insights from business datasets. To apply appropriate data handling and organization techniques to prepare datasets for business analysis. To assess basic statistical methods to draw valid inferences and support evidence-based managerial decisions. To evaluate the role of predictive analytics techniques in business contexts such as forecasting, market analysis, and customer behavior studies.	To To To To To

Learning Resources	
1.	**Textbook** : Data Science from Scratch: First Principles with Python, 2nd Edition Book by Joel Grus Publisher: Shroff/ O'Reilly
2.	**Reference books :** 1. Irizarry, R. (2019). Introduction to data science: data analysis and prediction algorithms with R. CRC Press. 2. Igual, L., Seguí, S., Puertas, E., Radeva, P., Pujol, O., Escalera, S., ... & Garrido, L. (2021). Introduction to Data Science: A Python Approach to Concepts, Techniques and Applications. CRC Press.
3.	**Journals, Periodicals, Reference** 1. Journal of Data Science 2. IEEE Transactions on Knowledge and Data Engineering 3. ACM Transactions on Knowledge Discovery from Data 4. Journal of Big Data 5. Journal of Machine Learning Research
4.	**Other Electronic Resources:** UC Irvine Machine Learning Repository https://archive.ics.uci.edu/ml/index.php Variety of consumer datasets World Bank US Governm

Evaluation Scheme	**Total Marks**
Theory: Mid semester Marks	20 marks

Theory: End Semester Marks	40 marks
Theory: Continuous Evaluation Component Marks	Attendance 05 marks MCQs 10 marks Open Book Assignment 15 marks Article Review 10 marks **Total 40 Marks**

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	2
CO2	3	1	1	1	3
CO3	3	1	1	1	2
CO4	3	1	1	1	3
CO5	3	1	1	1	3

Course Outcomes	6.CO1: Explain basic data science concepts and tools used for data analysis and informed managerial decision-making. 7.CO2: Interpret simple descriptive statistics to understand patterns, trends, and variations in business data. 8.CO3: Manage datasets using appropriate data handling techniques for business analysis. 9.CO4: Apply basic statistical methods to draw meaningful conclusions from sample data in real-life business contexts. 10. CO5: Identify and interpret the role of predictive models in business applications such as forecasting, classification, and customer analysis.

L

COURSE CODE MDE101	COURSE NAME Indian Knowledge System	SEMESTER I

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Tutorial	Practical	Total Hours	Lecture	Tutorial	Practical	Total Credit
30	0	0	30	2	0	0	2

Course Prerequisites	Basic Knowledge till 12th
Course Category	MDE
Course focus	Indian Historical Knowledge
Rationale	•To sensitize the students about context in which they are embeded i.e. Indian culture and civilisation including its Knowledge System and Tradition. •To help students to understand the knowledge, art and creative practices, skills and values in the ancient Indian system. • To help to study the enriched scientific Indian heritage.•To introduce the contribution from Ancient Indian system & tradition to modern science & Technology
Course Revision/ Approval Date:	
Course Objectives (As per Blooms' Taxonomy)	To sensitize the students about context in which they are embeded i.e. Indian culture and civilisation including its Knowledge System and Tradition. To help student to understand the knowledge, art and creative practices, skills and values in ancient Indian system. To help to study the enriched scientific Indian heritage To introduce the contribution from Ancient Indian system & tradition to modern science & Technology

Course Content	Weightage	ontact hours
Unit 1 Introduction to IKS (Any eight of total sessions assigned for Literary activity) Introductory lecture on the any eight topics below: 1. Indian Knowledge System 2. Indian Culture & Civilization 3. Ancient Indian Chemistry 4. Ancient Indian Metallurgy 5. Ancient Indian Mathematics 6. Ancient Indian Astronomy 7. Indian Astronomical Instruments 8. Indian Knowledge System (Upveda: Ayurveda) 9. Indian Knowledge System (Upveda: Gandharveda) 10.Indian Knowledge System (Vedangas: Shiksha, Kalpa, Vyakrana) 11.Indian Knowledge System (Vedangas: Jyotisha, Nirukta, Chandas) 12. Indian Architecture I: Sthapatya-Veda 13. Indian Architecture II: Temples 14. Indian Architecture III: Town & Planning 15. Indian Philosophical System.	**50%**	**15**
Unit 2 : **Introduction to Creative Practices** (Twenty Lectures with at least Five different topics of total session under Creative activity) Introductory lecture on the topics below: 1. Dhatuvada: art of metallurgy 2. Akara jnana: art of mineralogy	**50%**	**15**

3. Vastuvidya: art of engineering 4. Yantramatrika: art of mechanics 5. Takshana: art of carpentry 6. Chalitakayoga: art of practicing as a builder of shrines		

7. Raupyaratnapariksha: art of testing silver and jewels 8.Maniraga jnana: art of tinging jewels Model curriculum for UG Degree in BBA 275		

9. Sucivayakarma: art of needleworks and weaving 10. Vadya vidya: art of playing on musical instruments 11. Geet vidya : art of singing 12. Nritya vidya: art of dancing 13. Natya vidya: art of theatricals 14. Alekhya vidya: art of painting 15.Viseshakacchedya vidya: art of painting the face and body with color 16. Udakavadya: art of playing on music in water 17. Manasi kavyakriya: art of composing verse 18. Bhushanayojana: art of applying or setting ornaments 19. Citrasakapupabhakshyavikarakriya: art of preparing varieties of delicious food 20. Dasanavasanangaraga: art of applying preparations for cleansing the teeth, cloths and painting the body 21. Utsadana: art of healing or cleaning a person with perfumes 22. Vastragopana: art of concealment of cloths 23. Balakakridanaka: art of using children’s toys 24.Tandulakusumabalivikara: art of preparing offerings from rice and flowers 25. Pushpastarana: art of making a covering of flowers for a bed		

Learning Resources		
1.	1. Textbook on IKS by Prof. B Mahadevan, IIM Bengaluru	
2.	References:	

	1. Kapur K and Singh A.K (Eds) 2005). Indian Knowledge Systems, Vol. 1. Indian Institute of Advanced Study, Shimla. Tatvabodh of sankaracharya, Central chinmay mission trust, Bombay, 1995. 2. The Cultural Heritage of India. Vol.I. Kolkata:Ramakrishna Mission Publication, 1972. 3. Nair, Shantha N. Echoes of Ancient Indian Wisdom. New Delhi: Hindology Books, 2008. 4. Dr. R. C. Majumdar, H. C. Raychaudhuri and Kalikinkar Datta: An Advanced History of India (Second Edition) published by Macmillan & Co., Limited, London, 1953. 5. Rao, N. 1970. The Four Values in Indian Philosophy and Culture. Mysore: University of Mysore. 6. Avari, B. 2016. India: The Ancient Past: A History of the Indian Subcontinent from c. 7000 BCE to CE 1200. London: Routledge
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	Total Marks: 100
Mid Semester Marks	20 marks

End Semester Marks	40 marks

Continuous Evaluation 40 marks								
			Class Participatio	n		10 m	arks	
			Quiz			5	marks	
			Skill Enhanceme Study/ Research	nt activities/ Case Paper		15 m	arks	
			Presentation			10 m	arks	

Course Outcomes	CO1: Describe the origin, evolution, and core principles of Indian Knowledge Systems across disciplines such as philosophy, science, mathematics, medicine, and governance CO2: Explain key concepts from ancient Indian texts and traditions and their relevance to contemporary knowledge systems CO3: Apply selected IKS concepts to modern contexts such as management, sustainability, health, education, and technology CO4: Analyze contributions of Indian Knowledge Systems in comparison with modern or Western knowledge frameworks CO5: Assess the relevance of Indian Knowledge Systems in addressing current societal, ethical, and environmental challenges

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	1	1	2	1
CO2	2	1	1	2	1
CO3	2	1	3	2	2
CO4	2	1	1	3	2
CO5	2	1	3	2	3

COURSE CODE VACC102	COURSE NAME Environmental Science and Sustainability	SEMESTER I

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Tutorial	Practical	Total Hours	Lecture	Tutorial	Practical	Total Credit
30	0	0	30	2	0	0	2

Course Prerequisites	• Basic understanding of environmental science and its importance in contemporary issues. • Familiarity with fundamental business principles and operations (optional). • Awareness of global sustainability challenges and the UN Sustainable Development Goals (SDGs).
Course Category	Value Added Course
Course focus	• To explore the interconnectedness of the environment, natural resources, and sustainability within the business context. • To analyze the role of ecosystems, biodiversity, and sustainable practices in promoting ecological balance. • To understand the impacts of pollution, waste management, and disaster mitigation strategies on sustainable development.• To examine environmental legislation, ethics, and societal responsibilities toward environmental conservation.
Rationale	1.This course aims to familiarize students with basic environmental concepts, their relevance to business operations, and forthcoming sustainability challenges. 2.This course will equip students to make decisions that consider environmental consequences. 3.Thiscoursewillenablefuturebusinessgraduatestobecome environmentally sensitive and responsible managers.
Course Revision/ Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	**To analyze environmental concepts and sustainability issues relevant to business and management.** **To examine the interrelationship between environmental systems and socio-economic dynamics.** **To evaluate the impact of business activities on environmental pollution, resource use, and sustainability.** **To assess environmental legislation, ethics, and social issues related to sustainable development.** **To apply sustainable strategies and practices to address environmental challenges in business operations.**

Course Content	Weightage	Contact hours
Unit 1 Understanding Environment, Natural Resources, and Sustainability Fundamental environmental concepts and their relevance to business operations; Components and segments of the environment, the man- environment relationship, and historical environmental	**30%**	**8**

movements. Concept of sustainability; Classification of natural resources, issues related to their overutilization, and strategies for their conservation. Sustainable practices in managing resources, including deforestation, water conservation, energy security, and food security issues. The conservation and equitable use of resources, considering both intergenerational and intergenerational equity, and the importance of public awareness and education.		
Unit 2 Ecosystems, Biodiversity, and Sustainable Practices Various natural ecosystems, learning about their structure, functions, and ecological characteristics. The importance of biodiversity, the threats it faces, and the methods used for its conservation. Ecosystem resilience, homeostasis, and carrying capacity, emphasizing the need for sustainable ecosystem management. Strategies for in situ and ex situ conservation, nature reserves, and the significance of India as a mega diverse nation.	**20%**	**7**
Unit 3 Environmental Pollution, Waste Management, and Sustainable Development Various types of environmental pollution, including air, water, noise, soil, and marine pollution, and their impacts on businesses and communities. Causes of pollution, such as global climate change, ozone layer depletion, the greenhouse effect, and acid rain, with a particular focus on pollution episodes in India. Importance of adopting cleaner technologies; Solid waste management; Natural and man-made disasters, their management, and the role of businesses in mitigating disaster impacts.	**30%**	**8**
Unit 4 Social Issues, Legislation, and Practical Applications Dynamic interactions between society and the environment, with a focus on sustainable development and environmental ethics. Role of businesses in	**20%**	**7**
achieving sustainable development goals and promoting responsible		
consumption. Overview of key environmental legislation and the judiciary's role in environmental protection, including the Water (Prevention and Control of Pollution) Act of 1974, the Environment (Protection) Act of 1986, and the Air (Prevention and Control of Pollution) Act of 1981. Environmental justice, environmental refugees, and the resettlement and rehabilitation of affected populations; Ecological economics, human population growth, and demographic changes in India.		

Learning Resources	
1.	**Textbook:** • Poonia, M.P. Environmental Studies , Khanna Book Publishing Co. • Bharucha, E. Textbook of Environmental Studies, Orient Blackswan Private Ltd. • Dave, D., & Katewa, S. S. Text Book of Environmental Studies. Cengage Learning India Pvt Ltd. • Rajagopalan, R. Environmental studies: from crisis to cure , Oxford University Press. Model curriculum for UG Degree in BBA 47 • Miller, G.T. & Spoolman S. Living in the Environment. Cengage. • Basu, M., & Xavier Savarimuthu, S. J. Fundamentals of environmental studies. Cambridge University Press. • Roy, M. G. Sustainable Development: Environment, Energy and Water Resources. Ane Books. • Pritwani, K. Sustainability of business in the context of environmental management. CRC Press. • Wright, R.T. & Boorse, D.F. Environmental Science: Toward A Sustainable Future (13th ed,). Pearson.
2.	**Reference Books:** References Web links: • • • •
3.	**Journals & Periodicals:**

	4.Environmental Science & Technology (ACS Publications).
	5.Journal of Environmental Management. 6.Indian Journal of Environmental Protection. 7.Ecological Economics. 8.Nature Sustainability.
9.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**			
Mid Semester Marks	20 marks			
End Semester Marks	40 marks			
Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	
Course Outcomes	CO1: Analyze environmental and sustainability issues in the context of business decision-making. CO2: Evaluate the interdependence of environmental processes and socio-economic systems. CO3: Assess the role of business policies and practices in minimizing environmental degradation. CO4: Propose practical solutions to environmental problems arising from managerial actions. CO5: Apply sustainable practices in business operations to address contemporary environmental concerns.			

		L	**T**	**P**	**C**	
		2	0	1	2	

	CO	PO1	PO2	PO3	PO4	PO5
	CO1	2	1	3	1	3
	CO2	2	1	3	1	3
	CO3	2	1	3	1	3
	CO4	2	1	3	1	3
	CO5	3	1	3	1	3

COURSE CODE AECC101	**FUNDAMENTALS OF ENGLISH**	1	0	1	2		
Total Credits:2	**Total Hours in semester:30**	**Total Marks: 100**					
1	**Course Pre-requisites** Students should have basic knowledge of English language and grammar						
2	**Course Category:**AEC						
3	**Course Revision/Approval date**						
4	**Course Objectives**						
4.1To emphasize the development of listening and reading skills among learners							

4.2To equip with writing skills needed for academic as well as work place context	
4.3To enable learners of Engineering and Technology develop the irbasic communication skills in English	

CourseContent	**Weightage**	**Contact hours**	**Pedagogy**
Unit 1: **Language Basics** Parts of speech, word formation, prefix-suffix, synonyms, antonyms, homophones and standard abbreviations	20%	6	Discussion+Power PointPresentation+ Sample Practice + Revision
Unit 2: Elementary Reading/Writing Skills Types of thesentences, structures of the sentences, use of phrases and clauses,punctuation, creative writing and coherence, comprehension, essay/paragraph writing,precise writing	30%	9	Power Point Presentation + Discussion+Software Based Learning / Language Lab + Sample Practice
Unit 3 Elementary Spoken Skills Greetings, farewell and introduction, making an apology, accepting an apology,making an appointment,JAM, group discussion, debate, public speaking	30%	9	Power Point Presentation + Discussion+Software Based Learning / Language Lab + SamplePractice+Role
			Play
Unit 4 **Practicing and Identifying the Common Error** Tense, subject-verb agreement, noun-pronoun agreement,articles, prepositions,modalauxiliaries, voice, reported speech	20%	6	Discussion+Power PointPresentation+ Sample Practice + Revision

LearningResources	
1.	Textbook
2.	Reference books 1.Murphy,Raymond“Murphy’s English Grammar with CD” Cambridge University Press, 2004. . 2.Thorpe, Edgarand Showick Thorpe “Basic Vocabulary” Pearson Education India, 2012. 3.Green,David.“Contemporary English Grammar Structuresand Composition” MacMillan Publishers, New Delhi, 2010. 4.Wren & Martin (2001),English Grammar & Composition,New York
3.	Journal
4.	Periodicals
5.	Other Electronic resources Language Lab–WordsworthSoftware

EvaluationScheme	**TotalMarks**			
MidsemesterMarks	30 Marks			
EndSemesterMarks	50Marks			
ContinuousEvaluation Marks	Attendance		5 marks	
		Quiz	5 marks	

		Skill enhancement activities/ case study	5 marks	
		Presentation/miscellaneous activities	5 marks	

tasks.	
AdditionalInformationto enhance learning	Any site visit required orexperttalkrequiredon specific topics.

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	1	1	3	1
CO2	2	1	1	3	1
CO3	2	2	1	3	1
CO4	2	1	1	3	1
CO5	2	2	1	3	1

COURSE CODE BBA201	COURSE NAME Human Behaviour and Organization	SEMESTER II

Teaching Scheme (Hours)				Teaching Credit			
Lect ure	Tutori al	Practic al	Total Hours	Lect ure	Tuto rial	Practic al	Total Credit
3	1	0	4	3	1	0	4

Course Prerequisites	Students are expected to have a basic understanding of management principles and human behavior. Familiarity with foundational concepts in psychology, sociology, and business management will be beneficial. Critical thinking, communication skills, and a willingness to participate in discussions and group activities are essential for engaging with the course material effectively.
Course Category	Compulsory
Course focus	This course focuses on understanding and analyzing human behavior in organizational settings. It explores key topics such as motivation, leadership, team dynamics, communication, and organizational culture. The course emphasizes practical applications of OB theories, equipping students with skills to manage interpersonal relationships, enhance team performance, and foster a positive work environment. Real-world case studies, role- plays, and interactive activities will provide hands-on experience to bridge theory and practice.
Rationale	1. To develop a basic understanding of the concept of human behavior and organization. 2. To highlight the importance of OB in modern organizations. 3. To understand individual and group behavior in the workplace to improve the effectiveness of an organization. 4. To critically evaluate leadership styles and strategies.
Course Revision/ Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	To analyze fundamental theories and concepts of individual and group behavior in organizational settings. To examine key organizational behavior concepts such as motivation, leadership, team dynamics, and organizational culture. To apply organizational behavior theories to real-world workplace situations involving communication, conflict resolution, and team building. To assess workplace behavior patterns and organizational dynamics to identify challenges and recommend improvement strategies. To evaluate organizational practices and creating innovative solutions and strategies to enhance employee performance, job satisfaction, and organizational effectiveness.

Course Content	Weightage	Contact hours
Unit 1 Introduction to Human Behavior and Organization Meaning, importance, and historical development of organizational behavior; Factors influencing organizational behavior; Contributing disciplines of OB; OB models	**25%**	**15**
Unit 2 Individual Behavior Foundations of Individual Behavior; Personality- Determinants of personality, Type A and B, Big Five personality types, stages of personality development; Attitude - components, job-related attitudes; Learning- concept, theories, and reinforcement; Perception - concept,	**25%**	**15**

perceptual process, factors influencing perception; Values - concept and types: terminal values and instrumental values. Motivation – Concept, importance, and theories of motivation- Early Theories of motivation		
(Need Hierarchy, Theory X and Theory Y, Two Factors Theory); Contemporary Theories of motivation (Self-Determination Theory, Goal-setting Theory, Reinforcement Theory, Self-efficacy Theory		
Unit 3 Group & Team Behaviour Groups and Work Teams: Concept: Five Stage model of group development; Groupthink and shift; Indian perspective on group norms, Group, and teams; Types of teams; Creating team players from individual building. Individual & Group conflict; e-teams.	**25%**	**15**
Unit 4 Leadership & Power Leadership: Concept; Trait theories; Behavioral theories (Ohio and Michigan studies); Contingency theories, Authentic leadership; Mentoring, self-leadership; Inspirational Approaches (transformational, charismatic): Comparison of Indian leadership styles with other countries. Bases of Power. Organizational Culture : Concept of culture; Impact (functions and liability); Creating and sustaining culture: Employees and culture; Creating positive and ethical cultures; Need and importance of Cross-Cultural management, Stress, and its Management.	**25%**	**15**

Learning Resources	
1.	**Textbook:** 1. Robbins, Stephen - Organizational Behavior Prentice Hall of India Ltd., New Delhi. 2. Luthans Fred - Organizational Behavior: An Evidence-Based Approach - McGraw Hil Publishers Co. Ltd., New Delhi. 3. Prasad, L.M-Organizational Theory Behavior-Sultan Chand &Sons, New Delhi. 4. Rao, VS P-Organization Behavior –Himalaya Publishing House. 5. Aswathappa.K.-Organizational Behavior–Himalaya Publishing House, Mumbai, 18th Edition.
2.	**Reference Books:**
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**			
Mid Semester Marks	20 marks			
End Semester Marks	40 marks			
Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	1.CO1: Analyze individual and group behavior, leadership styles, and organizational culture to understand workplace relationships. 2.CO2: Apply organizational behavior principles to address real-world organizational challenges related to motivation, teamwork, and conflict management. 3.CO3: Assess organizational practices and workplace dynamics to identify behavioral issues and suggest practical solutions. 4.CO4: Evaluate the impact of leadership styles, motivation techniques, and team processes on employee performance and organizational effectiveness. 5.CO5: Design and propose strategies to foster positive organizational culture, improve communication, and enhance team performance.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	3	1	2	2
CO2	3	3	1	2	3
CO3	3	3	1	1	3
CO4	3	3	1	1	3
CO5	3	3	2	3	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

PROGRAMME SPECIFIC OUTCOMES
Demonstrate a futuristic approach and adapt to changing business trends, thereby becoming
industry-ready professionals
Communicate effectively with stakeholders using various contemporary technologies and develop proficiency in business communication
Value and demonstrate managerial competencies, such as leadership, teamwork, and decision-making, to achieve professional and personal development
Understand ethical and professional behavior in all aspects of business operations
Apply critical thinking and problem-solving skills to identify, analyze, and solve complex business problems, and evaluate the effectiveness of solutions

COURSE CODE BBA202	COURSE NAME Marketing Management	SEMESTER II

Teaching Scheme (Hours)				Teaching Credit			
Lecture	**Tutorial**	**Practical**	**Total Hours**	**Lecture**	**Tutorial**	**Practical**	**Total Credit**
3	1	0	4	3	1	0	4

Course Prerequisites	Students should have a basic understanding of business principles, foundational knowledge of economics, and introductory exposure to management concepts. Strong analytical and communication skills are essential. Familiarity with consumer behavior, market research techniques, and basic statistical tools is beneficial. A keen interest in marketing strategies and business trends is highly recommended.
Course Category	Compulsory
Course focus	The Marketing Management course focuses on developing strategic and analytical skills to understand consumer behavior, market research, and competitive dynamics. Students learn to create, implement, and evaluate marketing strategies, covering product development, pricing, distribution, promotion, and digital marketing. Emphasis is on real-world applications, ethical practices, and achieving organizational objectives effectively.
Rationale	1. Develop understanding about marketing management concepts and frameworks, and apply these to a new or existing business. 2. Develop skills to analyze and synthesize information and derive insights related to marketing management, from several perspectives 3. It also explores best practices in managing marketing activities within an organization and how to measure the impact on demand and attempt to forecast and influence its future levels, magnitude and timing.
Course Revision/ Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	To explain key marketing management concepts and frameworks and apply them to new or existing business contexts. To analyze and synthesize marketing information from multiple perspectives to derive actionable managerial insights. To examine best practices in managing marketing activities and evaluate their impact on demand, including forecasting and influencing future demand levels.

Course Content	Weightage	Contact hours
Unit 1 Introduction: Nature, Scope and Importance of Marketing, Evolution of Marketing; Core marketing concepts; Company orientation - Production concept, Product concept, selling concept, Marketing concept, Holistic marketing concept; Marketing Environment: Demographic, Economic,	**25%**	**15**
Political, Legal, Socio cultural, Technological environment (Indian context); Market and competition analysis, Market Analysis and Creating and Delivering Customer Value. types of marketing (B2C,		
B2G, B2B, C2C)		
Unit 2 Segmentation, Targeting and Positioning: Concept; Levels of Market Segmentation,	**25%**	**15**

Basis for Segmenting Consumer Markets; Consumer Behavior, The Rise of Consumer Democracy, Stimulus Response Model of Consumer Behavior, Buyer's Cultural, Social, Personal, and Psychological Characteristics particularly in Indian context, Consumer Buying Decision Process, Business Customer's Buying Decision Process, and Traditional vs. Experiential Marketing's View of Customer		
Unit 3 Product decisions: Concept of Product Life Cycle (PLC), PLC marketing strategies, Product Classification, Product Line Decision, Product Mix Decision, Branding Decisions, Packaging & Labelling. Portfolio approach– Boston Consulting Group (BCG) matrix. Introduction to Brand Management and Innovation and New Product Development. Pricing Decisions: Determinants of Price, Pricing Methods (Non-mathematical treatment), and Adapting Price. Promotion Decisions: Factors determining promotion mix, Promotional Tools – Fundamentals of advertisement, Sales Promotion, Public Relations & Publicity and Personal Selling. Marketing Channel Decision: Channel functions, Channel Levels, Types of Intermediaries: Wholesalers and Retailers, Introduction to Retail Management.	**25%**	**15**
Unit 4 Marketing of Services: unique characteristics of services, marketing strategies for service firms – 7Ps. Contemporary issues in Marketing, E- commerce, Digital Marketing, Ethics and social responsibility in Marketing, Integrated Marketing, Online Payments, Rural Marketing, Social Marketing, Green Marketing (Introductory aspects only).	**25%**	**15**

Learning Resources	
1.	**Textbook:** Kotler P., Keller K., et al. Marketing Management (16th edition). Pearson Education Pvt. Ltd.
2.	**Reference Books:** • Aaker, D. A. and Moorman Christine., Strategic Market Management: Global Perspectives. John Wiley & Sons. • Shainesh G. Kotler Philip, Keller Kevin, Alexander Chernev, Jagdish N. Sheth | Marketing Management. Pearson Higher Education • Kotler, P., Armstrong, G., and Agnihotri, P. Y. Principles of Marketing (17th edition). Pearson Education. • Ramaswamy, V.S. & Namakumari, S. Marketing Management: Indian Context Global Perspective (6th edition). Sage Publications India Pvt. Ltd.
3.	**Journals & Periodicals:** • Indian Journal of Marketing • Journal of Marketing • Vikalpa: The Journal for Decision Makers • South Asian Journal of Marketing • Journal of Business Research (Special Issues on Marketing)
	Other Electronic Resources: • Nirma University Management & Commerce Library Electronic Resources • GrowthAcad's Digital Marketing Course Syllabus (2024) • Pondicherry University MBA (Marketing) Syllabus

Evaluation Scheme	**Total Marks: 100**
Mid Semester Marks	20 marks

End Semester Marks		40 marks		
Continuous Evaluation (40 Marks)				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	
Course Outcomes		CO1: The learner will be able to apply fundamental marketing concepts and principles to explain the role of marketing in organizational contexts . CO2: The learner will be able to apply marketing mix elements to support effective organizational decision-making . CO3: The learner will be able to implement organizational marketing		
		strategies in given business scenarios and cases CO4: The learner will be able to analyse marketing practices using Indian business experiences, approaches, and case studies CO5: The learner will be able to assess and develop marketing decisions based on marketing implementation outcomes		

apply these principles to real-world scenarios.

2.**Strategic Decision-Making**: Develop the ability to create effective marketing strategies by analysing market opportunities, consumer behaviour, and competitive dynamics.

3.**Application of Marketing Tools**: Utilize marketing tools and techniques, such as digital marketing, branding, and product life cycle management, to enhance organisational performance and customer satisfaction.

4.**Ethics and Sustainability in Marketing**: Evaluate the ethical and sustainable practices in marketing, addressing contemporary challenges like green marketing and corporate social responsibility.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	1	1	1	2
CO3	3	2	1	1	3
CO4	3	1	1	1	3
CO5	3	2	1	1	3

COURSE CODE BBA203	COURSE NAME Business Economics	SEMESTER II

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Tutorial	Practical	Total Hours	Lecture	Tutorial	Practical	Total Credit
3	1	0	4	3	1	0	4

Course Prerequisites	Basic Understanding of Commerce, Business and Economics Concepts.
Course Category	Compulsory
Course focus	This course focuses on Micro Economics, Demand and Supply of the firm, Production, Cost and Revenue calculations for the firm.
Rationale	Business economics uses economic concepts and principles by emphasizing on demand and supply analysis, production & cost analysis and different market structures which are fundamental for further study. This course also introduces important macroeconomic concepts which are indispensable for understanding the functioning of an economy that might affect business performance. ♣ It equips students with fundamental concepts of microeconomics.♣ Business economics delves into the complexities of market structures, helping students navigate ♣ Challenges such as competition, regulatory environments, and technological disruptions. ♣ It fosters critical thinking by analyzing real-world case studies, enabling students to propose ♣ Innovative solutions to business problems. ♣ A grasp of business economics is essential for aspiring entrepreneurs, managers, and analysts ♣ Seeking to thrive in today's dynamic and interconnected business landscape.
Course Revision/	

Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	To explain and apply fundamental microeconomic concepts such as demand, supply, elasticity, production, and consumer behavior for analyzing decision-making of individual economic units. To analyze price and output determination under different market structures such as perfect competition, monopoly, monopolistic competition, and oligopoly.

	To interpret national income concepts and methods of measurement, including GDP, GNP, NDP, NNP, and circular flow of income in an economy. To evaluate key features and challenges of the Indian economy, including poverty, human capital formation, trade, and sustainable development in a global context.

Course Content	Weightage	Contact hours
Unit 1 Fundamentals and Basic elements of Microeconomics • The Economic Problem: Scarcity and Choice, Nature and Scope- Positive and Normative Economics. • Scope of Study and Central Problems of Micro and Macroeconomics• Demand Schedule: Individual and Market Demand Curve, Determinants of Demand, Law of Demand, Movement and Shift among Demand Curve, Elasticity of Demand. • Supply Schedule: individual and market supply, determinants of supply, law of supply, Elasticity of supply. Determination of demand and supply, effect of a shift in demand and supply.	**25%**	**15**
Unit 2 Producer And Consumer Behavior • Theory of Production-Factors of Production, Production Function, Law of Variable Proportions, Returns to Scale, Producers' Equilibrium. • Theory of Cost- Short Run and Long Run Average, Marginal and Total Cost Curves. • Cardinal Utility Approach-Law of Diminishing Marginal Utility, Law of EquiMarginal Utility, Indifference Curves, Budget Lines and Consumer Equilibrium	**25%**	**15**
Unit 3 Analysis of Market	**25%**	**15**
• Concept of Market and Main Forms of Market. • Price and Output Determination Under Perfect Competition, Monopoly, Monopolistic Competition, and oligopoly		
Unit 4 National Income and Various Indian Economy Challenges• Circular Flow of Income. Concept of GDP, GNP, NDP, NNP (At Market Price and Factor Cost), Methods of Calculating National Income.• A Brief Introduction of Indian Economy - Pre-and Post-Independence.• Current Challenges Facing by Indian Economy- Human Capital Formation, Poverty, Dynamic • BusinessEnvironment,TradewithVariousNations,Sustainable Economic Development.	**25%**	**15**

Learning Resources	
1.	**Textbook:** 1. Varian. H.R: Micro Economics A modern Approach

	2.Mc Connell & Brue: Micro Economics Principal, problems & policies. McGraw Hills Professional Publication. 3. Ahuja, H.L. Advanced Economic theory 4. Jain K.P. Advanced Economic theory 5. Jhingan M.L. Modern Micro Economics 6. J. Shapiro: Macro Economic Theory and Policy 7. W.H. Bransin: Macro-Economic Analysis 8. M.L. Jhingan: Macro-Economic Theory and Policy 9. M.C. Vaishya: Macro-Economic Theory 10. Sunil Bhaduri: Macro Economic Analysis 11.H.L. Ahuja: Micro Economic Theory; Modern Publisher, Gulab Bhawan, 6, Bahadurshah Zafar Marg, New Delhi. 12. Samuelson & William D. Nordhaus: Economics; McGraw Hills. 13. A.N. Agarwal: Indian Economy. 14. M. Maria John Kennedy: Advanced Micro Economic Theory; Himalaya Publishing House, Delhi. 15. I.C. Dhingra & V.K. Garg: Economic Development & Planning in India. 16. D.M. Mithani: Macro Economics; Himalaya Publishing House.

	17. Macroeconomics" by N. Gregory Mankiw	
	18.Macroeconomics: Principles, Applications, and Tools" by Arthur O'Sullivan, Steven Shiffrin, and Stephen Perez 19. Macroeconomics" by Olivier Blanchard	
2.	**Reference Books:**	
3.	**Journals & Periodicals:**	
4.	**Other Electronic Resources:**	

Evaluation Scheme	**Total Marks: 100**			
Mid Semester Marks	20 marks			
End Semester Marks	40 marks			
Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	CO1: Explain basic microeconomic concepts and illustrate the problem of resource allocation in an economy. CO2: Describe and explain the allocation and distribution of scarce resources using microeconomic principles. CO3: Apply market structures and pricing strategies to analyze firm behavior in different competitive environments. CO4: Analyze national income concepts and assess their relevance as measures of economic welfare.

	CO5: Evaluate major challenges of the Indian economy and suggest appropriate economic measures.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	1	1	1	1
CO3	3	1	1	1	3
CO4	3	1	2	1	3
CO5	3	1	2	1	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA 204	**COURSE NAME** Basics of DBMS	**SEMESTER** II

Teaching Scheme (Hours)				**Teaching Credit**			
Lecture	**Tutorial**	**Practical**	**Total Hours**	**Lecture**	**Tutorial**	**Practical**	**Total Credit**
45	0	0	45	3	1	0	4

Course Pre-requisites	**Basic knowledge of Business**
Course Category	Core course
Course focus	Employability
Rationale	The subject "Database Management Systems" aims to equip students with a comprehensive understanding of database concepts, design principles, and data organization techniques. It emphasizes the significance of structured data management in various applications and introduces students to relational and entity-relationship models. The subject prepares students for efficient and effective data handling in modern business and technological environments.
Course Revision/ Approval Date:	
Course Objectives **(As per Blooms' Taxonomy)**	1.To examine the fundamental concepts of Database Management Systems and their significance in modern data-driven applications. 2.To analyze and apply the Relational Model and ER Model for organizing data, enforcing constraints, and ensuring integrity in database design. 3.To demonstrate proficiency in applying normalization techniques to eliminate redundancy and ensure data integrity in relational databases. 4.To evaluate and compare different file organization techniques in DBMS for efficient data storage and access. 5.To apply theoretical knowledge and practical skills to design and develop a real-world database application using a Database Management System.

Course Content (Theory)	**Weightage**	**Contact hours**
Unit 1: The Basic Concepts Need for a Database Management System, The file based system, Limitations of file based system, The Database Approach, The Logical DBMS Architecture, Three level architecture of DBMS or logical DBMS architecture, Mappings between levels and data independence, The need for three level architecture, Physical DBMS Architecture, DML Precompiler, DDL Compiler, File Manager, Database Manager, Query Processor,Database Administrator, Data files indices and Data Dictionary, Commercial Database Architecture, Data Models	**20%**	**9**
Unit 2: Relational and ER Models The Relational Model, Domains, Attributes, Tuple and Relation, Super keys	**20%**	**9**
Candidate keys and Primary keys for the Relations, Relational Constraints, Domain Constraint, Key Constraint, Integrity Constraint, Update Operations and Dealing with Constraint Violations, Relational Algebra, Basic Set Operation, Cartesian Product, Relational Operations, Entity Relationship (ER) Model, Entities, Attributes, Relationships, More about Entities and Relationships, Defining		

Relationship for College Database, E-R Diagram, Conversion of E-R Diagram to Relational Database		
UNIT:3 Database Integrity and Normalisation Relational Database Integrity, The Keys, Referential Integrity, Entity Integrity, Redundancy and Associated Problems, Single-Valued Dependencies, Single- Valued Normalisation, The First Normal Form, The Second Normal Form, The Third Normal Form, , Dependency Preservation, Lack of redundancy, Rules of Data Normalisation, Eliminate Repeating Groups, Eliminate Redundant Data, Eliminate Columns Not Dependent on K	**20%**	**9**
Unit 4: File Organisation in DBMS Physical Database Design Issues, Storage of Database on Hard Disks, File Organisation and Its Types, Heap files (Unordered files), Sequential File Organisation, Indexed (Indexed Sequential) File Organisation, Hashed File Organisation, Types of Indexes, Index and Tree Structure, Multi-key File Organisation, Need for Multiple Access Paths, Multi-list File Organisation, Inverted File Organisation, Importance of File Organisation in Databases	**20%**	**9**
Unit 5: Practical Work Designing E-R models of given system - Normalization of given relational schemas Application **Development:** Development of a Hospital Management System Need to Develop the Hospital Management System (An HMS), Creating a Databasefor HMS, Developing Front End Forms, Reports, Using Queries and Record set	**20%**	**9**

Instructional Method and Pedagogy: (Max. 100 words)
The instructional methods for the subject will include lectures, interactive discussions, and hands-on practical sessions. Lectures will cover the theoretical concepts and principles of Database Management Systems, while interactive discussions will encourage critical thinking and problem-solving. Practical sessions will provide students with the opportunity to apply their knowledge in real-world scenarios, such as designing E-R models, normalizing databases, and developing a Hospital Management System. Students will also engage in group projects and case studies to enhance their teamwork and analytical skills.

Course Outcomes:	**Blooms' Taxonomy**
	Domain
CO1: Explain the basic concepts of Database Management Systems and their role in effective data management	Explain
CO2: Analyze and compare the Relational Model and ER Model and convert an ER diagram into a relational database schema.	Analyze
CO3: Apply normalization rules to eliminate redundancy and improve data integrity in a given relational database.	Apply
CO4: Evaluate and compare different file organization techniques for efficient data storage and access.	Evaluate
CO5: Create a functional Hospital Management System using a Database Management System, including database design, front-end forms, and query implementation.	Create

Learning Resources	
1.	Textbooks: Database Systems - Design, Implementation and Management 4th Edition :Rob & Coronel (Course Technology-Thomson Learnin g
2.	Reference Books: 1. Database Management System : Vipin Desai (Galgotia Pub.) 2.Modern Database Management 7th Edition : Hoffer, Prescott and

	McFadden, Pearson Education. Database Management System : Korth (Tata McGraw Hill) 1. Journal of Computer and System Sciences 2. International Journal of Computers and Applications 3.Indian Journal of computer science and engineering,
3.	Other Electronic Resources:

Evaluation Scheme Theory: Mid semester	**Total Marks** 20 marks

Marks
Theory: End Semester 40 marks
Marks
Theory: Continuous

Evaluation Component	Attendance	05 marks
Marks	MCQs	10 marks
	Open Book Assignment	15 marks
	Article Review	10 marks

	Total 40 Marks

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	1	1	1	2
CO3	3	1	1	1	2
CO4	3	1	1	1	2
CO5	3	1	1	1	3

COURSE CODE	COURSE NAME	SEMESTER
SEC201	**Emerging Technologies and Applications**	II

Teaching Scheme (Hours)				Teaching Credit			
Lecture	**Tutorial**	**Practical**	**Total Hours**	**Lecture**	**Tutorial**	**Practical**	**Total Credit**
2	0	0	2	2	0	0	2

Course Prerequisites	Basic knowledge of computer science, networking, and cybersecurity principles. Familiarity with programming concepts (e.g., Python, Java) and data management (e.g., databases, SQL). Understanding of mathematical concepts like statistics and probability. Awareness of emerging technologies such as IoT, Blockchain, and AR/VR is recommended.
Course Category	Multidisciplinary Elective(MDE)
Course focus	Understand the various applications
Rationale	• To provide a comprehensive understanding of emerging technologies such as block chain, IoT, cloud computing, robotics, AR/VR, etc.• To explore the applications, implications, and strategic advantages of emerging technologies in business for competitive advantage.
Course Revision/ Approval Date:	
Course Objectives	To introduce
(As per Blooms' Taxonomy)	students to key concepts and terminology related to emerging technologies such as AI, IoT, blockchain, cloud computing, and AR/VR. To develop an understanding of the fundamentals, benefits, challenges, and industry applications of emerging technologies. To enable students to apply knowledge of emerging technologies to evaluate their practical applications in solving real-world business problems. To critically evaluate the effectiveness,

	feasibility, and strategic value of emerging technologies across different industries. To analyze the impact of emerging technologies on business models, society, ethics, and organizational decision-making.

Course Content	Weightage	Contact hours
Unit 1 Cloud Computing Cloud service models (IaaS, PaaS, SaaS) – Deployment models (public, private, hybrid) - Cloud-based -enterprise solutions – Cost-benefit analysis and scalability Security and Governance – Data security and compliance in the cloud – Cloud governance frameworks	**25%**	**15**
Unit 2 Internet of Things (IoT) & Industry 4.0 Sensor technologies and connectivity - IoT Applications in Smart cities and infrastructure – Industrial IoT and manufacturing – IoT data processing and storage – Real-time analytics and decision-making – Concept of Industry 4.0 – Automation and smart manufacturing – Cyber-physical systems and digital twins – Robotics and advanced manufacturing technologies – Impact on Business Models – Transformation of production and supply chains – Business process optimization	**25%**	**15**
Unit 3 Block chain Technology Fundamentals of Block chain – Decentralization and distributed ledger – Cryptography and consensus mechanisms – Smart contracts – Financial services and digital identity – Challenges and Opportunities – Security and privacy issues – Regulatory and compliance considerations	**25%**	**15**
Unit 4 Augmented Reality (AR) and Virtual Reality (VR)	**25%**	**15**

Introduction to AR/VR – Key concepts and differences between AR and VR – Historical development and current state - AR/VR applications in marketing and customer experience – Training and development through immersive technologies – Challenges and Opportunities – Technological limitations andadvancements – Integration with existing business processes.		

Learning Resources	
1.	**Textbook:**
	1. Emerging Technologies by Errol S. van Engelen 2. Internet of Things by Jeeva Jose, Khanna Book Publishing. 3. Digital Transformation: A Strategic Approach to Leveraging Emerging Technologies, Anup Maheshwari 4. Virtual & Augmented Reality by Rajiv Chopra, Khanna Book Publishing. 5. Emerging Technologies for Effective Management by Rahul Dubey, Cengage Publications.

	6. IoT Fundamentals: Networking Technologies, Protocols, and Use Cases for the Internet of Things by David Hanes, Jerome Henry, Rob Barton, Gonzalo Salgueiro and Patrick Grossetete. 7. Blockchain for Business by Jai Singh Arun, Jerry Cuomo and Nitin Gaur. 8. Block Chain & Crypto Currencies by Anshul Kausik, Khanna Book Publishing. 9. Industry 4.0 Technologies for Business Excellence: Frameworks, Practices, and Applications by Edited By Shivani Bali, Sugandha Aggarwal, Sunil Sharma. 10. Blockchain, Artificial Intelligence, and the Internet of Things: Possibilities and Opportunities" by Pethuru Raj, Ashutosh Kumar Dubey, Abhishek Kumar, Pramod Singh Rathore.
2.	**Reference Books:** Schwab, K. (2016). The fourth industrial revolution. Crown Business.
3.	**Journals & Periodicals:** **Case Studies**
	1. Software and/or Data: Dilemmas in an AI Research Lab of an Indian IT Organization, Rajalaxmi Kamath; Vinay V Reddy, 2. Volkswagen Group: Driving Big Business With Big Data, Ning Su; Naqaash Pirani, https://hbsp.harvard.edu/product/W14007-PDFENG?Ntt=emerging%20technologies
4.	**Other Electronic Resources:** Practical (Suggestive List): • Hands on sessions on utilizing popular cloud platforms for development and deployment, offering hands-on experience with free tiers and trial accounts. • Hands on sessions on block chain technologies, focusing on the basics development and deployment of decentralized applications

Evaluation Scheme	**Total Marks: 100**			
Mid Semester Marks	20 marks			
End Semester Marks	40 marks			
Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	1.CO1: Explain key concepts and terminology related to emerging technologies such as AI, IoT, blockchain, cloud computing, and AR/VR. 2.CO2: Describe the fundamentals, benefits, challenges, and applications of emerging technologies in different industries. 3.CO3: Apply emerging technology concepts to evaluate their use in solving real-world business and operational

	problems. 4.CO4: Evaluate the effectiveness and feasibility of emerging technologies in driving innovation, efficiency, and business transformation. 5.CO5: Analyze the impact of emerging technologies on business models, society, ethics, and risk management by comparing their advantages and limitations.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	1	1	1	2
CO3	3	1	1	1	3
CO4	3	1	1	1	3
CO5	3	1	3	1	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE	COURSE NAME	SEMESTER II
AECC201	**Communication Skills in English**	

Teaching Scheme (Hours)				Teaching Credit			
Lecture	**Tutorial**	**Practical**	**Total Hours**	**Lecture**	**Tutorial**	**Practical**	**Total Credit**
2	0	0	2	2	0	0	2

Course Pre-requisites	Student should have cleared First Semester of Bachelor of Commerce
Course Category	Mandatory Course
Course focus	Communicational Skills
Rationale	It enables students to apply the knowledge of softskill i.e. Communication Skills to integrate with their working knowledge of the field to get maximum benefits of internal and external levels.
Course Revision/ Approval Date:	14/03/2023
Course Objectives (As per Blooms' Taxonomy)	1. To develop students' understanding of the fundamentals of verbal and non-verbal communication for effective professional interaction. 2. To enhance students' ability to apply appropriate grammar, vocabulary, and structure in academic and workplace writing. 3. To enable students to design and deliver effective written and oral communication such as letters, reports, presentations, and discussions. 4. To sensitize students to cultural and interpersonal communication challenges in diverse workplace environments. 5. To equip students with digital and ICT-based communication skills required for modern business and professional settings.
	To develop students' understanding of the fundamentals of verbal and non-verbal communication for effective professional interaction. To enhance students' ability to apply appropriate grammar, vocabulary, and structure in academic and workplace writing. To enable students to design and deliver effective written and oral communication such as letters, reports, presentations, and discussions. To sensitize students to cultural and interpersonal communication challenges in diverse workplace environments. To equip students with digital and ICT-based communication skills required for modern business and professional settings.

Course Content (Theory)	Weightage	Contact hours
Unit 1:Communicative Skills Basics of Communication, Verbal & Non-verbal, Communication, Barriers to Effective Communication, Strategies of Effective Communication	**20%**	6
Unit 2:Grammar &Vocabulary: Types of sentences, Synonyms, Antonyms, Tenses - Past, Present & Future, Homophones, Modals, Verb forms, Phrasal Verbs, Error correction, commonly misused words, technical terms	15%	5
Unit 3: Listening & Reading Skills:	**30%**	9

Definitions (Listening & Reading), Types of Listening, Barriers to Effective Listening, Traits of a Good Listener, Types of Reading, Techniques of Effective Reading, Reading Tasks (Critical & Inferential)		
Unit 4: Writing Skills & Speaking Skills: Letter writing - Complaint & Leave, Article, Precise writing, Report writing, Note-taking and Note-making, Creative Writing Introducing self, Interview Skills, Public Speaking, Debates, Role plays, Group Discussion.	**25%**	7
Unit 5:ICT/ Digital/ E-Skills: Computer Assisted Language Learning (CALL), Mobile Assisted Language Learning(MALL),Emails,Blogs,Digital/E-Portfolio, Filling Online Application Forms	**20%**	6

Instructional Method and Pedagogy:
Classroom Lecture, Case Studies, Quizzes, Presentations, Role Play, Expert Lecture (Consultant)

Course Objectives:	**Blooms' Taxonomy Domain**	**Blooms' Taxonomy Sub Domain**
To To To To To		

CO1: To emphasize the development of listening and reading skills among learners	Understand, Analyse, Remember	Define, Classify & Demonstrate
CO2: To equip them with writing skills needed for academic as well as workplace context	Analyse, Apply, Understand	Classify, Describe & Demonstrate
CO3: To enable learners of Engineering and Technology develop their basic communication skills in English	Understand, remember	Define, Describe & Demonstrate
CO4: To strengthen the fundamentals in English Language.	Remember, Analyse	Define Describe
CO5: To build up the confidence to communicate with the world.	Understand, Apply	Define, Classify, Describe & Demonstrate

Learning Resources	
1.	**Textbook:** Effective Technical Communication by M Ashraf Rizvi, McGraw Hill Education (India) Private Limited, New Delhi.
2.	**Reference Books:** 1. Communication Skills for Engineers and Scientists by Sangeeta Sharma and Binod Mishra, PHI Learning Private Limited, Delhi. 2. Technical Communication Principles and Practice by Meenakshi Raman and Sangeeta Sharma, Oxford University Press, 3rd Edition 3. Business Communication by Asha Kaul, PHI Learning Private Limited, Delhi. 4. Business Communication: Connecting in a Digital World by Raymond V. Lesikar, Marie, E. Flatley, Kathryn Rentz, Paula Lentz and Neerja Pande, McGraw Hill Education (India) Private Limited, New Delhi.

5. 6.	Business Communication Today by Courtland L. Bovee, John V. Thill and Roshan Lal Raina, Pearson, 13th Edition. Business Communication: From Principles to Practice by Matthukutty

M. Monippally, McGraw Hill Education (India) Private Limited, New Delhi.

7.	Technical Communication: A Practical Approach by William Sanborn Pfeiffer and T. V. S. Padmaja, Pearson, 6th Edition.

3.	Journal: Harvard Business Review
4.	Periodicals:
5.	Other Electronic Resources: Reader's Digest: Official Site to Subscribe & Find
Evaluation Scheme	**Total Marks**
Theory: Mid semester Marks	20 marks
Theory: End Semester Marks	40 marks

Theory: Continuous Evaluation Component Marks					
		Atte	ndance	10 marks	
		MC	s	10 marks	
		Skill / cas	enhancement activities e study	10 marks	
		Pres misc	entation/ miscellaneous activities	10 marks	
		Total	**l**	**20 Marks**	

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	1	1	3	1
CO2	2	1	1	3	1
CO3	2	3	1	3	1
CO4	2	1	3	3	3
CO5	2	2	1	3	2

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

VACC201	**Tinkering & Mentoring**	**L** **T** **P** **C** 0 0 2

		1

Total Credits: 1	**Total Hours in semester : 30**	**Total Marks: 100**

1	**Course Pre-requisites: NA**
2	**Course Category: Value Added Course**
3	**Course Revision/ Approval date**
4	**Course Objectives**

4.1To provide hands-on experience in problem-solving and prototyping through group-based tinkering projects.
4.2 To develop entrepreneurial, creative, and critical thinking skills among students.
4.2To enhance students' understanding of industry standards, intellectual property rights, and ethical practices.
4.3To foster collaboration, teamwork, and communication skills through multidisciplinary group projects.
4.4To expose students to real-world case studies, expert insights, and best practices in innovation and sustainability

Course Content	**Weightage**	**Conta ct hours**	**Pedagogy**
Unit 1 Introduction to **Entrepreneurship:** Understanding the concept, need, myths, and types of entrepreneurship. Importance of entrepreneurship in innovation and problem-solving.	10%	3	Expert talks, brainstorming sessions, and case studies.
Unit 2 Idea Generation and Feasibility Study: Stages of POC, TRL, MRL, , developing Minimum Viable Products (MVP), assessing product-market fit, and pricing strategies.	20%	6	Interactive mentoring sessions, group brainstorming, and discussions.
Unit 3 Values, Ethics, and Standards: Importance of values in professional and personal growth. Sustainable solutions, eco-friendly systems, and understanding of BIS standards and their role in innovation and industry.	10%	3	Expert talks and group discussion
Unit 4: Tinkering and Prototyping: Hands-on project work in groups to develop solutions for identified problems. Projects will include:	50%	15	Practical tinkering sessions, faculty
Physical Prototypes for engineering and science students. Conceptual Modules (e.g., software, programs) for IT students. Business Cases or Models for management students. Students will work closely with faculty mentors to brainstorm, design, and create functional prototypes or			mentoring

models.			

Learning Resources	
1.	Textbook: N/A – The course relies on expert experiential learning and practical activities.
2.	Reference books 1."The Lean Startup" by Eric Ries 2."Zero to One" by Peter Thiel 3."Intellectual Property Rights: Unleashing the Knowledge Economy" by Prabuddha Ganguli
3.	Journal Articles from Harvard Business Review and MIT Sloan Management Review.
4.	Periodicals Business Standard, Economic Times, and Forbes articles on entrepreneurship and innovation.
5.	Other Electronic resources TED talks, and online courses on prototyping and entrepreneurship.

Sr No	Evaluation Component	Marks
1	**Continuous Evaluation Component**	**50**
A	Attendance	10
B	Progress Report Presentation - Problem identification, Ideation & Initial Design	15
C	Progress Report Presentation - Progress Review and Prototype Development	15
D	Expert Session Takeaway Report	10
2	**End Semester Component**	**50**
A	Final Project Presentation and Demonstration	30
B	Viva-Voce	20

Course Outcomes	CO1: Explain fundamental concepts of verbal and non-verbal communication in academic and professional contexts. CO2: Apply appropriate writing techniques to prepare letters, reports, and short documents. CO3: Demonstrate effective oral communication skills through presentations, group discussions, and role plays. CO4: Assess cultural and ethical factors influencing communication in organizational settings. CO5: Use digital tools and platforms to communicate professionally in virtual and technology-enabled environments.
	CO1: Explain fundamental concepts of verbal and non-verbal communication in academic and professional contexts. CO2: Apply appropriate writing techniques to prepare letters, reports, and short documents.

	CO3: Demonstrate effective oral communication skills through presentations, group discussions, and role plays. CO4: Assess cultural and ethical factors influencing communication in organizational settings. CO5: Use digital tools and platforms to communicate professionally in virtual and technology-enabled environments.

	sustainability in innovation.
	3. Students will work effectively in teams, demonstrating collaboration, communication, and leadership skills.
	4. Students will connect theoretical knowledge with

	practical applications through expert talks and hands-on tinkering activities
Additional Information to enhance learning	**Expert Talks**: Delivered by professionals and industry leaders on topics such as entrepreneurship, IPR, and sustainability. **Hands-On Tinkering Projects:** Guided by faculty mentors, with resources provided by GUIITAR.

COURSE CODE BBA 301	COURSE NAME Cost and Management Accounting	SEMESTER III

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Tutorial	Practical	Total Hours	Lecture	Tutorial	Practical	Total Credit
3	1	0	4	3	1	0	4

Course Prerequisites	Basic Information about Finance and Account Terminology
Course Category	Compulsory
Course focus	Skills
Rationale	1. To familiarize the learners with the basic concepts and processes used to determine product costs and ascertain Material, Labour and Overhead costs. 2. To enrich the knowledge of the learners in knowing and applying various tools like ratio analysis, cash flow statement, marginal costing for analyzing the financial statements for managerial information 3. To provide with the basic understanding of budgetary control 4. To develop the knowledge of the learners to understand and prepare a management report.
Course Revision/ Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	1.Understand concepts and tools of cost and management accounting including cost sheet, material, labour and overhead costing. 2.Apply marginal costing, break-even analysis and budgetary control techniques for managerial decisions. 3.Analyze financial statements using ratio, trend and comparative analysis. 4.Prepare cash flow statements and management reports for planning and control.

Course Content	Weightage	Contact Hours
Unit 1:Introduction to Cost and Management Accounting Definitions, features, objectives, functions, scope, advantages and limitations. Relationship and differences between Cost accounting, Management accounting and Financial Accounting. Cost Concepts-Cost classification – Elements of cost - Preparation of cost sheet and quotation. Material cost- direct and indirect material cost, Inventory control techniques levels, EOQ, ABC analysis. Issue of materials to production methods, LIFO and Average methods. Labour cost: direct and indirect labour cost methods of payment of wages including incentive plans - Halsey and Rowan plan, Tailors Piece Rate method. Overheads: features, classification, methods of allocation and apportionment of overheads, primary and secondary distributions.	**25%**	**15**
Unit 2: Marginal Costing and Budgetary Control Marginal Costing-Meaning - Importance - Marginal Cost Equation - Difference between Marginal costing and Absorption costing - Break Even Analysis and Importance - Break even chart- P/V ratio - Cost Volume Profit Analysis- Margin of Safety-Angle of Incidence-	**25%**	**15**
Problems in Marginal costing. Budgets - Meaning and importance - Budgetary Control-Meaningand Importance-Types of Budgets, practical problems - Flexible Budget and cash Budget,		

Unit 3 Financial Statement Analysis Comparative Income Statements and Balance Sheets- Common Size Income Statements and Balance Sheet Analysis- Trend Analysis. Ratio Analysis – Introduction, Classification & Interpretation of Ratios-Liquidity ratios, Solvency ratios, Proprietary ratios, Profitability ratios, Leverage ratios and Turnover ratios.	**25%**	**15**
Unit 4:Cash Flow Statement and Management Reporting Introduction- Concept of Cash- Sources of cash flow Cash from operation- cash from Financing and cash from investment- Inflow and outflow of cash- Preparation of cash flow statements with adjustments. Management Reporting – Meaning and Definitions of reports- Objectives and Purpose Reports to top-level management – Reports to lower-level management- Sample Reports	**25%**	**15**

Learning Resources	
1.	**Textbook:** (Latest Edition): • Arora, M. N. Cost and Management Accounting, New Delhi: Himalaya Publishing House.• Jain, S.P., & Narang, K.L. Cost Accounting. Principles and Practice, New Delhi: Kalyani Publishers.
2.	**Reference Books:** • Kishor, R.M. Cost and Management Accounting. New Delhi: Taxman Allied Services.• Pillai, R.S.N, Bagavathi, V., Cost Accounting. New Delhi: Sultan Chand. • Arora, M.N. Management Accounting, New Delhi: Himalaya Publishing House • Lal, J. Srivastav, Seema., Singh, Manisha. Cost Accounting: Test, Problems and Cases, New Delhi: Tata McGraw Hill Education
3.	**Journals & Periodicals:** Journal of Accounting Research
	2. Contemporary Accounting Research 3. Accounting, Organisations and Society
4.	**Other Electronic Resources:** ther Electronic Resources: • https://accountinginfocus.com/managerial-accounting-2/introduction managerial-accounting-2/what-is-managerial-accounting/ • https:/ objectives-and-what-is-managerial-accounting-CIrg0 • https:/ • https://courses.lumenlearning.com/wm-accountingformanagers/chapter/key components-of-managerial-accounting/

Evaluation Scheme	**Total Marks: 100**			
Mid Semester Marks	20 marks			
End Semester Marks	40 marks			
Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	

		Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	CO1: Explain cost concepts, elements of cost and preparation of cost sheet. CO2: Apply marginal costing, CVP analysis and budgetary control techniques. CO3: Analyze financial performance using ratio and trend analysis. CO4: Prepare cash flow statements and management reports for decision-making.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	1	1	1	3
CO3	3	1	1	1	3
CO4	3	1	1	2	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA 302	COURSE NAME Legal and Ethical issues in business	SEMESTER III

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Tutorial	Practical	Total Hours	Lecture	Tutorial	Practical	Total Credit
3	1	0	4	3	1	0	4

Course Prerequisites	Basic knowledge of business concepts and management principles: Familiarity with general law and ethics, along with an understanding of organizational structures and business operations, will be beneficial for grasping the legal and ethical issues discussed in the course.
Course Category	Basic Core Course
Course focus	Law and ethics in business, legal principles governing contracts, sales, leases, and employment law, decision-making processes, corporate governance, and social responsibility, with a focus on global ethical dilemmas and frameworks.
Rationale	1. The course aims to provide students with an understanding of key legal and ethical issues in the business context of India 2.The course will help students analyze ethical dilemmas in business decisions 3.The course will help the students understand the legal and regulatory aspects of business ethics that concern the financial, competitive and charitable responsibilities of organisatons. 4.The course will help the students gain knowledge about the ways in which organizational and individual factors impact business ethics
Course Revision/ Approval Date:	
Course Objectives (As per Blooms' Taxonomy)	To recall key concepts of business law, including the elements and types of contracts, and the role of business ethics in organizations. To understand the importance of business law and ethics in managing business operations and addressing ethical challenges faced by organizations and their stakeholders.
	To apply principles of business law to real-world business situations such as contract formation, sales, leases, and liability issues. To analyze ethical dilemmas in business contexts by considering legal and moral perspectives and proposing appropriate solutions.

Course Content	Weightage (%)	Contact hours
Unit 1: Introduction to Business Law Business law – definition, scope, importance of understanding the role of law in business; Elements of a contract – offer and acceptance, consideration, contractual capacity; Essentials of a valid contract; Types of contracts; Performance obligations; Types of contract breaches and remedies; Product liability and consumer protection laws; Business torts; Employment law	**25%**	**15**
Unit 2: Sales and Leases	**25%**	**15**
Formation of Sales Contract: Contracts for Leasing Goods, Title and Risk of loss, Performance and remedies, Warranties and Product liability; Introduction to Negotiable Instruments, Negotiability, Negotiation and Holders in due course; Liability and discharge, Bank customer Relations/Electronic Fund Transfers.		
Unit 3: Introduction to Business Ethics The definition and importance of business ethics, business ethics in the Indian context;	**25%**	**15**

Institutionalization of Business Ethics in the organization, benefits of Ethical Conduct in Business, Ethical Issues and Stakeholder Concerns; Social Responsibility and Regulatory Framework: Corporate social responsibility; Environment & business; Model curriculum for UG Degree in BBA 76 Issues related to Business Ethics in marketing, finance & human resource functions. Ethical responsibilities of multinational corporations; Ethical dilemmas facing businesses globally including issues related to discrimination, human rights, environmental impact, and intellectual property.		
Unit 4: The Ethical Decision-making Process Philosophical approaches to ethical decision making; Ethics & Religious approaches; Moral & Legal aspects of ethical decision making: Ethical aspects in Bhagvat Gita; Kautaliya's Arthshastra; Swami Vivekanand on Ethics; Swami Vivekanand's message to the youth of India; Ethical Decision Making in Organizations: Individual and Organizational Factors Influencing Ethical Decisions; Karmyog, Indian philosophy of work ethics; Kautilya's Arthshastra; Introduction to Integral Humanism; Ethical Decision-Making Frameworks to Improve Decision-Making Outcomes; Corporate Governance and its Impact on Ethical Decision-Making; Whistleblowing; Conflict Resolution.	**25%**	**15**

Learning Resources	
5.	**Textbook:** (Latest Edition): 1. Tulsian, P. C. Business and Corporate Laws. S. Chand Publishing. 2. Fernando, A.C. Business Ethics and Corporate Governance. Pearson 3. Bayern, S. Business Law Beyond Business. J. Corp. L., 46, 521. 4. Vivekanand, S. To the Youth of India. Advaita Ashrama.
6.	**Reference Books:**
7.	**Journals & Periodicals:**
8.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**		
Mid Semester Marks	20 marks		
End Semester Marks	40 marks		
Continuous Evaluation 40 marks			
	Class Participation	10 marks	
	Quiz	5 marks	
	Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
	Presentation	10 marks	

Course Outcomes	CO1: Remember the key concepts of business law, including the elements and types of contracts, and the role of business ethics in organizations. CO2: Understand the importance of business law and ethics in managing business operations and addressing ethical challenges faced by organizations and their stakeholders. CO3: Apply business law principles to real-world scenarios such as contract formation, sales, leases, and liability issues in business transactions. CO4: Analyze ethical dilemmas in business situations by considering legal and moral perspectives to propose effective solutions.

	CO5: Evaluate legal and ethical practices in organizations.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	2	1	1
CO2	3	1	3	1	2
CO3	3	1	2	1	3
CO4	3	1	3	1	3
CO5	3	1	3	1	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA 303	COURSE NAME Human Resource Management	SEMESTER III

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Tutorial	Practical	Total Hours	Lecture	Tutorial	Practical	Total Credit
3	1	0	4	3	1	0	4

Course Prerequisites	Students enrolling in this course should have a basic understanding of management principles and organizational structures. Familiarity with fundamental business concepts, communication skills, and an interest in understanding employee behavior and workplace dynamics will help students effectively engage with the course material.
Course Category	Compulsory
Course focus	This course focuses on the strategic and operational aspects of managing people within organizations. It covers key topics such as recruitment, training and development, performance management, employee relations, and compensation. The course emphasizes aligning HR practices with organizational goals, fostering a productive work environment, and ensuring compliance with labor laws. Through case studies, role-plays, and practical exercises, students will gain the skills to address real-world HR challenges effectively.
Rationale	1.The course will enable students to understand how HR plays a functional role, needed for organizational effectiveness and management. 2. Understand the difference between the functional and strategic roles of HR 3.Students will analyse the need for HR planning, Innovation, use of technology, and sector-specific HR needs 4. Understand the innovation in HRM and best practices
Course Revision/ Approval Date:	
Course Objectives (As per Blooms' Taxonomy)	Explain and differentiate the key concepts of Human Resource Management (HRM) and Strategic Human Resource Management (SHRM).
	Analyze emerging recruitment and selection trends and illustrate their application in organizational HR practices. Apply various methods of training and development to design practical learning interventions in organizational settings Design employee compensation strategies and evaluate approaches to maintain effective employee relations within an organization Critically analyze industrial relations policies and labor-management negotiation strategies to make informed organizational recommendations

Course Content	Weightage	Contact hours
Unit 1: The Nature of HRM Human Resource Management—An Introduction; Human Resource Business Partnership HRM; HRM policies, HRM in a globally competitive environment; Functional HRM; strategic human resource management	**25%**	**15**
Unit 2: Plan, Acquire, Develop, Career Management Employee life cycle approach, Human Resource Planning;	**25%**	**15**

Recruitment and Selection; Training and Development; Competency Management; Career Management Talent Management, Managing the GIG employees and Virtual employees and team		
Unit 3: Engagement, Performance, compensation management, Industrial Relations, Compliance, Employment relations	**25%**	**15**
Changing nature of Employee Engagement; Performance Management; Compensation and Benefits; Compensation for Special Groups, Industrial Relations; Workplace Laws and Regulations; Employment Relations		
Unit 4: Technology, HR Analytics, Innovation Human Resource Information and Analytics; Human Resource Management Innovations; Human Resource Management in Small and Medium Enterprises; Human Resource Management in the Service Sector, Organization Transformation and the Human Resource Leadership; Diversity, Equity and Inclusion; WorkplaceWellness, sustainability goals and HRM, Green HRM and challenges.	**25%**	**15**

Learning Resources	
1.	**Textbook:** (Latest Editions): 1. DeNisi, A.S.,Griffin, R.W and Sarkar, Anita Human Resource Management, Cengage Learning 2. Sengupta Amitabha, Human Resource Management: Concepts, Practices, and New Paradigms 3. Cascio, Wayne F., Managing Human Resources, Tata McGraw Hill, New Delhi
2.	**Reference Books:** 1. DeCenzo, David A, and Stephan P. Robbins, Fundamentals of Human Resource Management, Wiley India, New Delhi **2.** Bhattacharyya, Dipak Kumar, Human Resource Management, Excel Books, New Delhi
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**			
Mid Semester Marks	20 marks			
End Semester Marks	40 marks			
Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	1.CO1: The learner will be able to apply

	fundamental HRM concepts, functions, and evolution to organizational human resource contexts 2.CO2: The learner will be able to apply human resource planning, job analysis, job design, recruitment, selection, and succession planning processes , including the use of social media for talent acquisition 3.CO3: The learner will be able to implement training and development methods and performance appraisal techniques to enhance employee performance and organizational effectiveness 4.CO4: The learner will be able to analyze and develop compensation and retention strategies based on compensation systems and employee separation practices 5.CO5: The learner will be able to assess the role of trade unions and collective bargaining mechanisms in resolving industrial disputes and promoting harmonious industrial relations

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	1
CO2	3	3	1	1	2
CO3	3	3	1	1	2
CO4	3	3	1	1	3
CO5	3	3	2	2	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA 304	**COURSE NAME** Basics of DBMS-SQL	**SEMESTER** III

Teaching Scheme (Hours)				**Teaching Credit**			
Lecture	**Practical**	**Tutorial**	**Total Hours**	**Lecture**	**Practical**	**Tutorial**	**Total Credit**
45	0	0	45	3	0	0	3

Course Pre-requisites	**Basic knowledge of Business**
Course Category	Core course
Course focus	Employability
Rationale	The subject "Database Management Systems" aims to equip students with a comprehensive understanding of database concepts, design principles, and data organization techniques. It emphasizes the significance of structured data management in various applications and introduces students to relational and entity-relationship models. The subject prepares students for efficient and effective data handling in modern business and technological environments.
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives (As per Blooms' Taxonomy)	1. To understand and explain the fundamental concepts of Database Management Systems and their significance in modern data-driven applications. 2. To analyze and apply the Relational Model and ER Model for organizing data, enforcing constraints, and ensuring integrity in database design. 3. To demonstrate proficiency in applying normalization techniques to eliminate redundancy and ensure data integrity in relational databases. 4. To evaluate and compare different file organization techniques in DBMS for efficient data storage and access. 5. To apply theoretical knowledge and practical skills to design and develop a real-world database application using a Database Management System.

Course Content (Theory)	**Weightage**	**Contact hours**
Unit 1: The Basic Concepts Need for a Database Management System, The file based system, Limitations of file based system, The Database Approach, The Logical DBMS Architecture, Three level architecture of DBMS or logical DBMS architecture, Mappings between levels and data independence, The need for three level architecture, Physical DBMS Architecture, DML Precompiler, DDL Compiler, File Manager, Database Manager, Query Processor,Database Administrator, Data files indices and Data Dictionary, Commercial Database Architecture, Data Models	**20%**	**9**
Unit 2: Relational and ER Models The Relational Model, Domains, Attributes, Tuple and Relation, Super keys Candidate keys and Primary keys for the Relations, Relational Constraints, Domain Constraint, Key Constraint, Integrity Constraint, Update Operations and Dealing with Constraint Violations, Relational Algebra, Basic Set Operation, Cartesian Product, Relational Operations, Entity Relationship (ER) Model, Entities, Attributes, Relationships, More about Entities and Relationships, Defining Relationshipfor College Database, E-R Diagram, Conversion of E-R Diagram to Relational Database	**20%**	**9**
UNIT:3 Database Integrity and Normalisation Relational Database Integrity, The Keys, Referential Integrity, Entity Integrity, Redundancy and Associated Problems, Single-Valued Dependencies, Single-Valued Normalisation, The First Normal Form, The Second Normal Form, The Third Normal Form, , Dependency	**20%**	**9**

Preservation,Lack of redundancy,Rules of Data Normalisation, Eliminate Repeating Groups, Eliminate Redundant Data, Eliminate		
Columns Not Dependent on K		
Unit 4: File Organisation in DBMS Physical Database Design Issues, Storage of Database on Hard Disks, File Organisation and Its Types, Heap files (Unordered files), Sequential File Organisation, Indexed (Indexed Sequential) File Organisation, Hashed File Organisation, Types of Indexes, Index and Tree Structure, Multi-key File Organisation, Need for Multiple Access Paths, Multi-list File Organisation, Inverted File Organisation, Importance of File Organisation in Databases	**20%**	**9**
Unit 5: Practical Work Designing E-R models of given system - Normalization of given relational schemas Application **Development:** Development of a Hospital Management System Need to Develop the Hospital Management System (An HMS), Creating a Databasefor HMS, Developing Front End Forms, Reports, Using Queries and Record set	**20%**	**9**

Course Outcomes:	**Blooms' Taxonomy Domain**
CO1: Recall and explain the basic concepts of Database Management Systems and their role in effective data management CO2: Analyze and compare the Relational Model and ER Model and convert an ER diagram into a relational database schema. CO3: Apply normalization rules to eliminate redundancy and improve data integrity in a given relational database. CO4: Evaluate and compare different file organization techniques for efficient data storage and access. CO5: Create a functional Hospital Management System using a Database Management System, including database design, front-end forms, and query implementation.	Recall Analyze Apply Evaluate Create

Learning Resources	
1.	Textbooks: Database Systems - Design, Implementation and Management 4th Edition :Rob & Coronel (Course Technology-Thomson Learnin g
2.	Reference Books:
	1. Database Management System : Vipin Desai (Galgotia Pub.) 2.Modern Database Management 7th Edition : Hoffer, Prescott and McFadden, Pearson Education. Database Management System : Korth (Tata McGraw Hill) 1. Journal of Computer and System Sciences 2. International Journal of Computers and Applications 3.Indian Journal of computer science and engineering,
3.	Other Electronic Resources:

Evaluation Scheme	**Total Marks: 100**
Mid Semester Marks	20 marks
End Semester Marks	40 marks
Continuous Evaluation 40 marks	

		Attendance	5 marks	
		MCQs	10 marks	
		Open Book Assignment	15 marks	
		Article Review	10 marks	

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	1	1	1	2
CO3	3	1	1	1	2
CO4	3	1	1	1	2
CO5	3	1	1	1	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 No

COURSE CODE BBA 305	COURSE NAME PROGRAMMING with C/C++	SEMESTER II

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Practical	Tutorial	Total Hours	Lecture	Practical	Tutorial	Total Credit
45	0	0	45	3	0	0	3

Course Pre-requisites	Basic Information about Information Terminology
Course Category	Business Analytics
Course focus	Skills
Rationale	By learning C, Students can be able to understand and visualize the inner workings of computer systems. This can include aspects like allocation and memory management along with their architecture and the overall concepts that drive programming.
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives	1. To understand fundamental computer concepts and number systems relevant to programming 2. To develop the ability to write, compile, and debug C programs 3. To develop the ability to write, compile, and debug C program 4. To understand memory management concepts using pointers in C 5. To understand and design decision structures, loops, and functions in C programs

Course Content (Theory)	Weightage	Contact hours
Unit 1Introduction to Computers: Computer Systems, Computing Environments, Computer Languages, Creating and running programs, Program Development. Introduction to the C Language: Background, C Programs, Identifiers, Types, Variables, Constants, Input / Output, Operators, Expressions, Precedence and Associativity, Expression Evaluation, Type conversions, Statements- Selection Statements(making decisions) – if and switch statements, Repetition statements (loops)-while, for, do-while statements, Loop examples, other statements related to looping – break, continue,Simple C Program examples.	20%	**9**
Unit 2: Functions-Designing Structured Programs, Functions, user defined functions, inter function communication,Standard functions, Scope, Storage classes-auto, register, static, extern, scope rules, type qualifiers, recursion- recursive functions, Limitations of recursion, example C programs, Preprocessor commands. Arrays – Concepts, using arrays in C, inter function communication, array applications, two – dimensional arrays, multidimensional arrays, C program examples.	20%	**9**
Unit 3: Pointers – Introduction (Basic Concepts), Pointers for inter function communication, pointers to pointers, compatibility, Pointer Applications-Arrays and Pointers, Pointer Arithmetic and arrays, Passing an array to a function, memory allocation functions, array of pointers, programming applications, pointers to void, pointers to functions. Strings – Concepts, C Strings, String Input / Output functions, arrays of strings, string manipulation	20%	**9**

functions, string / data conversion, C program examples.		
Unit 4: Function: Function definition and function prototype. Function call by value and call by reference. Pointer to a function,	20%	**9**
Unit 5 Bubble sort,selectionsort,linder search,and binary search. Scope rules storage classes- Bit wise operations Data Files: Formatted, Unformatted and text files , Command line arguments	20%	**9**

Instructional Method and Pedagogy: (Max. 100 words)
Projects/ Assignments/ Quizzes/ Class participation, Various Practicals

Course Outcomes:	**Bloom's Taxonomy Domain**
CO1: Apply basic computer concepts and number systems while developing C programs CO2: Write, compile, and debug structured C programs using standard programming constructs CO3: Explain basic terminology and syntax used in C programming CO4: Analyze memory usage in C programs using pointers and dynamic allocation CO5: Design C programs using decision structures, loops, and functions	Apply Write, Explain Analyze Design

Learning Resources	
1.	Reference Books: 1. C programming By Ritchie & Kernighan 2. Byron S Gottfried, "Programming with C", Schaum‟s Outlines, Second Edition, Tata McGraw-Hill, 2006. 3. Dromey R.G., "How to Solve it by Computer", Pearson Education, Fourth Reprint,2007.
4. 5.	Kernighan,B.W and Ritchie,D.M, "The C Programming language", Second Edition,PearsonEducation, 2006. C& Data structures – P. Padmanabham, Third Edition, B.S. Publications.
2.	Journals, Periodicals, Reference 1. Journal of Computer and System Sciences 2. International Journal of Computers and Applications 3. Indian Journal of computer science and engineering,
3.	Other Electronic Resources:

Evaluation Scheme Theory: Mid semester	**Total Marks** 20 marks

Marks
Theory: End Semester 40 marks
Marks
Theory: Continuous

Evaluation Component	Attendance	05 marks
Marks		
	MCQs	10 marks
	Open Book Assignment	15 marks

	Article Review	10 marks
	Total	**40 Marks**

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	1	1	1	2
CO3	3	1	1	1	1
CO4	3	1	1	1	2
CO5	3	1	1	1	2

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE **SEC 301**	**COURSE NAME** **Management Information System (MIS)**	**SEMESTER** III

	Teaching Scheme (Hours)				**Teaching Credit**			
	Lectures	**Tutorial**	**Practica l**	**Total Hours**	**Lectures**	**Tutorial**	**Practica l**	**Total Credit**
	2	0	8	10	2	0	4	4

Course Prerequisites	Basic understanding of business operations and management. Familiarity with basic concepts of information technology and systems.	
Course Category	Skill Enhancement	
Course focus	• Fundamentals of Management Information Systems (MIS). • Database management systems and their applications. • Information system applications such as DSS, knowledge management, and e-business. • Project management and its role in information systems. • Emerging business trends such as outsourcing, e-commerce, and digital economy.	
Rationale	The course aims to provide students with comprehensive knowledge and practical skills in managing information systems (MIS), database management, information system applications, and project management using modern tools and methodologies. Students will learn to analyze, design, and implement effective MIS solutions in various business contexts.	
Course Revision/ Approval Date:		

Course Objectives (As per Blooms' Taxonomy)	To understand the basic concepts, types, dimensions, and components of Management Information Systems (MIS), and to evaluate the benefits and evolution of IT infrastructure in the digital era. To apply database management principles by setting up and managing DBMS packages, creating Entity–Relationship diagrams, and understanding data models, data warehouses, and database administration techniques. To analyze various MIS applications, including Decision Support Systems (DSS), Group Decision Support Systems (GDSS), and knowledge management systems, and to develop e-commerce solutions using enterprise models, business process reengineering, and digital communication strategies. To evaluate project management objectives and methodologies, including agile practices such as SCRUM, and to manage projects effectively by controlling risk factors and addressing ethical, social, and political issues in the information era.

Course Content	**Weightage**	**Contact hours**
Unit 1: Fundamentals concepts of MIS Basics concepts of MIS/ Types of MIS, Dimension and components of IS, Benefits of MIS, IT infrastructure, and IT infrastructure evolution, Components of IT infrastructure, New approaches for system building in the digital firm era	**25%**	**15**
Unit 2: Database management system: Objectives of database approach- Characters of database Management systems data processing system- Components of DBMS packages - Database administration- Entity – Relationship (conceptual)	**25%**	**15**
Unit 3: Information system applications:	**25%**	**15**
MIS applications, DSS – GDSS - DSS applications in E enterprise - Knowledge Management System and Knowledge-Based Expert System - Enterprise Model System and E-Business, E-Commerce, E-communication, Business Process		

Reengineering.		
Unit 4: Managing Projects Objectives of project management, Fundamentals of project management information systems with agile methodologies -Introduction of SCRUM, Roles and meetings, User stories, Project risk, Controlling risk factors, Ethical, social, and political issues in the information era.	**25%**	**15**

Learning Resources	
1.	**Textbook:** (Latest Editions): 1. Laudon, K. C., & Laudon, J. P.. Management information systems: managing the digital firm. Fifteenth Edition. Pearson. 2. Coronel, C., & Morris, S.. Database systems: design, implementation, & management. Cengage Learning. 3. Olson, D. . Information systems project management (First;1; ed.). US: Business Expert Press. 4. Schiel, J. The ScrumMaster Study Guide. Auerbach Publications. 5. The Scrum Master Guidebook: A Reference for Obtaining Mastery" , CHANDAN LAL PATARY 6. Scrum: The Art of Doing Twice the Work in Half the Time", Jeff Sutherland, J.J. Sutherland 7. Stair, R., & Reynolds, G. Fundamentals of information systems. Cengage Learning.
2.	**Reference Books:** **Management Information Systems: Managing the Digital Firm** by Kenneth C. Laudon & Jane P. Laudon **Database Management Systems** by Raghu Ramakrishnan and Johannes Gehrke **Information Systems for Managers: Texts and Cases** by G. Shainesh, V. G. Narayan **Modern Project Management: Providing the Skills to Lead Projects to Success** by James P. Lewis **E-Commerce 2020: Business, Technology, Society** by Kenneth C. Laudon & Carol Guercio Traver
3.	**Journals & Periodicals:** **Journal of Management Information Systems** **Information Systems Research** **MIS Quarterly** **Journal of Database Management** **International Journal of Project Management**
4.	**Other Electronic Resources:** **Google Scholar** **ScienceDirect** **IEEE Xplore Digital Library** **JSTOR** **ResearchGate**

Evaluation Scheme	**Total Marks: 100**
Mid Semester Marks	20 marks
End Semester Marks	40 marks
Continuous Evaluation 40 marks	

		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	CO1: Recall the core concepts of Management Information Systems (MIS), database management, and emerging business trends. CO2: Explain how MIS and database systems support effective decision-making and improve business operations. CO3: Apply information systems in project management, including the use of agile methodologies and risk control strategies. CO4: Analyze the impact of technological advancements such as e-commerce, BPO, and KPO on modern business practices and management strategies. CO5: Evaluate the efficiency and effectiveness of technology-aided organizations.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	1	1	1	2
CO3	3	3	1	1	3
CO4	3	1	1	1	3
CO5	3	2	1	1	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE VACC301	COURSE NAME Yoga and Physical fitness	SEMESTER III

Teaching Scheme (Hours)				Teaching Credit			
Lectures	Tutorial	Practica l	Total Hours	Lectures	Tutorial	Practica l	Total Credit
0	0	8	8	0	0	4	2

Course Prerequisites	Physical
Course Category	Compulsory
Course focus	Skills
Rationale	• Understand yoga's significance and its practical applications for holistic well-being. • Explore subtle energy systems and their role in enhancing health through yogic practices. • Examine various paths of yoga to foster self-realization and spiritual growth. • Master the Eight Limbs of Yoga for physical, mental, and spiritual harmony. • Apply yogic principles to manage psycho-somatic ailments and promote resilience.
Course Revision/ Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	CO1 : Remembering CO2: Understanding CO3: Applying CO4: Analyzing CO5: Evaluating CO6: Creating

Course Content	Weightage	Contact hours
Unit 1: • Yoga: Meaning and definition • Importance of yoga in 21st century • Introduction to Yogic Anatomy and Physiology • Yoga & sports, Yoga for healthy lifestyle • Types of Yoga: - Hatha yaga, laya yoga, mantra yoga, • bhakti yoga, karma yoga, jnana yoga, raj yoga • Study of Chakras, Koshas, Pranas, Nadis, Gunas, Vayus and its application in Yogic practices. • Ashtang Yoga: - Yama, niyama, asana, pranayama, Pratyahar, dharna, dhyan, Samadhi : Benefits, Utilities & their psychological impact on body and mind. According to yoga concept of normality in modern psychology, concept of personality & its development, yogic management of psycho-somatic ailments: frustration, anxiety, depression		
Unit 2: • Sports for Physical Fitness: Meaning and definition • Physical Activity – Concept, Benefits of Participation in Physical Activities• Components and Significance of Physical Fitness -Health, Skill and Cosmetic Fitness • Types of Physical Activities – Walking, Jogging, Running, Calisthenics, Rope Skipping, Cycling, Swimming, Circuit Training, Weight training, Adventure Sports		
• Principles of Physical Fitness, Warming Up, Conditioning, Cooling Down, Methods to Develop and Measure Health and Skill related components of Physical Fitness • Measurement of Health Related Physical Fitness (HRPF)		

Unit 3: • Physical Wellness: Concept, Components • Types of wellness: psychological, social, emotional, and spiritual. • Significance with reference to Positive Lifestyle 2.2• Concepts of Quality of Life and Body Image • Factors affecting Wellness • Wellness Programmes		
Unit 4:Nutrition and Weight Management • Concept of Nutrients, Nutrition, Balanced Diet, Dietary Aids and Gimmicks • Energy and Activity- Calorie Intake, Energy Balance Equation • Obesity - Concept, Causes, Obesity-Related Health Problems • Weight Management through Behavioural Modifications		

Learning Resources	
1.	**Textbook:** (Latest Editions): • Anand O P. Yog Dawra Kaya Kalp. Sewasth Sahitya Perkashan. Kanpur. • Brown, J.E. Nutrition Now Thomson-Wadsworth. • Corbin et.al.Fitness & Wellness-Concepts. McGraw Hill. Publishers. New York. U.S.A • Corbin, C. B., G. J. Welk, W. R Corbin, K. A. Welk, Concepts of Physical Fitness: Active Lifestyle for Wellness. McGraw Hill, New York, USA. •Hoeger, W W K and S.A. Hoeger. Principles and Labs for Fitness and Wellness, Thomson Wadsworth, California, USA. • Hoeger, W.W. & S. Hoeger Fitness and Wellness. 7th Ed. Thomson Wadsworth, Boston, USA.• Kamlesh, M. L. & Singh, M. K., Physical Education (Naveen Publications). • Kansal, D.K. Text book of Applied Measurement, Evaluation & Sports Selection. Sports & Spiritual Science Publications, New Delhi. • Kumari, Sheela, S., Rana, Amita, and Kaushik, Seema,, Fitness, Aerobics and Gym Operations, Khel Sahitya, New Delhi
	• Lumpkin, A. Introduction to Physical Education, Exercise Science and Sports Studies, McGraw Hill, New York, U.S.A. • Sarin N) Yoga Dawara Rogon Ka Upchhar.Khel Sahitya Kendra • Savard, M. and C. Svec The Body Shape Solution to Weight Loss and Wellness: The Apples & Pears Approach to Losing Weight, Living Longer, and Feeling Healthier. Atria Books, Sydney, Australia. • Siedentop, D. Introduction to Physical Education, Fitness and Sport, McGraw Hill Companies Inc., New York, USA. • Sri Swami Ramas. Breathing. Sadhana Mandir Trust.Rishikesh. • Swami Ram Yoga & Married Life Sadhana Mandir Trust. Rishikesh
2.	**Reference Books:**
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**
Mid Semester Marks	20 marks
End Semester Marks	40 marks

Continuous Evaluation 40 marks					

		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	
Course Outcomes				

COURSE CODE VACC302	COURSE NAME Sports	SEMESTER III

Teaching Scheme (Hours)				Teaching Credit			
Lectures	**Tutorial**	**Practica l**	**Total Hours**	**Lectures**	**Tutorial**	**Practica l**	**Total Credit**
0	0	8	8	0	0	4	2

Course Prerequisites	Physical Strength
Course Category	Elective
Course focus	Interest in Sports
Rationale	• Understand the fundamental principles and concepts of sports management,including its scope, organizational structure, and ethical considerations. • Analyse the role of marketing and sponsorship in the sports industry, with a focus on branding, target audience segmentation, and event management. • Develop proficiency in financial management techniques specific to the sports industry, including revenue generation, cost management, and investment strategies. • Apply theoretical knowledge to practical scenarios through case studies
	and projects, fostering critical thinking and problem-solving skills in sports management contexts. • Explore the application of analytics and technology in sports, including performance evaluation, strategic decision-making, and fan engagement.
Course Revision/ Approval Date:	
Course Objectives (As per Blooms' Taxonomy)	CO1 : Remembering
	CO2: Understanding CO3: Applying CO4: Analyzing CO5: Evaluating CO6: Creating

Course Content	Weightage	Contact hours	
Unit 1:Introduction to Physical Education in The Contemporary Context (Any Two) Learn and demonstrate the technique of Surya Namaskar Develop Physical Fitness through Calisthenics / Aerobics / Circuit-Training / Weight-Training and demonstrate the chosen activity Select any one game available in the college and learn different techniques involved in its play			
Unit 2: Core Physical Education-: Fitness, Wellness and Nutrition (Any Two) Measurement of Fitness Components – Leg-raise for Minimal Strength (Muscular Strength); Situps Muscular Endurance); Harvard Step Test, Run and Walk Test (Cardiovascular			

Endurance); Sit and Reach Test (Flexibility) Measuring height, weight, waist circumference and hip circumference Calculation of BMI (Body Mass Index) and Waist-Hip Ratio Engage in at least one wellness programme and write a report on it			

Unit 3:Core Physical Education-: Posture, Athletic Care and First Aid (Any Two) Demonstrate Stretching and Strengthening Exercises for Kyphosis, Scoliosis, Lordosis, Knock Knees, Bow Legs, Flat Foot, Back Pain and Neck Pain Illustration and Demonstration of Active and Passive Exercises Asanas with Therapeutic Value (Any five asanas): Karnapeedasana, Padmasana, Dhanurasana, Sarvangasana, Paschimottanasana, Chakrasana, Halasana, Matsyasana, Ardhmatsyendrasana, Usthrasana, Mayurasana, Shirshasana, Vajrasana, Practice P.R.I.C.E. in First Aid.		
Unit 4: Sports Administration & Management (Any Two)• Demonstration of Supervision activities in Sports Management.• Demonstration of skills of Management.		

• Demonstration of fixtures of various kinds in sports competitions.• Demonstration of technical and non-technical purchase procedure		

Learning Resources	
1.	**Textbook:** (Latest Editions): 1. Teaching Children Physical Education: Becoming a Master Teacher. Graham, G., Human Kinetics, Champaign, Illinois, USA. 2. Concepts of Physical Fitness: Active Lifestyle for Wellness, Corbin, C. B., G. J. Welk, W. R Corbin, K. A. Welk, McGraw Hill, New York, USA. 3. Teaching Today Health, Anspaugh, D.J., G. Ezell and K.N. Goodman, Mosby Publishers. 4. Drug Education Handbook on Drug Abuse in Sports, Beotra, Alka, Applied Nutrition Sciences, Mumbai 5. Sports Facility Management, Ammon,R., Southall, R.M. and Blair, D.A., West Virginia, USA: Fitness Information Technology Publishers
2.	**Reference Books:**
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**
Mid Semester Marks	20 marks
End Semester Marks	40 marks

Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	

Mapping of POs & COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	0	0	0	0	0	0	0
CO2	3	0	2	2	2	0	0	0
CO3	0	0	2	3	3	0	0	0
CO4	0	0	3	2	3	0	3	0
CO5	0	1	0	0	0	0	0	1

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE VACC304	COURSE NAME National Cadet Corps (NCC)	SEMESTER III

Teaching Scheme (Hours)				Teaching Credit			
Lectures	Tutorial	Practica l	Total Hours	Lectures	Tutorial	Practica l	Total Credit
0	0	8	8	0	0	4	2

Course Prerequisites	Interest
Course Category	Elective
Course focus	Based on Interest
Rationale	1.Understand the foundational role of drill in fostering discipline and leadership within a group, enabling effective command towards achieving common goals. 2.Appreciate the importance of grace and dignity in executing foot drill movements, recognizing their significance in enhancing performance and teamwork. 3.Comprehend the criticality of weapon handling and detailed safety measures, emphasizing the importance of accident prevention through strict adherence to safety protocols. 4.Develop an awareness of diverse terrain types and their strategic significance in battle craft, enabling informed decision-making and effective utilization of terrain features for tactical advantage.
Course Revision/ Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	CO1 : Remembering CO2: Understanding CO3: Applying CO4: Analyzing CO5: Evaluating CO6: Creating

Course Content	Weightage	Contact hours
Unit 1: Overview of NCC, its history, aims, objectives, and organizational structure, Incentives and duties associated with NCC cadetship; Maneuvers: Foot drill, Word of Command, Attention, and stand at ease, and Advanced maneuvers like turning and sizing; Parade formations: Parade line, open line, and closed line; Saluting protocols, parade conclusion, and dismissal procedures. Marching styles: style march, double time march, and slow march		
Unit 2: Weapon Training, Handling firearms, Introduction and characteristics of the .22 rifle; Handling Firearm techniques, emphasizing safety protocols and Best practices.		
Unit 3: Map Reading (MR): Topographical forms and technical terms, including relief, contours, and gradients, crucial for understanding terrain features; Cardinal points , magnetic variation and grid convergence		
Unit 4: Field Craft & Battle Craft (FC & BC): Fundamental principles and techniques essential for effective field and battle craft operations; Methods of judging distance, including estimation, pacing, and visual cues		

Learning Resources	
1.	**Textbook:** (Latest Editions): • DGNCC Cadet's Hand Book - Common Subjects -All Wings • Tiwari, R. NCC: Grooming Feeling of National Integration, Leadership and Discipline among Youth. Edwin Incorporation. • Chhetri, R.S. Grooming Tomorrows Leaders, The National Cadet Corps. • Directorate General National Cadet Corps . National Cadet Corps, Youth in Action. • Vanshpal, Ravi, The NCC Days, Notion Press
2.	**Reference Books:**
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**			
Mid Semester Marks	20 marks			
End Semester Marks	40 marks			
Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	
Course Outcomes				

Mapping of POs & COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	0	0	0	0	0	0	0
CO2	3	0	2	2	2	0	0	0
CO3	0	0	2	3	3	0	0	0
CO4	0	0	3	2	3	0	3	0
CO5	0	1	0	0	0	0	0	1

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE VACC305	COURSE NAME National Service Scheme (NSS)	SEMESTER III

Teaching Scheme (Hours)				Teaching Credit			
Lectures	Tutorial	Practica l	Total Hours	Lectures	Tutorial	Practica l	Total Credit
0	0	8	8	0	0	4	2

Course Prerequisites	Interest
Course Category	Elective
Course focus	Based on Interest
Rationale	1. To provide students with an understanding of the history, philosophy, and basic concepts of the National Service Scheme (NSS). 2.To familiarize students with the aims, objectives, and organizational structure of NSS. 3. To equip students with knowledge about NSS programmes, activities, and their relevance. 4. To develop an understanding of community mobilization techniques and their importance in NSS activities. 5. To cultivate an appreciation for volunteerism, shramdan (voluntary labor), and their role in community development initiatives.
Course Revision/ Approval Date:	

Course Objectives **(As per Blooms' Taxonomy)**	CO1 : Remembering CO2: Understanding CO3: Applying CO4: Analyzing CO5: Evaluating CO6: Creating

Course Content	Weightage	Contact hours
Unit 1: Introduction and Basic Concepts of NSS		
National Service Scheme (NSS) - history, philosophy, and fundamental concepts, aims and objectives, providing clarity on the organization's overarching goals. Symbols of NSS - Emblem, flag, motto, song, and badge; Organizational structure of NSS		
Unit 2: NSS Programmes and Activities Diverse programmes and activities conducted under the aegis of the National Service Scheme (NSS); Significance of commemorating important days recognized by the United Nations, Centre, State Government, and University; Examination of the methodology for adopting villages/slums and conducting surveys; Financial patterns of the NSS scheme		
Unit 3:Community Mobilization Dynamics of community mobilization within the framework of the National Service Scheme (NSS); Functioning of community stakeholders; The conceptual lens of community development.		
Unit 4: Volunteerism and Shramdan in the Indian Context: Roles and Motivations within the NSS Framework The ethos of volunteerism and shramdan (voluntary labour) within the cultural		

context of India and the framework of the National Service Scheme (NSS); Motivations and constraints shaping volunteer engagement; Role of NSS volunteers in initiatives such as the Swatch Bharat Abhiyan and Digital India		

Learning Resources	
1.	**Textbook:** (Latest Editions): 1. Ministry of Youth Affairs and Sports, Government of India. (2022). National Service Scheme (NSS) Manual. 2. Agarwalla, S. (2021). NSS and Youth Development. Mahaveer Publications 3. Bhattacharya, P. (2024). Stories Of NSS (English Version). Sahityasree. 4. Borah, R. and Borkakoty, B. (2022). NSS in Socioeconomic Development. Unika Prakashan. 5. Wondimu, H., & Admas, G. (2024). The motivation and engagement of student volunteers in volunteerism at the University of Gondar. Discover Global Society, 2(1), 1-16. 6. Saha, A. K. (2002). Extension Education–The Third Dimension Needs and Aspirations of Indian Youth. Journal of Social Sciences, 6(3), 209-214. 7. Mills, S. (2013). “An instruction in good citizenship”: scouting and the historical geographies of citizenship education. Transactions of the Institute of British Geographers, 38(1), 120–134. 8. Mishra, S. K., Sachdev, S., Marwaha, N., & Avasthi, A. (2016). Study of knowledge and attitude among college-going students toward voluntary blood donation from north India. Journal of blood medicine, 19-26.
	9. Mukherji, B. (2007). Community Development in India. Orient Longmans. 10. History Background of NSS and its Philosophy, Aims and Objectives 11. 12. In Defence of Nationalism 13. Unlocking Youth Potential for Nation Building: Strengthening NYKS and NSS 14.
2.	**Reference Books:**
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**			
Mid Semester Marks	20 marks			
End Semester Marks	40 marks			
Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	

Mapping of POs & COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	0	0	0	0	0	0	0
CO2	3	0	2	2	2	0	0	0
CO3	0	0	2	3	3	0	0	0
CO4	0	0	3	2	3	0	3	0
CO5	0	1	0	0	0	0	0	1

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE AECC301	Entrepreneurship Development	L	T	P	C
		2	0	0	2
Total Credits:02	**Total Hours in semester:30**	**Total Marks:100**			

1	Course Pre-requisites:Domain Knowledge business and new startup
2	Course Category: CBCS
3	Course Revision/ApprovalDate:
4	Course Objectives:
1.Students will develop skills for evaluating, articulating, refining,and pitchinganew product or service offering,	
acquaint the students with challenges of starting new ventures	
3.To investigate, understandand internalize the process of setting up a business.	

CourseContent	Weightage	Contact hours
Unit1 Entrepreneurship: Concept,knowledge and skills requirement;characteristic of successful entrepreneurs; role of entrepreneurship in economic development; entrepreneurship process; factors impacting emergence of entrepreneurship; managerial vs. entrepreneurial approach and emergence of entrepreneurship. Entrepreneurial Motivation.	20%	7 Hours
Unit2: Starting the venture: Creativity and Entrepreneurship, Steps in Creativity; Product Design & Influencing Factors (Legal, Ethical & Environmental);Generating businessidea–sources of new ideas, methods of generating ideas, creative problem solving,opportunity recognition;environmental scanning, competitor and industry analysis;	20%	5 Hours
Unit3: Feasibility Study (Non- financial Aspects) Market feasibility, Technical feasibility, operational feasibility,Legal feasibility, Human Resource Feasibility, Supply Feasibility.	20%	5 Hours
Unit4 Feasibility Study (financial Aspects)	20%	5 Hours
Cost classification- Fixed vs. Variable; Cost Determination- Material, Labour, Overheads; Product Profitability- Concepts of Break-even, Margin of Safety, Angle of Incidence, Key-factor, Profit-Volume ratio; Balance Sheet & Profit & Loss Account- Concepts & Structure; Budgeting; Financing Schemes from Government, specially schemes for women; Venture Capital & Angel Investing.		
Unit5 Detailed Project Report & Business Plan Project Report- components; Preparation of Business Plan; Pitching the Business Plan, Attracting Angel Investors. (A group of THREE students will prepare a DPR,and Business Plan on selected product or service in the course as a Project/Assignment)	20%	8 Hours

1.Discussion on concepts and issues in Operations management.

2.Case discussion covering across functional work of production with other

functional areas in both manufacturing and service industry.

3.Projects/Assignments/Quizzes/Classparticipation etc

LearningResources	
1	Textbooks:Entrepreneurship,Hisrich,RobertD.,MichaelPetersandDean Shepherded, , Tata McGraw Hill, ND

2	Reference Book: 1.Entrepreneurship,,BraceR.,andR.,DuaneIreland,,PearsonPrenticeHall, New Jersy (USA).3. 2.Entrepreneurship,Lall,Madhurima,and Shikha Sahai,,ExcelBook,New Delhi.4. 3.EntrepreneurshipDevelopmentandSmallBusinessEnterprises, Charantimath, Poornima, Pearson Education, New Delhi.
3	NewsPaper 1. 2.

Evaluation Scheme	**TotalMarks:100**
Mid semester Marks	30 Marks
End SemesterMarks	50 Marks
Course Outcomes	CO1: Explain key concepts and principles of entrepreneurship, including innovation, risk management, and value creation. CO2: Describe the processes and challenges involved in identifying business opportunities and converting ideas into entrepreneurial ventures. CO3: Prepare comprehensive business plans covering market analysis, financial projections, and operational strategies. CO4: Evaluate the feasibility and sustainability of entrepreneurial ventures using financial and non-financial assessment tools.
	CO5: Analyze entrepreneurial case studies to identify best practices, strategic insights, and lessons for real-world application.
	CO1: Explain key concepts and principles of entrepreneurship, including innovation, risk management, and value creation. CO2: Describe the processes and challenges involved in identifying business opportunities and converting ideas into entrepreneurial ventures. CO3: Prepare comprehensive business plans covering market analysis, financial projections, and operational strategies. CO4: Evaluate the feasibility and sustainability of entrepreneurial ventures using financial and non-financial assessment tools. CO5: Analyze entrepreneurial case studies to identify best practices, strategic insights, and lessons for real-world application.
	CO1: Explain key concepts and principles of entrepreneurship, including innovation, risk management, and value creation. CO2: Describe the processes and challenges involved in identifying business opportunities and converting ideas into entrepreneurial ventures. CO3: Prepare comprehensive business plans covering market analysis, financial projections, and operational strategies. CO4: Evaluate the feasibility and sustainability of entrepreneurial ventures using financial and non-financial assessment tools. CO5: Analyze entrepreneurial case studies to identify best practices, strategic insights, and lessons for real-world application.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	2
CO2	3	2	1	1	2
CO3	3	2	1	2	3
CO4	3	2	3	1	3
CO5	3	2	1	1	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA402	COURSE NAME Financial Management	SEMESTER IV

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Tutorial	Practical	Total Hours	Lecture	Tutorial	Practical	Total Credit
3	2	0	5	3	1	0	4

Course Prerequisites	Prerequisites for Financial Management is to include a foundational understanding of accounting principles, financial statements, balance sheets,basicmathematicspercentages,ratios,and algebra,and introductory economics demand-supply, market structures
Course Category	Core subject,The Financial Management course falls under the category of Finance and Accounting, focusing on financial planning, analysis, and decision-making to optimize business resources and achieve organizational goals.
Course focus	The Financial Management course focuses on teaching students the principles and techniques of financial planning, resource allocation, and investment decision-making. It emphasizes capital budgeting, financial statement analysis, cost of capital, and strategies to maximize shareholder value in both corporate and personal finance contexts.
Rationale	Operations Management introduces students to the fundamental principles and practices essential for managing business operations efficiently. This course covers various production systems, process design, quality management, and emerging trends in operations management. Students will learn to optimize processes, implement quality management principles, and adapt to technological and sustainable advancements, preparing them to manage operations in a dynamic business environment.
Course Revision/ Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	Understand fundamentals of financial management, ethical finance and sources of finance including startup funding. Analyze capitalization and capital structure decisions using theories and practical tools. Apply cost of capital, leverage and working capital management techniques in financial decisions. Evaluate capital budgeting techniques and dividend policy decisions considering legal framework.

Course Content	Weightage	Contact hours
Unit 1: Introduction to Financial Management Meaning of finance and financial management, Types of finance, Objective and Scope of financial management– profit maximization and wealth maximization - merits and criticisms- Financial decisions, Internal relation of financial decisions, Factors influencing financial decisions, Functional areas of financial management, Functions of a finance manager, Agency Cost, Definition of ethics and the importance of ethics in Finance, Sources of Finance: Ownership securities – Equity shares, Preference shares, Deferred shares, No par stock/shares, Shares with differential rights, Sweat Equity Creditorship securities – Debentures – Zero coupon bonds, Zero interest bonds, Callable bonds, Deep discount bonds Internal financing or ploughing back of profit – short term and long term sources. Startup finance-Bootstrapping, Series Funding.	**25%**	**15**

Unit 2: Capital Structure & Capitalization Meaning of capitalization – Theories of capitalization – cost theory and earnings theory. Over capitalization and under capitalization (Theory) – causes – effects and remedies, Watered stock, Over trading and under trading. Meaning of capital structure and financial structure, principles of	**25%**	**15**
capital structure, Optimum Capital Structure, Determinants of capital structure, capital gearing-Theories of Capital structure, Effect of capital		
structure on EPS, EBIT-EPS Analysis, Point of indifference-Practical Problems		
Unit 3: Cost of Capital, Leverages and Managing Working Capital Meaning of cost of capital, significance of cost of capital, components of cost of capital – Computation of Cost of capital and Weighted Average Cost of Capital, CAPM-Practical Problems. Meaning of Leverage, Types of Leverages – operating, financial and combined leverage, risk and leverage – practical problems. Managing working Capital - Meaning of working capital, types of working capital, working capital cycle, adequate working capital, determinants of working capital, estimation of working capital-Practice problems. Management of cash. Management of inventory and debtors.	**25%**	**15**
Unit 4: Capital Budgeting and Dividend Policy Meaning of Capital Budgeting, Importance, Need, Time value of money- Present and Future Value (Simple Problems), Capital budgeting process, project appraisal by using traditional methods and modern methods, Practical problems on Payback Period, Net Present Value, Profitability Index, IRR and MIRR methods, Dividend policy-Meaning, Kinds, Theories of dividend decisions, determinants of dividend policy decisions, Companies Act, 2013 and SEBI Guidelines on Dividend Distribution.	**25%**	**15**

Learning Resources	
1.	**Textbook:** (Latest Editions): 1. Khan, M, Y, & Jain, P, K . Financial Management. Tata Mc Graw Hill. 2. Chandra, P. Financial Management. New Delhi, India. Tata McGraw Hill Book Co. 3. Pandey,I.M. Financial Management. New Delhi, India. Vikas Publishing House. 4. Kumar, A. Financial Management, Khanna Publishing House. 5. Gupta, S, K., Sharma, R.K. & Gupta, N . Financial Management. Kalyani Publishers. 6. Khan, M, Y, & Jain, P, K . Financial Management. Tata Mc Graw Hill. 7. Brigham and Houston. Fundamentals of Financial Management, Cengage Learning
2.	**Reference Books:**
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**
Mid Semester Marks	20 marks
End Semester Marks	40 marks

Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	

		Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	CO1: Explain objectives, ethics and sources of finance in financial management. CO2: Apply capital structure theories and EBIT–EPS analysis. CO3: Apply cost of capital, leverage and working capital techniques. CO4: Evaluate capital budgeting decisions and dividend policies. CO5: Evaluate investment proposals using capital budgeting techniques and assess financing options through capital structure and cost of capital analysis to recommend optimal financial strategies.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	3	1	1
CO2	3	1	1	1	3
CO3	3	1	1	1	3
CO4	3	1	1	1	3
CO5	3	1	1	1	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA403	COURSE NAME Business Research Methodology	SEMESTER IV

Teaching Scheme (Hours)				Teaching Credit			
Lectures	Tutorial	Practical	Total Hours	Lectures	Tutorial	Practical	Total Credit
3	2	0	5	3	1	0	4

Course Prerequisites	Basic Understanding of Research
Course Category	Core
Course focus	Undesrataning of Research
Rationale	1. To grasp the fundamentals of research methodology and apply them in various research or project works. 2.To identify and utilize appropriate research methods aligned with research objectives. 3.To master the techniques of data collection, editing, and analysis to prepare for advanced studies and professional requirements. 4. To learn the intricacies of interpreting data and writing comprehensive research reports.
Course Revision/ Approval Date:	
Course Objectives (As per Blooms' Taxonomy)	CO1 : Remembering CO2: Understanding CO3: Applying CO4: Analyzing CO5: Evaluating CO6: Creating

Course Content	Weightage	Contact hours
Unit 1: Introduction to Research This unit explores the definition, history, evolution, and types of scientific inquiry and research. It addresses the ethical considerations in research, the process of research, and the characteristics and components of good research work.	**25%**	**15**
Unit 2: Formulating the Research Problem Students will learn how to identify and formulate research problems, conduct literature reviews, and develop research questions and objectives. This unit also covers the process of creating effective research designs.	**25%**	**15**
Unit 3: Measurement and Data Collection This unit focuses on measurement and scaling, discussing different types of data, sources of measurement error, and scale construction techniques. It also covers various data collection methods, including questionnaires, interviews, and observations.	**25%**	**15**
Unit 4: Data Analysis and Interpretation Topics include sampling methods, data preparation (editing and coding), and hypothesis testing using parametric and non-parametric tests. This unit also discusses the tools and techniques for data visualization like charts, tables, and box plots.	**25%**	**15**

Learning Resources	
1.	**Textbook:** (Latest Editions): 1. Malhotra, N. K., Nunan, D., & Birks, D. F., Marketing research. Pearson UK. 2. Research Methodology by Ranjit Kumar.

	3. Research Methods for Business by Uma Sekaran. 4. Methodology of Research by C.R. Kothari.
2.	**Reference Books:**
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**
Mid Semester Marks	20 marks
End Semester Marks	40 marks

Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	

Mapping of POs & COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	0	0	0	0	0	0	0
CO2	3	0	2	2	2	0	0	0
CO3	0	0	2	3	3	0	0	0
CO4	0	0	3	2	3	0	3	0
CO5	0	1	0	0	0	0	0	1

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA404	COURSE NAME International Business	SEMESTER IV

Teaching Scheme (Hours)				Teaching Credit			
Lectures	Practica l	Tutorial	Total Hours	Lectures	Practica l	Tutorial	Total Credit
2	0	0	2	2	0	0	2

Course Prerequisites	Basic understanding of business and economics principles. Knowledge of international trade concepts and global economics.
Course Category	Core
Course focus	• International trade theories and their impact on global businesses. • Foreign Direct Investment (FDI) and its role in the global economy. • Economic integration and regional trade agreements. • Emerging trends and ethical considerations in international business.
Rationale	The course aims to help students to understand the evolution and significance of international trade in contemporary business environment and examine various economic integration by analyzing the emerging trends in International Business
Course Revision/ Approval Date:	
Course Objectives	To provide a comprehensive understanding of the theoretical foundations and frameworks (EPRG, CAGE) governing international trade and investment. To analyse the mechanisms of Foreign Direct Investment (FDI) and the role of international institutions in global economic integration. To evaluate the impact of sustainability, ESG, and ethical frameworks on modern global business strategies. To equip students with the ability to identify and mitigate political, economic, and cultural risks in a VUCA global environment. To explore digital transformation and contemporary shifts like re-shoring and near-shoring in the post-pandemic global trade landscape.
(As per Blooms' Taxonomy)	international business, including international trade theories, FDI, and economic integration. CO 2 Understanding : Explain the stages of internationalization and the EPRG framework. **CO 3 Applying**: Apply theories of international trade to analyze real-world business scenarios in global markets. **CO 4Analyzing**: Analyze the impact of Foreign Direct Investment (FDI) on global business operations, and

	evaluate the benefits and costs of FDI. **CO 5 Evaluating**: Critically assess the ethical considerations, CSR frameworks, and ESG investing in international business practices. **CO 6 Creating**: Develop strategies for businesses to adapt to emerging trends in international business, such as the rise of digital platforms and the impact of Brexit.

Course Content	Weightage	Contact hours
Unit 1: Introduction to International Business Introduction to International Business Stages of Internationalization – EPRG Framework - International Trade Theories: Theories of International Trade Mercantilists, Absolute Cost and Comparative Advantage, Factor Proportions, Neo-factor Proportions Theories, Country Similarity Theory, Intra-industry Trade, Tariff and Non-Tariff Barriers in Global Businesses	**25%**	**8**
Unit 2: Introduction of Foreign Direct Investment Introduction Foreign Direct Investment in the World Economy, Trends in FDI Theories of Foreign Direct Investment, Greenfield and Brownfield FDI, Benefits and Costs of FDI, International Institutions and the Liberalization of FDI, CAGE Model.	**25%**	**7**
Unit 3: Economic Integration Economic indicators and their impact on international business decisions, Regional Economic Integration and Trade Blocs, Basic Principles of Multilateral Trade Negotiations, Instruments of Trade Regulation, FDA, custom union, common market economic union, Emerging Markets and Developing Economies.	**25%**	**8**
Unit 4: Emerging Trends in International Business International Entrepreneurship and Born Global Firms, Ethical Considerations - CSR Frameworks and Approaches and ethical considerations, ESG investing and reporting standards, corporate responses to climate change and social justice issues Implications of Brexit on international business laws, the rise of digital platforms, and ecommerce. Re-shoring and Nearshoring Trend, Impact of pandemic on International Business.	**25%**	**7**

Learning Resources	
1.	**Textbook:** (Latest Editions): 1. International Business: Competing in the Global Marketplace" by Charles W. L. Hill. 2. International Business: Concept, Environment and Strategy, 3e by Vyuptakesh Sharan Pearson Education 3. International Business: The Challenges of Globalization by John J. Wild and Kenneth L. Wild. 4. Rakesh, M. J. International Business, New Delhi, Oxford University Press. 5. Aswathappa, A. . International Business, 2e. Tata McGraw-Hill Education.
2.	**Reference Books:** Cherunilam, F. (2021). International Business: Text and Cases (8th ed.). Himalaya Publishing House. Aswathappa, K. (2020). International Business (7th ed.). McGraw Hill Education. Joshi, R. M. (2009). International Business (2nd ed.). Oxford University Press. Hill, C. W. L., & Hult, G. T. M. (2019). International Business: Competing in the Global Marketplace (12th ed.). McGraw-Hill Education. Cavusgil, S. T., Knight, G., & Riesenberger, J. R. (2020). International Business: The New Realities (5th ed.). Pearson. Daniels, J. D., Radebaugh, L. H., & Sullivan, D. P. (2018). International Business: Environments and Operations (16th ed.). Pearson.
3.	**Journals & Periodicals:** **Journal of International Business Studies**
	International Business Review

	Journal of World Business **Global Strategy and Business Practice** **International Trade Journal** **https://**
4.	**Other Electronic Resources:** **Google Scholar** **JSTOR** **ScienceDirect** **ResearchGate** **SSRN (Social Science Research Network)** **Wiley Online Library**

	Evaluation Scheme Total Marks: 100 Mid Semester Marks 20 marks End Semester Marks 40 marks

Continuous Evaluation 40 marks					
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	
Course Outcomes	CO1: Explain the stages of internationalization and apply trade theories to analyze the competitive advantage of nations. CO2: Analyze FDI trends and entry strategies (Greenfield/Brownfield) while evaluating the costs and benefits for host and home countries. CO3: Integrate ethical considerations, ESG standards, and CSR frameworks into international business decision-making. CO4: Formulate risk management strategies to navigate political, cultural, and digital challenges in cross-border trade. CO5: Formulate risk management strategies to navigate political, cultural, and digital challenges in cross-border trade.				

Mapping of POs & COs

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	2	3
CO2	3	1	1	2	3
CO3	3	1	3	2	3
CO4	3	2	2	3	3
CO5	3	2	2	3	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BA 402	**COURSE NAME** HR Analytics	**SEMESTER** IV

Teaching Scheme (Hours)			**Teaching Credit**				
Lecture 45	**Practical**	**Tutorial**	**Total Hours**	**Lecture**	**Practical**	**Tutorial**	**Total Credit**
	0	0	45	3	0	0	3

Course Pre-requisites	**Basic knowledge of HR** Domain
Course Category	Basic Core Courses
Course focus	Employability/ HR Skills/
Rationale	HR analytics is an essential subject as it equips students with the knowledge and skills to leverage data-driven insights for effective human resource management. HR analytics enables professionals to extract meaningful patterns and trends from HR data, leading to evidence-based decision-making. By understanding HR analytics, students can contribute to organizational success by aligning HR strategies with business objectives, optimizing HR processes, and driving a high-performing and engaged workforce.
Course Revision/ Approval Date:	

To develop understanding of the fundamentals and scope of HR analytics	To
To apply descriptive analytics techniques to analyze HR data	To
To analyze HR data using predictive analytics tools for forecasting	To
To apply prescriptive analytics techniques to address HR challenges	To
To understand optimization approaches using prescriptive analytics in HR	To

Course Content (Theory)	**Weightage**	**Contact hours**
Unit 1 Introduction to People Analytics This module will help students understand the domain of HR analytics and the process of implementing HR analytics in the context of evolving HR technologies. For example, how will you identify the concerns related to scheduled meetings in your organization (duration,	**20%**	**9**

effectiveness, challenges etc.) and make an evidence-based decision through a people analytics process? This module will also help you learn the basics of designing an appropriate HR analytics		

project for your experience and exposure. Evidence-based Approach HR Analytics Continuum HR Analytic Process: Designing a Project		
Unit: 2 Descriptive Analytics This module focuses on the process of capturing relevant data for HR analytics. We will focus on questions such as, the existing and potential sources of relevant data, data cleaning processes, types of metrics, and the process of developing customized proprietary metric for your organization. For illustrations, you will consider the availability of existing data, pertaining to scheduled meetings in your organization and its reliability, segmentation of the available data and modification of the same, for making business sense in your organizational context. Analytical Foundations of HR Measurement Bringing HR and Finance together Types of HR Metrics Developing Proprietary Metrics for your organization/Issues faced	**20%**	**9**
Unit 3 – Predictive Analytics By utilizing basic analytical tools, in this module, you will learn to make predictions about the challenges and outcome of future scheduled meetings in your organization. This module will help you make predictions such as – meetings that may not commence on time, relative contribution of current talent management practices to the delay in closing the meeting, types of meetings that are difficult to manage etc., based on different types of analysis. Discussions will also include qualitative analytical tools – Natural Language Processing. Introduction to Predictive Analytics Tools Choosing Predictive Analytic Models for Quantitative Data Working with Qualitative Data Interpreting Predictive Analytics Results	**20%**	**9**
Unit: 4 Prescriptive Analytics Prescriptive analytics in this context will also focus on modifications required in associated HR initiatives to ensure: (a) free flow of value-adding ideas (b)high engagement levels irrespective of hierarchical levels and (c)changes in the culture of the organization, to a high-performing	**20%**	**9**
professional one. Furthermore, the module will also briefly discuss ONA – Organizational Network Analysis. Responding to HR Challenges through Prescriptive Analytics Prescriptive Analytics as a Process to Influence Stakeholders Contextualized Prescriptions		

	Optimization through Prescriptive Analytics		
	Unit:5 Project Illustrations of People Analytics from Staffing, Training, Performance Management, Leadership, Organizational Culture, OD interventions, Organizational Structure etc., are covered and discussed across the	**20%**	**9**

Instructional Method and Pedagogy: (Max. 100 words)
The instructional method and pedagogy for HR analytics will include a combination of lectures, case studies, presentations, assignments, and tutorials. Lectures will provide a theoretical foundation and conceptual understanding of HR analytics principles. Case studies will enable students to apply their knowledge to real-world scenarios and develop analytical skills. Presentations will foster effective communication and presentation abilities. Assignments will promote critical thinking and problem-solving through data analysis and metric development. Tutorials will provide hands-on guidance and practical application of analytics tools. This comprehensive approach ensures a well-rounded learning experience, catering to different learning styles and preparing students for the challenges of HR analytics in the industry.

Course Objectives:	**Blooms' Taxonomy Domain**
To develop understanding of the fundamentals and scope of HR analytics To apply descriptive analytics techniques to analyze HR data To analyze HR data using predictive analytics tools for forecasting To apply prescriptive analytics techniques to address HR challenges To understand optimization approaches using prescriptive analytics in HR	To To To To To

organizational performance. (Evaluation/Synthesis)

Learning Resources

1. Text Book: A Fundamental of HR Analytics: A Manual to Becoming HR by
Analytics: Fermin Diez, Mark Bussin, and Venessa Lee
2. Journals, Periodicals, Reference
Reference Books:
5. HR Analytics: Understanding HR Theories by Dipak Kumar Bhattacharyya
Introduction to HR Analytics A practical guide to Data driven HR by Dave Millner
and Nadeem Khan
3. Other Electronic Resources:

Evaluation Scheme	**Total Marks**
Theory: Mid semester Marks	20 marks
Theory: End Semester Marks	40 marks
Theory: Continuous Evaluation Component Marks	Attendance 05 marks MCQs 10 marks Open Book Assignment 15 marks Article Review 10 marks
Total	**40 Marks**

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	1	2
CO2	3	2	1	1	3
CO3	3	2	1	1	3
CO4	3	3	1	1	3
CO5	3	3	1	1	3

Course Outcomes	11. CO1: Explain the fundamentals and applications of HR analytics 12. CO2: Apply descriptive analytics techniques to analyze HR metrics 13. CO3: Apply predictive analytics tools to forecast HR outcomes 14. CO4: Apply prescriptive analytics techniques to solve HR decision problems 15. CO5: Evaluate HR decisions using prescriptive analytics insights

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BA 403	COURSE NAME **Marketing & Retail Analytics**	SEMESTER IV

Teaching Scheme (Hours)				Teaching Credit			
Lecture	**Practical**	**Tutorial**	**Total Hours**	**Lecture**	**Practical**	**Tutorial**	**Total Credit**
45	0	0	45	3	0	0	3

Course Pre-requisites	Basic Information about Management
Course Category	Core
Course focus	Skills
Rationale	Marketing and Retail Analytics is the process of measuring, managing, and analyzing marketing performance to maximize effectiveness and optimize investment return. This supports the business to improve its operations and customer experience by providing a 360-degree view of the customer's needs.
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives	To understand technology-related issues relevant to marketing and retail analytics To understand the marketing process and the role of analytics in marketing decision-making To acquire basic knowledge and analytical skills related to the marketing process using analytics To analyze pricing and promotion strategies in the presence of competition To familiarize students with the application of artificial intelligence and big data in marketing and retail analytics

ourse Content (Theory)	**Weightage**	**Contact hours**
Unit 1The Marketing Process Why Marketing Analytics Introduction to the Marketing Process Marketing Strategy with Data Utilizing Data to Improve Marketing Strategy Improving the Marketing Process with Analytics	20%	**9**
Unit 2: Overview of retailing Understanding modern Retailing Marketplace & Technological aspects	20%	**9**
Unit 3: 3:Pricing tactics Value pricing Rationality and net-benefit principle	20%	**9**
Unit 4: Measuring price and promotion response Pricing new products -log models -move games	20%	**9**
Unit 5 Retailers' location decision Applying machine learning in retailing	20%	**9**
Instructional Method and Pedagogy: (Max. 100 words) Discussion on concepts and issues in projects in an organization, case discussion , Projects/ Assignments/ Quizzes/ Class participation.		

Course Outcome:	**Bloom's Taxonomy Domain**
After successful completion of the above course, students will be able to: CO1: Apply technology-related issues CO2: Understand the Marketing Process with Analytics. CO3: Learn basic knowledge and skills the Marketing Process with Analytics CO4: Analyse the right price and promotion in presence of competitors CO5: Prepare students in the age of artificial intelligence and big data.	CO1: Apply CO2: Understand CO3: Learn CO4: Analyse CO5: Prepare

Learning Resources				
1.	Reference Books: 4. "Retailing Management," by Levy, M., Weitz, B. & Grewal, D., 10th edition, McGraw-Hill, 2019 5. "R for Marketing Research and Analytics," by Chapman, C. and Feit, E. Springer, 2015			
2.	Journals, Periodicals, Reference 3. Financial Express, 5. Economics Times, 6. Business Standard			
3.	Other Electronic Resources: Lynda.comhttps://			
Evaluation Scheme	**Total Marks**			
Theory: Mid semester Marks	20 marks			
Theory: End Semester Marks	40 marks			
Theory: Continuous		Attendance	05 marks	

Evaluation Component Marks				
		MCQs	10 marks	
		Open Book Assignment	15 marks	
		Article Review	10 marks	

		Total	**40 Marks**	

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	2
CO2	3	1	1	1	2
CO3	3	1	1	1	3
CO4	3	1	1	1	3
CO5	3	1	1	1	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

Course Outcomes	16. CO1: Apply technology-enabled tools and concepts in marketing and retail analytics contexts 17. CO2: Explain the marketing process and the role of analytics in improving marketing decisions 18. CO3: Apply basic marketing analytics concepts and skills to marketing process analysis 19. CO4: Evaluate the application of artificial intelligence and big data techniques in marketing and retail analytics 20. CO5: Evaluate the application of artificial intelligence and big data techniques in marketing and retail analytics

COURSE CODE VACC401	COURSE NAME **Public Health and Management**	SEMESTER IV

Teaching Scheme (Hours)				Teaching Credit			
Lectures	**Tutorial**	**Practica l**	**Total Hours**	**Lectures**	**Tutorial**	**Practica l**	**Total Credit**
2	0	0	2	2	0	0	2

Course Prerequisites	Basic understanding of biology, healthcare systems, and managementprinciples; proficiency in analytical thinkingand problem-solving skills; strong communication abilities.
Course Category	Value Added Course
Course focus	Explores public health strategies, healthcare policies, epidemiology, and management approaches to enhance community well-being and address health challenges effectively.
Rationale	• Create a basic understanding of fundamentals of public health.• Know the health system of India along with public health planning and implications of policy making. • Provide an overall exposure to contemporary issues of Indian Public Health and know the recent policy initiatives to address those challenges.
Course Revision/ Approval Date:	
Course Objectives (As per Blooms' Taxonomy)	CO1 : Remembering Identify key concepts, principles, and terminologies related to public health and management. CO2: Understanding Explain the social, economic, and environmental determinants of health. CO3: Applying Utilize public health tools and methodologies to assess community health needs. CO4: Analyzing Examine the interplay between public health policies and healthcare
	management practices. CO5: Evaluating Critique existing public health policies and propose evidence-based improvements. CO6: Creating Design innovative public health strategies to manage emerging health challenges.

Course Content	**Weightage**	**Contact hours**
Unit 1: Public Health - Key concepts, approaches, frameworks & measures • Concept of Public Health and its role in society • Evolution of Public Health • Global Health Framework - Understanding health and disease • Health equity and social determinants of Health	**25%**	**8**
Unit 2: Health Systems in India • History of public health in India • Organization of health systems in India • Health system in India: Key Issues • Major Contemporary Health Schemes and Programmes as case studies -National Health Mission, Integrated Child Development Services (ICDS), Janani Suraksha Yojana, Ayushman Bharat Scheme, POSHAN Abhiyan etc.	**25%**	**7**

Unit 3: Concepts and practices of management & health planning• Basic concepts of planning – macro to micro • Tool for planning • Health management in a district	**25%**	**8**
Unit 4: Monitoring & Evaluation • Introduction to Monitoring & Evaluation• Health system frameworks • Application of health system frameworks	**25%**	**7**

Learning Resources	
1.	**Textbook:** (Latest Editions): • Goldsteen RL, Goldsteen K, Dwelle TL Introduction to Public Health: Promises and Practices, Springer Publishing Company
2.	**Reference Books:** • Balarajan Y, Selvaraj S, Subramanian SV, “Health care and equity in India”, The Lancet, Vol. 377(9764)
3.	**Journals & Periodicals:** • R N Batta (,“Public health management in India: Concerns and options”,Journal of Public Administration and Policy Research, Vol. 7(3) • National Health Policy 2017, Ministry of Health and Family Welfare, Govt. of India• Sen A , “Health in Development”, Bulletin of the World Health Organization, Vol. 77(8)
4.	**Other Electronic Resources:** ● ● ● PubMed World Health Organization (WHO) Library JSTOR - Public Health Journals :

Evaluation Scheme		**Total Marks: 100**		
Mid Semester Marks		20 marks		
End Semester Marks		40 marks		
Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	
Course Outcomes	After completion of the course the students will be able to: • Demonstrate a comprehensive understanding of the principles, practices, and core concepts of public health, including health promotion, disease prevention, and health equity. • Apply management theories and strategies to effectively plan, implement, and evaluate public health programs and interventions in diverse populations. • Analyze and interpret public health data to support evidence-based decision-making and policy formulation for improving community health outcomes.			

Mapping of POs & COs	● Integrate ethical considerations, cultural competency, and

	sustainability principles into public health management practices to

	PO1	PO2		address	contempo	rary healt	h challeng	es.		
				PO3	PO4	PO5	PO6	PO7	PO8	
CO1	3	0		0	0	0	0	0	0	
CO2	3	0		2	2	2	0	0	0	
CO3	0	0		2	3	3	0	0	0	
CO4	0	0		3	2	3	0	3	0	
CO5	0	1		0	0	0	0	0	1	

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE SEC401	COURSE NAME **Design Thinking and Innovation**	SEMESTER IV

Teaching Scheme (Hours)				Teaching Credit			
Lectures	**Tutorial**	**Practica l**	**Total Hours**	**Lectures**	**Tutorial**	**Practica l**	**Total Credit**
1	2	0	3	1	1	0	2

Course Prerequisites	Students should have a basic understanding of problem-solving techniques and critical thinking. Familiarity with business concepts and customer-centric approaches is recommended but not mandatory.
Course Category	compulsory/ Elective
Course focus	**Innovative Problem-Solving :**This course focuses on design thinking to foster innovation and solve problems. Students will learn a step-by-step process—empathizing, defining, ideating, prototyping, and implementing solutions—while emphasizing customer needs. Practical projects, real-world examples, and feedback integration will enhance their ability to create innovative solutions.
Rationale	Operating under turbulent and uncertain business environment, ‘innovation’ has become the key driver of organizational success for all companies. Managers are expected to be leading this change by navigating companies into rapid evolution of new products/services and business models. The primary focus of DTI is to help learners develop creative thinking skills and apply design based approaches/tools for identifying and implementing innovation opportunities into implementable projects. Following a learning-by-doing approach, the objectives of the course are– 1. Introduce students to design-based thinking approach to solve problems
	2.Observe and assimilate unstructured information to well framed solvable problems 3. Introduce students to templates of ideation 4. Understand the importance of prototyping in the innovation journey 5. Implementing innovation projects
Course Revision/ Approval Date:	
Course Objectives (As per Blooms’ Taxonomy)	To Explain the principles of design thinking and innovation to analyze customer-centric business problems. To Apply empathy mapping, observation, and problem-definition tools to identify real-world managerial challenges. To Generate innovative ideas using structured ideation techniques such as brainstorming, mind mapping, and systems thinking. To Design and evaluate prototypes through iterative testing to validate feasible and viable business solutions To Present and justify refined solutions by incorporating user feedback, creativity, and experiential learning outcomes.

Course Content	**Weightage**	**Contact hours**
Unit 1: Basics of Design Thinking 1. Understand the concept of innovation and its significance in business 2. Understanding creative thinking process and problem-solving approaches 3. Know the Design Thinking approach and its objective 4.Design Thinking and customer centricity – real-world examples of customer challenges, use of Design Thinking to Enhance Customer Experience, Parameters of Product experience, Alignment of Customer Expectations with Product.	**25%**	**8**

5.Discussion of a few global success stories like AirBnB, Apple, IDEO, Netflix etc. 6. Explain the four stages of Design Thinking Process – Empathize, Define, Ideate, Prototype, Implement		

Unit 2: Learning to Empathize and Define the Problem 1.Know the importance of empathy in innovation process – how can students develop empathy using design tools 2. Observing and assimilating information 3.Individual differences & Uniqueness Group Discussion and Activities to encourage the understanding, acceptance and appreciation of individual differences. 4. What are wicked problems 5.Identifying wicked problems around us and the potential impact of their solutions	**25%**	**7**
Unit 3:Ideate, Prototype and Implement 1. Know the various templates of ideation like brainstorming, systems thinking 2. Concept of brainstorming – how to reach a consensus on wicked problems 3. Mapping customer experience for ideation 4. Know the methods of prototyping, the purpose of rapid prototyping. 5. Implementation .	**25%**	**8**
Unit 4: Feedback, Re-Design & Re-Create 1.Feedback loop, focus on User Experience, address ergonomic challenges, user-focused design 2. Final concept testing, 3. Final Presentation – Solving Problems through innovative design concepts & creative solution	**25%**	**7**

Learning Resources	
1.	**Textbook:** (Latest Editions): 1. E Balaguruswamy , Developing Thinking Skills (The way to Success), Khanna Book Publishing Company 2. Tim Brown,“Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation”, Harvard Business Review 3. 8 steps to Innovation by R T Krishnan & V Dabholkar, Collins Publishing
2.	**Reference Books:**
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**
Mid Semester Marks	20 marks
End Semester Marks	40 marks

Continuous Evaluation 40 marks							
		Class Particip	ation			10 marks	
		Quiz				5 marks	
		Skill Enhance Case Study/ R	ment Activities/ esearch Paper			15 marks	
		Presentation				10 marks	

Course Outcomes	CO1: Explain the framework and stages of design thinking to analyze innovation-driven, customer-centric business problems CO2: Apply empathy mapping, observation and problem-definition tools to identify and structure complex managerial problems. CO3: Generate creative and feasible solutions using ideation techniques such as brainstorming and systems thinking. CO4: Design and test prototypes to develop user-oriented solutions addressing functional and ergonomic requirements. CO5: Evaluate and present refined design solutions by incorporating user feedback, usability principles and innovation outcomes.

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	3
CO2	3	1	2	1	3
CO3	3	2	1	1	3
CO4	3	1	1	1	3
CO5	3	2	1	3	3

COURSE CODE AECC401	**Environmental Science**	**L**	**T**	**P**	**Total**
		2	**0**	**0**	**2**
Total Credits: 2	Total Hours in Semester: 30	Total Marks: 100 Group discus			

1	Course Pre-requisites 10 +2
2	Course Category: Ability Enhancement Compulsory Course
3	Course Revision/ Approval date: 11 March 2020
4	Course Objectives
	4.1 To acquire awareness of and sensitivity about environment and its allied problems.
	4.2 To make educated judgments about environmental issues
	4.3 To develop skills and a commitment to act independently and think logically for environment sustainability
	4.4 Students can able to debate environmental science with use of appropriate scientific information
	4.5 To engage students to think critically, ethically, and creatively when evaluating environmental issues.

Course Content	Weightag e	Contact hours	Pedagogy
Unit 1: Introduction to environmental studies: Definition, scope, and importance of environmental studies. Multidisciplinary nature of environmental studies; Biogeochemical cycle: Carbon cycle and nitrogen cycle.	20%	6	Group discussion PowerPoint presentation
Unit 2: Ecosystems: Definition and Structure of ecosystem: Abiotic and biotic components (producers, consumers and decomposers), Ecosystem function: Energy flow in an ecosystem; food chains and foodwebs. Case studies on Forest, Grassland, Desert and aquatic ecosystem. Biotic interaction (positive and negative interactions with examples)	30%	9	Group discussion PowerPoint presentation Case studies Chalk and board
Unit 3: Natural Resources: Renewable and non- renewable resources, Use of alternative energy resources. Impact deforestation on biodiversity and tribal population	20%	6	PowerPoint presentation Chalk and board
Unit 4: Environmental pollution: Air, water, soil and noise. Nuclear hazardand human health risks. Solid waste management, Pollution case studies.Global	20%	6	Group discussion PowerPoint presentation
warming, Climate change, Ozone layer depletion, acid rain, photochemical smog. Case studies for e.g. CNG vehicles in Delhi			News report Case studies
Unit 5: Environmental laws: Environmental protection act, Air (prevention & control of pollution act), Water (preservation and control of pollution) act, Wildlife protection act, Forest conservation act, Montreal and Kyoto protocol, conservation of biodiversity; Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan. Role of Indian and other religionsand cultures in environmental conservation.	10%	3	Group discussion PowerPoint presentation News report Case studies

Learning Resources	
1 .	.**Textbooks:** DD Mishra (2008) Fundamental Concepts in Environmental studies, S.Chand & Company Pvt. Ltd., India PD Sharma (1997) Fundamentals of Ecology, Rastogi Publications PD Sharma (2012) Ecology and Environment, Rastogi Publications BK Sharma (2019) Environmental Chemistry, Krishna's EducationalPublishers E Bharucha (2005) Textbook of Environmental Studies, UniversitiesPress R Rajagopalan (2016)Environmental Studies: From Crisis to Cure,Oxford University Press JF Peirce, RF Weiner, and PA Vesilind (1998) Environmental Pollution and Control, Elsevier Science & Technology Book Mohan P Arora (2004) Ecology, Himalaya Publishing House MC Dash (2009) Fundamentals of Ecology, Tata MacGraw Hill
2.	2.**Reference books:** EP Odum (2005) Fundamentals of Ecology, Cengage Learning IndiaPrivate Limited TN Sherratt & DM Wilkinson (2009) Big Questions in Ecology & Evolution, Oxford University Press CJ Krebs (2013)Ecology: Experimental Analysis of Distribution & Abundance, Pearson Education, London
	EJ Kormondy (1996) Concept of Ecology, Pearson Education, London NS Sodhi, L Gibson, PH Raven (2013) Conservation Biology: Voicesfrom the Tropics. John Wiley & Sons RE Hester and RM Harrison (2018) Plastic and Environment, Royal Society of Chemistry, Thomas Graham House, Science Park, MiltonRoad, Cambridge, CB4 0WF, UK Fernando Ramírez and Josefina Santana (2018) Environmental Education and Ecotourism, Springer Nature Switzerland AG T Jindal (2018)Emerging Issues in Ecology and Environmental Science, Case studies from India, Springer Nature Switzerland Charles W. Fox, Derek A. Roff, Daphne J. Fairbairn (2001) Evolutionary Ecology Concepts and Case studies, Oxford UniversityPress B Streit, T. Städler, C.M. Lively (2013) Evolutionary Ecology of Freshwater Animals: Concepts and Case Studies, Springer Basel AG KN Nianan (2014) Valuing Ecosystem Services: Methodological Issuesand Case Studies, Edward Elgar Publishing Limitted, UK Thomas Weber (1989) Hugging the Trees: The Story of the ChipkoMovement, Penguin Books BK Sharma, Seema Kulshreshtha, Asad R. Rahmani () Faunal Heritageof Rajasthan, India, Springer India PankajJain(2011)DharmaandEcologyofHinduCommunities:Sustenanceand Sustainability, Routledge Taylor and Francis Group Subhadra Sen Gupta (2014) Caring for Nature: Rao Jodha and the curse of the hermit, The Energy and Resource Institute, TERI Press, New Delhi, India
3.	3.**Journals** Environmental Pollutants and Bioavailability Clean Air Journal Emerging Contaminants Environment: Science and Policy for Sustainable Development Annual Review of Environment and R esources Renewable Energy

	Other Electronic resources Green.tv—supported by UNEP—broadband TV channel for filmsabout environmental issues Climate Change TV —funded by companies, governments and organisations, and produced by the magazine Responding to Climate Change—the world's first web channel specific to climate change videos Terra: The Nature of Our World video podcast produced in conjunction with the Master of Fine Arts program in Science & Natural History Filmmaking at Montana State University, Filmmakersfor Conservation, and PBS—weekly video show about science and natural history Green Times Ahead—based in India—student run non-profit with a focus on evading the detrimental effects of air and water pollution, constantly involved in communal engagement
4.	
5.	

	IUCN Red data List Air quality index (website monitor air quality index) Nature Education Knowledge Project

Evaluation Scheme	Total Marks	
Mid semester Marks	30	
End Semester Marks	50	
Continuous Evaluation Marks	Attendance	5 marks
	Quiz	5 marks
	Skill enhancement activities / case study	5 marks
	Presentation/ miscellaneous activities	5 marks

Course Outcomes	1. Skills for identifying environmental problems: Evaluate information from popular electronic and print media
	2. Interdisciplinary - When encountering environmental problems students will assess necessary scientific concepts and data, consider likely social dynamics, and establish integral cultural contexts
	3. Communication - Students will communicate with precision in writing, in speech, and in digital media.
	4. Research - When faced with questions that lie beyond their current knowledge base, students will actively research data, concepts, histories, and narratives necessary for adequate consideration of the issue.
	5. Intellectual Flexibility - Students will possess the intellectualflexibility necessary to view environmental questions from multiple perspectives, prepared to alter their understanding as they learn new ways of understanding.

Additional Information enhance learning	Any site visit required or expert talk required on specific topics: Visit to Ecotourism site Industrial visit or expert talk can be planned to understand waste management practice

COURSE CODE BBA501	COURSE NAME Strategic Management	SEMESTER V

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Tutorial	Practical	Total Hours	Lecture	Tutorial	Practical	Total Credit
3	2	0	5	3	1	0	4

Course Prerequisites	Basic understanding of business and management principles. Familiarity with organizational structures, decision-making processes, and corporate governance.
Course Category	Core
Course focus	Fundamentals of strategy and strategic management. Strategic analysis using tools like SWOT, BCG, and industry analysis. Formulating strategies for growth, expansion, and diversification. Implementing and controlling strategies for effective business performance.
Rationale	1.To enhance the ability to do the job of a general manager responsible for strategic performance. Specifically, to integrate the different functional areas of business (e.g. accounting, finance, human resources, information systems, marketing, operations management, etc.) into a cohesive whole. 2.Analyse the competitive situation and evaluate challenges faced by managers in implementing and evaluating strategies based on the nature of business, industry, and cultural differences
Course Revision/ Approval Date:	
Course Objectives (As per Blooms' Taxonomy)	Conceptual Foundation: To provide students with a comprehensive understanding of the strategic management framework, integrating corporate governance and social responsibility into organizational strategy. Strategic Process: To familiarize students with the complexities of the strategic management process and the
	distinct roles of corporate, business, and functional-level strategies in achieving goals. Analytical Frameworks: To equip students with specialized analytical tools (SWOT, BCG, Value Chain) to evaluate internal capabilities and external industry forces for competitive advantage. Environmental Intelligence: To enable students to synthesize environmental data to forecast industry trends and align organizational resources with emerging market opportunities. Strategy Evaluation: To empower students to critically assess the performance and risks associated with growth strategies, including M&A, diversification, and global expansion. Actionable Strategy: To develop the student's ability to design integrated, sustainable strategic plans that leverage innovation to solve real-world business challenges.
	SWOT, BCG Matrix, and value chain analysis to assess strategic capabilities. CO4: **Analyzing**: Analyze internal and external environments to forecast industry trends and formulate strategies. CO5: **Evaluating**: Evaluate the effectiveness of different corporate strategies including diversification, growth, and mergers & acquisitions. CO6: **Creating**: Develop and implement strategies based on business goals, sustainability, and innovation for competitive advantage.

Course Content	Weightage	Contact hours
Unit 1:Introduction to Strategy The objectives of this topic is to understand concept of "strategy", and discuss the most common elements of strategy; the topic also undertakes the evolution of strategic management thinking over the decades; the topic covers the importance of strategic thinking and gives insight into how the firms build and sustain competitive advantage. Strategy – concept, relevance, role and benefits; Importance of Strategic Management; Strategic Management Process, Levels of Strategy; Approaches to Strategic Decision Making; Strategic Intent – Vision, Mission, Goals and Objectives; Strategy and Corporate Governance, Social Responsibility and Ethics in Strategic Management	**25%**	**15**
Unit 2: Strategic Analysis The objective of the unit are to evaluate the value-capturing ability of incumbents in an industry using the industry analysis tools, to forecast industry profitability from shifts in underlying conditions and forces; to understand the industry for strategy formulation. Environmental appraisal- Scanning the Environment ,Technological, Social, Cultural, Demographic, Political, Legal; Evaluating Company's External Environment:	**25%**	**15**
Components of External Environment; Analysis of the general environment; Nature, Characteristics, Types and Approaches of External environment, Key External Forces, Industry Analysis – Analysis of the competitive environment ; Analysis of the Internal environment: Strategic capability, Nature, Characteristics, Types and Approaches to internal environment; Value chain analysis , Experience Curve, SWOT analysis, BCG Matrix, GE- Cell Matrix		
Unit 3 Strategy Formulation The objectives of the Unit are to review corporate strategy for a diversified firm and identify the sources of corporate advantage; to understand the mechanism of diversification leading to value creation. It also helps to develop understanding about the different corporate strategies which are crucial for the survival, growth and expansion of the business. Business Strategy Formulation: Generic strategies; Functional areas and link between business strategy and functional strategy; Corporate Strategy Formulation: Creating value and diversification; Strategic alliances; International expansion strategies; Introduction to strategies of growth, stability and renewal, types of growth strategies concentrated growth, product development, integration, diversification, international expansion (multi domestic approach, franchising, licensing and joint ventures); Types of renewal strategies retrenchment and turnaround. Strategic fundamentals of merger & acquisitions	**25%**	**15**
Unit 4: Strategy Implementation and Control The objectives of this topic are to understand the importance of internal alignment and learn to leverage temporary opportunities into sustainable advantages; the topic also dwells in Value Innovation, Business Delivery System Innovation and Eco System Innovation for sustainable business performances. Structural Implementation; Functional and Operational Implementation; Behavioral Implementation; Strategy Evaluation and Control; Strategic leadership; Strategic control and corporate governance; Issues in Strategy Implementation; Creating effective organizational designs; Strategy and society; Managing innovation and fostering corporate entrepreneurship; Integration of Functional Plans and Policies Strategy Evaluation and Control - Operational Control - Overview of Management Control.	**25%**	**15**

Learning Resources

1.	**Textbook:** (Latest Edition): Thomas L Wheelen, J David Hunger, Alan N Hoffman, Charles E Bamford and Purva Kansal . Concepts in Strategic Management and Business Policy: Globalization, Innovation and Sustainability, 15th Edition, Pearson. Frank T Rothaermel . Strategic Management – 5th Edition (Indian), McGraw Hill
2.	**Reference Books:** Strategic Management: Concepts and Cases by Fred R. David Crafting and Executing Strategy: The Quest for Competitive Advantage by Arthur A. Thompson, A.J. Strickland, and John E. Gamble Strategic Management: Text and Cases by Gregory G. Dess, Gerry McNamara, Alan E. Eisner Exploring Corporate Strategy by Gerry Johnson, Kevan Scholes, Richard Whittington Competitive Strategy: Techniques for Analyzing Industries and Competitors by Michael E. Porter
3.	**Journals & Periodicals:** Strategic Management Journal Harvard Business Review Journal of Business Strategy https:/ Journal of Strategic and International Studies https:/ Academy of Management Journal https://journals.aom.org/journal/amj
4.	**Other Electronic Resources:** **Other Electronic Resources:**

	1.Google Scholar 2.ScienceDirect 3.JSTOR 4.SSRN (Social Science Research Network) 5.ResearchGate

Evaluation Scheme	**Total Marks: 100**			
Mid Semester Marks	20 marks			
End Semester Marks	40 marks			
Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement Activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	CO1: Explain the core principles of strategic management and the impact of corporate governance on achieving long-term competitive advantage. CO2: Apply industry analysis models (SWOT, PESTEL, Porter's Five Forces) to assess the impact of environmental factors on a firm's strategic position. CO3: Analyze the strategic fit and financial implications of corporate-level moves, including diversification, growth, and alliances, on overall business performance. CO4: Formulate a comprehensive strategic plan that integrates sustainability and innovation to address complex business challenges in a globalized VUCA environment.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	1	2
CO2	3	1	1	1	3
CO3	3	2	1	1	3
CO4	3	2	3	2	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA502	COURSE NAME Logistics and Supply Chain Management	SEMESTER V

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Tutorial	Practical	Total Hours	Lecture	Tutorial	Practical	Total Credit
3	2	0	5	3	1	0	4

Course Prerequisites	A basic understanding of business operations, logistics, and e- commerce concepts is recommended. Familiarity with
	management principles and operational strategies will aid in comprehending supply chain management topics.
Course Category	Basic Core Course
Course focus	Supply chain management, network design, sourcing, pricing strategies, and demand-supply coordination. Aligning supply chains with business strategies, optimizing costs, and understanding global market dynamics.
Rationale	1.To understand the strategic role of supply chain management in enhancing organizational competitiveness. 2. To explore the design and optimization of supply chain networks, particularly for e-commerce 3.To examine the impact of sourcing and pricing decisions on supply chain efficiency and effectiveness. 4.To develop skills in coordinating and managing supply and demand in a globalized market environment.
Course Revision/ Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	Conceptual Foundation: To provide a comprehensive understanding of the strategic role of supply chain drivers and metrics in achieving organizational competitive advantage. Strategic Alignment: To familiarize students with the methodologies used to align supply chain design with corporate business objectives and operational capabilities. Design Principles: To equip students with the principles of network design and sourcing strategies essential for navigating global and e-commerce supply chains. Performance Analytics: To enable students to utilize performance metrics to identify operational inefficiencies and evaluate the impact of various design choices. Coordination & Optimization: To develop the ability to critique and optimize sourcing and pricing strategies to ensure cost-efficiency and demand-supply balance. Strategic Frameworks: To foster the ability to design responsive supply chain networks by leveraging e-business and global market dynamics.

Course Content	Weightage (%)	Contact hours
Unit 1:Introduction to Supply Chain Management This unit explores the role of supply chain management in organizations, achieving strategic fit, and understanding supply chain drivers and metrics. Students will learn about the integral nature of supply chains in aligning business strategies with operational capabilities to enhance performance and competitiveness.	**25%**	**15**

Unit 2: Supply Chain Network Design Students will learn to design distribution networks with a focus on e-business applications and global supply chain networks. This unit covers the strategies and challenges of creating efficient and responsive supply chain networks that align with business objectives and the dynamic nature of global markets.	**25%**	**15**

Unit 3 Sourcing and Pricing Strategies This unit addresses sourcing decisions and pricing management within supply chains. Students will explore various sourcing strategies and pricing models that can be employed to optimize revenue management and cost-efficiency in supply chains, with a particular focus on e-commerce dynamics.	**25%**	**15**
Unit 4: Demand and Supply Coordination Focusing on the synchronization of demand forecasting, aggregate planning, and sales operations planning, this unit teaches students how to coordinate supply chain activities to balance demand and supply efficiently. Key topics include demand forecasting techniques, aggregate planning strategies, and the importance of coordination across the supply chain.	**25%**	**15**

Learning Resources	
1.	**Textbook:** (Latest Edition): 1. Supply Chain Management: Strategy, Planning, and Operation, 7th ed., by Sunil Chopra & Peter Meindl, Pearson. 2. Logistics & Supply Chain Management, 5th ed., by Martin Christopher, Pearson. **Suggested Case Topics**: • Dell's direct model in PC manufacturing: Integration of supply chain and ebusiness. Model curriculum for UG Degree in BBA 128 • Starbucks' sustainable sourcing practices: A supply chain perspective. • Walmart's supply chain management strategies for global dominance.
2.	**Reference Books:**
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**
Mid Semester Marks	20 marks
End Semester Marks	40 marks
Continuous Evaluation 40 marks	Class Participation 10 marks Quiz 5 marks Skill Enhancement Activities/ 15 marks Case Study/ Research Paper Presentation 10 marks

Course Outcomes	CO1: Conceptual Foundation: To provide a comprehensive understanding of the strategic role of supply chain drivers and metrics in achieving organizational competitive advantage. CO2: Strategic Alignment: To familiarize students with the methodologies used to align supply chain design with corporate business objectives and operational capabilities. CO3: Design Principles: To equip students with the principles of network design and sourcing strategies essential for navigating global and e-commerce supply chains.

	CO4: Performance Analytics: To enable students to utilize performance metrics to identify operational inefficiencies and evaluate the impact of various design choices. CO5: Coordination & Optimization: To develop the ability to critique and optimize sourcing and pricing strategies to ensure cost-efficiency and demand-supply balance. CO6: Formulate responsive supply chain strategies using e-business applications to meet global market requirements and business goals.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	2
CO2	3	2	1	1	3
CO3	3	1	1	2	3
CO4	3	1	1	1	3
CO5	3	2	1	1	3
CO6	3	2	1	2	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA503	COURSE NAME WEB & SOCIAL MEDIA ANALYTICS	SEMESTER V

Teaching Scheme (Hours)				Teaching Credit			
Lecture	**Practical**	**Tutorial**	**Total Hours**	**Lecture**	**Practical**	**Tutorial**	**Total Credit**
45	0	0	45	3	0	0	3

Course Pre-requisites	**Basic knowledge of Business**
Course Category	Basic Core Courses

Course focus	Employability/ Marketing Skills/ Entrepreneurship
Rationale	This subject provides a comprehensive understanding of Social Media Analytics (SMA) and its applications in small and large organizations. Students explore web metrics, web analytics, Facebook Analytics, and gain practical skills in data analysis using Python programming. They learn to leverage social media analytics for organizational success.
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives (As per Blooms' Taxonomy)	1.Conceptual Foundation: To provide a comprehensive understanding of the Social Media Analytics landscape and its strategic importance in modern organizational decision-making. 2.Metric Literacy: To familiarize students with diverse web metrics and analytical techniques required for systematic data gathering and performance tracking. 3.Platform Analytics: To equip students with the skills to utilize social platform tools (like Facebook/Meta Analytics) for audience profiling and campaign evaluation. 4.Technical Toolset: To enable students to apply data analysis languages, specifically Python, for the collection and visualization of social media data. 5.Strategic Synthesis: To foster the ability to conduct usability testing and present data-driven findings to optimize social media marketing campaigns.

Course Content (Theory)	Weightage	Contact hours
Unit 1: Introduction to Social Media Analytics (SMA): Web and social media (Web sites, web apps, mobile apps and social media). Social media landscape, Need for SMA; SMA in Small organizations; SMA in large organizations; Application of SMA in different areas Social media analytics (what and why) ,Social media KPIs (reach and engagement) ,Performing social media analytics (business goal, KPIs, data gathering, analysis, measure and feedback)	20 %	9
Unit 2: Web metrics and web analytics Click stream analysis, A/B testing, online surveys, Use of Google Analytics; Web crawling and Indexing; Natural Language Processing Techniques for Micro-text AnalysisPULSE metrics (Page views, Uptime, Latency, Seven-day active users) on business and technical issues; HEART metrics (Happiness, Engagement, Adoption, Retention, and Task success) on user behaviour issues; On-site web analytics, off-site web analytics, the goal-signal-metric process	20 %	9
Unit 3: Facebook Analytics: Introduction, parameters, demographics. Analyzing page audience. Reach and Engagement analysis. Postperformance on FB, Use of Facebook Business Manager; Social campaigns.	20 %	9

Measuring and Analyzing social campaigns, defining goals and evaluating outcomes, Network Analysis. (LinkedIn, Instagram, YouTube Twitter etc		
Unit 4: Data analysis language and tools Ready-made tools for Web and social media analytics (Key Google Analytics metrics, dashboard, social reports)Introduction to Python Programming, Collecting and analyzing social media data; visualization and exploration.	20 %	9
Unit 5:Practical Usability study planning and testing; and data analysis using software tools (Google Analytics, Google Sites, R and Deducer), User experience measurement cases Web analytics cases. Students should analyze the social media of any ongoing campaigns and present the findings.	20 %	9

Instructional Method and Pedagogy: (Max. 100 words)
Lectures will provide theoretical knowledge, while case studies and practical exercises offer opportunities to apply Social Media Analytics (SMA) techniques in real-world scenarios. Group discussions and guest speakers bring industry perspectives, and practical projects allow students to develop SMA strategies. Assessments and feedback ensure understanding and improvement, and online resources keep students up-to-date. Practical demonstrations reinforce skills in using tools like Google Analytics and Python programming for SMA.

Course Objectives:	**Blooms' Taxonomy Domain**
Conceptual Foundation: To provide a comprehensive understanding of the Social Media Analytics landscape and its strategic importance in modern organizational decision-making. Metric Literacy: To familiarize students with diverse web metrics and analytical techniques required for systematic data gathering and performance tracking. Platform Analytics: To equip students with the skills to utilize social platform tools (like Facebook/Meta Analytics) for audience profiling and campaign evaluation. Technical Toolset: To enable students to apply data analysis languages, specifically Python, for the collection and visualization of social media data. Strategic Synthesis: To foster the ability to conduct usability testing and present data-driven findings to optimize social media marketing campaigns.	To To To To To

Learning Resources	
1.	1. Mathew Ganis, Avinash Koihrkar-Social Media Analytics-IBM Press-2015 / 1s Wherever the standard books are not available for the topic appropriate print and online resources, journals and books published by different authors may be prescribed.
2.	Journals, Periodicals, Reference 1. Jim Sterne-Social Media Metrics-Wiley-Latest 2. Marshall Sponder, Gorah F. Khan-Digital Analytics for Marketing-Routledge-2017 / 1st 3.Gohar F. Khan-Creating Value With Social Media Analytics-CreateSpace Independent Publishing-2018 / 1st
3.	Other Electronic Resources: ndian Journal of Marketing 2. The Journal of Social Media in Society 3. Journal of Digital and Social Media Marketing 4. Social Media Marketing (Magazine) 5. Brand Equity – Economic Times 6. 7. 8.

Evaluation Scheme	**Total Marks**
Theory: Mid semester Marks	20 marks

Theory: End Semester Marks	40 marks	
Theory: Continuous Evaluation **Component Marks**		
	Attendance	05 marks
	MCQs	10 marks
	Open Book Assignment	15 marks
	Article Review	10 marks
	Total	**40 Marks**

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	2
CO2	3	1	1	1	3
CO3	3	1	1	1	3
CO4	3	1	1	2	3
CO5	3	1	1	3	3

Course Outcomes	21. CO1: Identify the core concepts and strategic significance of Social Media Analytics across different organizational scales. 22. CO2: Distinguish between various web metrics and techniques like A/B testing and clickstream analysis to monitor web performance. 23. CO3: Utilize platform-specific analytics to evaluate audience demographics, engagement levels, and overall campaign performance. 24. CO4: Apply Python programming scripts to automate social media data collection and generate visual insights for business intelligence. 25. CO5: Formulate comprehensive reports based on usability studies and data analysis from tools like Google Analytics to improve digital strategies.

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE	COURSE NAME	SEMESTER
BBA504	Python Programming	V

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Practical	Tutorial	Total Hours	Lecture	Practical	Tutorial	Total Credit
45	0	0	45	3	0	0	3

Course Pre-requisites	**Basic knowledge of computer**
Course Category	Basic Core Courses
Course focus	Employability/ Computer languageSkills/ Entrepreneurship
Rationale	Python is a versatile and widely-used programming language. Understanding its core concepts and advanced features is essential for effective software development and problem-solving.
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives (As per Blooms' Taxonomy)	1.Programming Foundations: To provide a comprehensive understanding of Python syntax, data types, and control flow structures for logical problem-solving. 2.Modular Programming: To familiarize students with the implementation of standard libraries and modules to enhance code reusability and functionality. 3.Code Robustness: To equip students with advanced programming techniques, including error handling and unit testing, to ensure software reliability. 4.OOP Frameworks: To enable students to apply Object-Oriented Programming (OOP) principles, such as inheritance and polymorphism, in software design. 5.Customized Implementation: To foster the ability to customize Python objects by emulating built-in types and implementing special "dunder" methods.

Course Content (Theory)	Weightage	Contact hours
Unit 1 • General Introduction to Python and the class. Using the command interpreter and development environment. • Kick-off tutorial	**20%**	**9**
• Finding and using the documentation. Getting help. Python 2/3 differences.		
Unit: 2 • Introduction to git and GitHub • Basic data types. • Functions: definition and use, arguments, block structure, scope, recursion • Modules and import Conditionals and Boolean expressions	**20%**	**9**
Unit 3 • Sequences: Strings, Tuples, Lists	**20%**	**9**

• Iteration, looping and control flow. • String methods and formatting • Dictionaries, Sets and Mutability. • Files and Text Processing		
Unit 4 • Exceptions • Testing • List and Dict Comprehensions • Advanced Argument passing • Lambda Functions as Objects	**20%**	**9**
Unit:5 • Class instances • Methods • Multiple inheritances • Properties • Special methods Emulating built-in type	**20%**	**9**

Instructional Method and Pedagogy: (Max. 100 words)
The course will employ a blended learning approach. It will include interactive lectures, hands-on programming exercises, coding assignments, and collaborative projects. Students will have access to comprehensive documentation and online resources for self-learning. Regular assessments and code reviews will provide feedback on students' understanding and proficiency in Python programming. Practical examples and real- world applications will be incorporated to enhance the learning experience and encourage critical

Course Objectives:	**Blooms' Taxonomy**

	Domain	
Programming Foundations: To provide a comprehensive understanding of Python syntax, data types, and control flow structures for logical problem-solving. Modular Programming: To familiarize students with the implementation of standard libraries and modules to enhance code reusability and functionality. Code Robustness: To equip students with advanced programming techniques, including error handling and unit testing, to ensure software reliability. OOP Frameworks: To enable students to apply Object-Oriented Programming (OOP) principles, such as inheritance and polymorphism, in software design. Customized Implementation: To foster the ability to customize Python objects by emulating built-in types and implementing special "dunder" methods.		To To To To To

Learning Resources	
1.	Reference Books: Textbook: **A Python Book: Beginning Python, Advanced Python, and Python**
2.	Journals, Periodicals, Reference • **ython Essential Reference** (The definitive reference for both Python and much of the standard library. • **Hitchhikers Guide to Python** (Under active development, and still somewhat incomplete, but there is good stuff. • **Writing Idiomatic Python** (https:// python-ebook): Focused on not just getting the code to work, but how to write

	it in a really "Pythonic" way. • **Fluent Python** (All python3, and focused on getting the advanced details right. Good place to go once you've got the basics down
3.	Other Electronic Resources:

Evaluation Scheme **Theory: Mid semester Marks** **Theory: End Semester Marks**	**Total Marks** 20 marks 40 marks

Theory: Continuous

Evaluation Component Marks	Attendance	05 marks
	MCQs	10 marks
	Open Book Assignment	15 marks
	Article Review	10 marks

	Total 40 Marks

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	1
CO2	3	1	1	1	3
CO3	3	1	1	1	2
CO4	3	1	1	1	2
CO5	3	1	1	1	2

Course Outcomes	26. CO1: Describe the basic syntax and structural components of Python to write simple algorithmic scripts. 27. CO2: Implement standard Python libraries and modules to automate data-related tasks and solve domain-specific problems. 28. CO3: Construct robust error-handling mechanisms and unit tests to ensure the reliability and efficiency of Python programs. 29. CO4: Model real-world business entities using Object-Oriented Programming concepts like classes, inheritance, and encapsulation. 30. CO5: Formulate customized Python classes by emulating built-in types to handle complex and specialized data behaviors.

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA505	COURSE NAME Data Visualization Tools - MS Power BI	SEMESTER V

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Practical	Tutorial	Total Hours	Lecture	Practical	Tutorial	Total Credit
45	0	0	45	3	0	0	3

Course Pre-requisites	**Basic Computer Knowledge**
Course Category	Basic Core Courses
Course focus	Employability/ Data visualization Skills
Rationale	Power BI has emerged as a crucial tool in the field of data analysis and reporting, enabling organizations to extract valuable insights from complex data sets. This subject aims to equip students with the knowledge and skills to effectively utilize Power BI in their professional careers. By learning Power BI, students will be able to transform raw data into meaningful visualizations, make data- driven decisions, and communicate insights to stakeholders. The subject's rationale lies in the increasing demand for professionals who can harness the power of Power BI to drive business success
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives (As per Blooms' Taxonomy)	1. Business Intelligence Foundation: To provide a comprehensive understanding of Power BI's role in data-driven decision making and its advantages over traditional reporting tools. 2. System Architecture: To familiarize students with the end-to-end Power BI architecture, including data connectivity options and environment setup. 3. Report Engineering: To equip students with the technical skills to integrate heterogeneous data sources and apply complex filters for targeted reporting. 4. Visual Storytelling: To enable students to utilize advanced visualization techniques and customization options to communicate data insights effectively. 5. Data Modeling & Interactivity: To foster the ability to create interactive reports using data hierarchies, parameters, and drill-through functionalities for deep-dive analysis.

Course Content (Theory)	Weightage	Contact hours
Unit – 1 Introduction Introduction To Power BI – Need, Importance Power BI – Advantages And Scalable Options History – Power View, Power Query, Power Pivot Power BI Data Source Library And DW Files Cloud Collaboration And Usage Scope Business Analyst Tools, MS Cloud Tools Power BI Installation And Cloud Account Power BI Cloud And Power BI Service Power BI Architecture And Data Access On Premise Data Access And Microsoft On Drive Power BI Desktop – Installation	**20%**	**9**
Unit – 2 Reports & Auto filters Report Design With Legacy & .DAT Files Report Design With Databse Tables Understanding Power BI Report DesignerReport Canvas, Report Pages: Creation, Renames Report Visuals, Fields And UI Options Experimenting Visual Interactions, Advantages Reports With Multiple Pages And Advantages Pages With Multiple Visualizations. Data Access PUBLISH Options And Report Verification In Cloud "GET DATA" Options And Report Fields, Filters Report View Options: Full, Fit Page, Width Scale Report Design Using Databases & Queries Query Settings And Data Preloads Navigation	**20%**	**9**

Options And Report Refresh Stacked Bar Chart, Stacked Column Chart Clustered Bar Chart, Clustered Column Chart Adding Report Titles. Report Format Options Focus Mode, Explore And Export Settings		
Unit–3 Visualization Power BI Design: Canvas, Visualizations And Fileds Import Data Options With Power BI Model, Advantages Direct Query Options And Real-Time (LIVE) Data Access Data Fields And Filters With Visualizations Visualization Filters, Page Filters, Report Filters Conditional Filters And Clearing. Testing Sets Creating Customised Tables With Power BI Editor .General Properties, Sizing, Dimensions, And Positions Alternate Text And Tiles. Header (Column, Row) Properties Grid Properties (Vertical, Horizontal) And Styles Table Styles & Alternate Row Colors – Static, Dynamic Sparse, Flashy Rows, Condensed Table Reports. Focus Mode Totals Computations, Background	**20%**	**9**
Unit–4 Advance Visualization tools CHART Report Types And Properties stacked bar chart, stacked column chart clustered bar chart, clustered column chart 100% stacked bar chart, 100% stacked column chart line charts, area charts, stacked area charts line and stacked row charts line and stacked column charts waterfall chart, scatter chart, pie chart Field Properties: Axis, Legend, Value, Tooltip Field Properties: Color Saturation, Filters Types Formats: Legend, Axis, Data Labels, Plot Area Data Labels: Visibility, Color And Display Units Data Labels: Precision, Position, Text Options Analytics: Constant Line, Position, Labels Working With Waterfall Charts And Default Values Modifying Legends And Visual Filters – Options Map Reports:	**20%**	**9**
Working With Map Reports Hierarchies: Grouping Multiple Report Fields Hierarchy Levels And Usages In Visualizations Preordered		
Attribute Collection – Advantages Using Field Hierarchies With Chart Reports Advanced Query Mode @ Connection Settings – Options Direct Import And In-Memory Loads, Advantages		
Unit–5 Data Management with hierarchies & drill down Hierarchies And Drilldown Options Hierarchy Levels And Drill Modes – Usage Drill-Thru Options With Tree Map And Pie Chart Higher Levels And Next Level Navigation Options Aggregates With Bottom/Up Navigations. Rules Multi Field Aggregations And Hierarchies In Power BI DRILLDOWN, SHOWNEXTLEVEL, EXPANDTONEXTLEVEL, SEE DATA And SEE RECORDS Options. Differences Toggle Options With Tabular Data. Filters Drilldown Buttons And Mouse Hover Options @ Visuals Dependant Aggregations, Independent Aggregations Automated Records Selection With Tabular Data Report Parameters : Creation And Data Type Available Values And Default Values. Member Values Parameters For Column Data And Table / Query Filters Parameters Creation – Query Mode, UI Option Linking Parameters To Query Columns – Options Edit Query Options And Parameter Manage Entries Connection Parameters And Dynamic Data Sources Synonyms – Creation And Usage Options	**20%**	**9**

Instructional Method and Pedagogy: (Max. 100 words)
The instructional method for Power BI will encompass a combination of lecture sessions, real-life case studies, interactive presentations, assignments, tutorials, and hands-on projects. The lectures will provide a comprehensive understanding of the theoretical concepts and practical applications of Power BI. Real- life case studies will demonstrate how Power BI is used in various industries and problem-solving scenarios. Interactive presentations will engage students in discussions and encourage critical thinking. Assignments and tutorials will offer opportunities for practical application and skill development, while hands-on projects will allow students to work on real-world data analysis tasks using Power BI.

Course Objectives:	**Business Intelligence Foundation: To provide a comprehensi ve understandin g of Power**

	BI's role in data-driven decision making and its advantages over traditional
	reporting tools. **System Architecture: To familiarize students with the end-to-end Power BI architecture, including data connectivity options and environment setup.** **Report Engineering: To equip students with the technical skills to integrate heterogeneou s data sources and apply complex filters for targeted reporting.** **Visual Storytelling: To enable students to utilize advanced visualization techniques and customizatio n options to communicate data insights effectively.** **Data Modeling & Interactivity: To foster the ability to create interactive reports using data**
	hierarchies, parameters, and drill-through functionalitie s for deep-dive analysis.
After successful completion of the above course, students will be able to: CO1: Evaluate the significance of Power BI in the context of data analysis and reporting. (Remembering) CO2: Analyse the components and features of Power BI, including its architecture and installation process. (Understanding) CO3: Create reports in Power BI by utilizing different data sources and applying various filters. (Applying) CO4: Design visually appealing and	CO1: Remembering CO2: Understanding CO3: Applying CO4: Analysing CO5: Creating

informative visualizations using different chart types and customization options in Power BI. (Analyzing) CO5: Manage data hierarchies, implement drill-down functionalities, and utilize report parameters effectively in Power BI. (Creating)	

Learning Resources	
1.	Textbooks: 1. Microsoft Power BI Dashboards Step by Step, First Edition, By pearson 2. Analyzing Data with Microsoft Power BI and Power Pivot for Excel. by Ferrari Alberto , Russo Marco, PHI LEARNING PVT. LTD. | MICROSOFT PRESS
2.	Journals, Periodicals, Reference 1. Mastering Microsoft Power BI: Expert techniques for effective data analytics and business intelligence, brett powell , Packt Publishing 2. Microsoft Power BI Complete Reference: Bring your data to life with the powerful features of Microsoft Power BI, by Devin Knight , Brian Knight , Mitchell Pearson , Manuel Quintana , Brett Powell , Packt Publishing Limited.
3.	Other Electronic Resources:

Evaluation Scheme	**Total Marks**	
Theory: Mid semester Marks	20 marks	
Theory: End Semester Marks	40 marks	
Theory: Continuous Evaluation Component Marks		
	Attendance	05 marks
	MCQs	10 marks
	Open Book Assignment	15 marks
	Article Review	10 marks
	Total	**40 Marks**

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	2	2
CO2	3	1	1	1	2
CO3	3	1	1	3	3
CO4	3	1	1	3	3
CO5	3	1	1	3	3

Course Outcomes	31. CO1: Explain the strategic importance of Power BI in the data analysis lifecycle to justify its use in organizational reporting.

	32. CO2: Describe the interaction between Power BI Desktop, Service, and Gateway to manage the data visualization workflow. 33. CO3: Construct comprehensive reports by integrating diverse datasets and applying slicers/filters to meet specific business requirements. 34. CO4: Apply appropriate visualization types (Map, Gauge, Waterfall) and formatting options to transform raw data into actionable insights. 35. CO5: Formulate interactive dashboards that utilize drill-down and parameter-driven features to enable multi-dimensional data exploration.

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE AECC601	COURSE NAME Indian Constitution	SEMESTER V

Teaching Scheme (Hours)				Teaching Credit			
Lectur e	Practical	Tutorial	Total Hours	Lectur e	Practical	Tutorial	Total Credit
30	0	0	30	2	0	0	2

Course Prerequisites	• Basic understanding of Indian polity and governance (recommended completion of an introductory course on the Indian Constitution or Political Science). • Familiarity with key economic concepts such as fiscal policy, federalism, and economic justice. • Proficiency in legal terminology and interpretation is beneficial but not mandatory.
Course Category	Value Added Course
Course focus	• To explore the intersection of economic policies and constitutional provisions in India. • To analyze the historical, legal, and economic implications of landmark constitutional cases. • To understand the dynamic balance between economic liberty and regulation within the framework of the Indian Constitution.
Rationale	1. Develop an understanding of the Indian Constitution beyond legal and political lenses, emphasizing its significance for business students. 2. Recognize the importance of comprehending constitutional basics and their impact on trade, economy, and business practices. 3. Analyze the inclusion of economic justice in the preamble and its implications for post-colonial economic policies. 4. Explore the legal history of competing claims between economic development and principles of equity and justice in India. 5. Examine the transition from state-led industrialization to liberalization, highlighting the constitutional underpinnings of these economic shifts. 6. Investigate the constitutional provisions relevant to business, such as the fundamental right to practice any profession, occupation, trade, or business as enshrined in Article 19.
Course Revision/	

Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	1. **Constitutional Literacy: To provide students with a comprehensive knowledge of the specific constitutional articles and landmark case studies that govern economic activities and business rights in India.** 2. **Historical & Fiscal Governance: To enable students to understand the transition of the Constitution into an economic framework and to analyze the complexities of Union-State financial relations.** 3. **Strategic Application: To foster the ability to link constitutional mandates and historical legal rulings with modern-day business regulations and economic policy challenges.** 4. **Legal Synthesis: To equip students with the analytical skills to evaluate the dynamic balance between economic liberty (Fundamental Rights) and the**

	principles of social equity and justice. 5. **Policy Evaluation: To develop the capability to appraise how constitutional amendments and fiscal policies influence the overall national economic landscape.** 6. **Innovation in Governance: To encourage the formulation of innovative, case-based solutions and frameworks that align economic growth with constitutional amendments and social justice.**

Course Content	**Weightage**	**Contact hours**
Unit 1 An Economic History of the Constitution of India Historical understanding of the constitution as an economic document. Understanding the Preamble, Starting from the land reform cases in the 1950s to the validity of the bitcoin ban imposed by the RBI, this module signpost all of the important economic moments in the constitutional history of post-colonial India; Constitutional design, Legal Regulation and economic justice	**20%**	**7**
Unit 2 Fundamental Rights and Business in India Article 19(1)(g), grants every citizen the right, to practise any profession, or to carry on any profession, occupation, trade, or business. Like other fundamental rights, this right is subject to reasonable restrictions impose by the state. This particular provision of the Constitution has been one of the most severely litigated freedoms. Fundamental Duties.	**30%**	8
Unit 3 Fiscal Federalism Article articles 301 to 307 of the Constitution pertains to Trade, Commerce and Intercourse within the Territory of India; Challenges associated with fiscal federalism in India including the vertical fiscal imbalance; Article 280 of the Constitution.	**20%**	**7**
Unit 4 Constitutional battles that shaped the economy This module will be taught through key case studies that demonstrate the complex and fascinating overlap between the constitution and business and shall use Saurabh Kirpal's book Fifteen Judgments: Cases that Shaped India's Financial Landscape as our guide through this landscape. The case studies include the banning of diesel engine cars, Telecom regulation and ownership of broadcast media, Demonetisation, Aadhaar, the lifting of restrictions on dealing in cryptocurrencies	**30%**	**8**

Learning Resources	
1.	**Textbook:** **References:** • The Oxford Handbook of the Indian Constitution, Oxford university press. Cases• Rustom Cavasjee Cooper v. Union of India, (1970) 1 SCC 248 • State of Rajasthan v. Mohan Lal Vyas, AIR 1971 SC 2068 (confirmation of a private monopoly, not a violation of fundamental right) • Mithilesh Garg v. Union of India, (1992) 1 SCC 168 : AIR 1992 SC 221 (Right to carry on business, not breached when it is liberalised) • Chintamanrao v. The State of Madhya Pradesh, AIR 1951 SC 118 (scope of reasonable restrictions in relation to trade and occupation) • Cooverjee B. Bharucha v. Excise Commissioner, Ajmer, AIR 1954 SC 220 (the reasonableness of the restriction imposed may depend upon the nature of the business and prevailing conditions including public health and morality) • T. B. Ibrahim v. Regional Transport Authority. Tanjore, AIR 1953 SC 79 • Harman Singh v. RTA, Calcutta, AIR 1954 SC 190 • Dwarka Prasad Laxmi Narain v. State of U.P., AIR 1954 SC 224 • State of Bombay v. R.M.D. Chamarbaugwala, AIR 1957 SC 699 • Parbhani Transport Coop. Society Ltd. v. Regional Transport Authority, Aurangabad, AIR 1960 SC 801 Model curriculum for UG Degree in BBA 67 • State of Bombay v. R. M. D. Chamarbaugwala, (1957) S.C.R. 874,

	• G.K.Krishnan vs State of Tamil Nadu, 1975 SCC (1) 375 • Automobile Transport (Rajasthan) Ltd. Vs State of Rajasthan, AIR 1962 SC 1406
2.	**Reference Books:** Granville Austin – The Indian Constitution: Cornerstone of a Nation. Saurabh Kirpal – Fifteen Judgments: Cases that Shaped India's Financial Landscape. M.P. Jain – Indian Constitutional Law. H.M. Seervai – Constitutional Law of India. D.D. Basu – Introduction to the Constitution of India.
3.	**Journals & Periodicals:** Economic and Political Weekly (EPW) Indian Journal of Constitutional Law. National Law School of India Review. Journal of Indian Law and Society. The Indian Journal of Economics.
4.	**Other Electronic Resources:** Websites of the Supreme Court of India and High Courts (for judgments and case laws). National Informatics Centre (NIC) - Online Constitution Repository. Blogs: Indian Constitutional Law and Philosophy and SpicyIP. Online courses and resources from platforms like Coursera, edX, and SWAYAM.

Evaluation Scheme	**Total Marks: 100**		
Mid Semester Marks	20 marks		
End Semester Marks	40 marks		
Continuous Evaluation 40 marks			
	Class Participation	10 marks	
	Quiz	5 marks	
	Skill Enhancement activities/ Case Study/ Research Paper	15 marks	
	Presentation	10 marks	

Course Outcomes	CO1: Explain the evolution of the Constitution to interpret its impact on post-colonial economic planning and foundational business principles. CO2: Examine the legal implications of Articles 19 and 301-307 to determine their influence on the freedom of trade and commerce in India. CO3: Appraise landmark judicial decisions to assess their long-term consequences on corporate governance and state regulatory powers. CO4: Demonstrate the application of fiscal federalism principles to resolve conflicts in Union-State financial relations and tax distribution. CO5: Formulate policy recommendations or legal frameworks that align economic growth strategies with the constitutional mandate of social and economic justice.

CO	PO1	PO2	PO3	PO4	PO5
CO1	2	1	2	1	1
CO2	3	1	2	1	2
CO3	3	1	3	1	3
CO4	3	1	2	1	3
CO5	3	1	3	1	3

COURSE CODE BBA601	COURSE NAME Project Management	SEMESTER VI

Teaching Scheme (Hours)				Teaching Credit			
Lectu re	Tutori al	Practic al	Total Hours	Lectur e	Tutori al	Practic al	Total Credit
3	2	0	5	3	1	0	4

Course Prerequisites	**Basic knowledge of planning, organizing, leadership, and resource allocation concepts:** Basic understanding of business concepts and management principles. Familiarity with project-related terminology and tools is helpful. Prior experience in any organizational or team-based environment will enhance comprehension of the practical aspects of project management.
Course Category	Basic Core Course
Course focus	**Planning, Execution and Delivery:** The Project Management course focuses on the fundamentals of managing projects through their lifecycle, from initiation to closure. It covers project planning, scheduling, resource allocation, and risk management. Students will learn how to use tools like Microsoft Project for effective project execution and monitoring. Agile methodologies are introduced in the final unit to compare with traditional methods.
Rationale	1.To provide a comprehensive understanding of the project management lifecycle from inception to closure. 2.To enhance skills in using project management tools such as Microsoft Project for managing complex projects. 3.To explore effective stakeholder management and communication strategies critical for project success. 4.To analyze risk management strategies and their application to ensure project success under varying circumstances.
Course Revision/ Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	Conceptual Foundation: To provide a comprehensive understanding of the project management lifecycle, from inception to closure, and the strategic roles involved. Planning & Scheduling: To enhance skills in using specialized tools for managing complex project schedules, budgets, and resource allocation. Tool Proficiency: To equip students with the ability to use Microsoft Project and Gantt charts for effective project execution and monitoring. Risk & Quality Management: To analyze risk management strategies and their application to ensure project quality and alignment with goals. Strategic Delivery: To explore effective stakeholder management and compare traditional methods with Agile methodologies for successful delivery.

Course Content	Weightage (25%)	Contact hours
Unit 1 Fundamentals of Project Management This unit covers the core concepts of project management, including the project life cycle, the role of the project manager, and the organizational context of projects. Students will learn about the stages of a project from initiation to closure and the key responsibilities of a project manager in driving project success.	**25%**	**15**
Unit 2 Project Planning and Tools Focusing on the planning phase of project management, this unit explores setting project scope and objectives, developing a Work Breakdown Structure (WBS),	**25%**	**15**

and managing time through scheduling techniques such as Gantt charts and PERT/CPM. Practical application includes using Microsoft Project to create and manage schedules, emphasizing the integration of project management tools to streamline project planning.		
Unit 3 Executing and Monitoring Projects This unit delves into resource allocation, budgeting, and quality control within project execution. Students will also learn about risk management processes including identification, analysis, and response strategies. Practical exercises will include resource management and performance tracking using Microsoft Project, highlighting effective control measures to ensure project alignment with planned objectives.	**25%**	**15**
Unit 4 Concluding Projects and Agile Methodologies The final unit discusses the closing phase of projects, including performance measurement, stakeholder communication, and post-project evaluation. Additionally, this unit introduces Agile project management principles and the Scrum framework, comparing Agile with traditional project management methods to provide students with a broader understanding of managing projects in dynamic environments.	**25%**	**15**

Learning Resources	
1.	**Textbook:** 1. Information Technology Project Management, by Kathy Schwalbe, Cengage Learning. 2. Project Management: A Managerial Approach, by Jack R. Meredith and Samuel J. Mantel Jr., Wiley
2.	**Reference Books:** 1. Understand and apply the key principles of project management to various project environments. Model curriculum for UG Degree in BBA 133 2. Gain proficiency in using Microsoft Project for project planning, execution, monitoring, and closing. 3. Develop skills in stakeholder management and communication strategies essential for project success. 4. Explore and apply risk management techniques to mitigate potential project issues.

3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**			
Mid Semester Marks	20 marks			
End Semester Marks	40 marks			
Continuous Evaluation 40 marks				
		Class Participation	10 marks	
		Quiz	5 marks	
		Skill Enhancement activities/ Case Study/ Research Paper	15 marks	
		Presentation	10 marks	

Course Outcomes	CO1: Explain the project lifecycle and the roles of key stakeholders in an organizational environment using standard PM terminology.

	CO2: Formulate a project plan that incorporates scope, WBS, and resource allocation strategies to address specific business needs. CO3: Construct project schedules and monitoring charts using Microsoft Project to track progress and manage dependencies effectively. CO4: Analyze project risks and quality metrics to recommend data-driven mitigation strategies in a technologically driven business environment. CO5: Evaluate project outcomes against ethical standards and stakeholder requirements to ensure sustainable and holistic business solutions. CO6: Design a comprehensive project delivery framework that integrates Agile and traditional methods to solve complex cross-functional problems.

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	2	1
CO2	3	3	1	1	3
CO3	3	2	1	2	3
CO4	3	2	1	1	3
CO5	3	2	3	1	3
CO6	3	3	1	2	3

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA603	**COURSE NAME** Introduction to AI and Machine Learning	**SEMESTER** VI

Teaching Scheme (Hours)	**Teaching Credit**

Lecture	**Practical**	**Tutorial**	**Total Hours**	**Lecture**	**Practical**	**Tutorial**	**Total Credit**
45	0	0	45	3	0	0	3

Course Pre-requisites	**Basic knowledge of Business**
Course Category	Basic Core Courses
Course focus	Employability/ Machine learningSkills/ Entrepreneurship
Rationale	This subject on Machine Learning and Artificial Intelligence equips students with the knowledge and skills to understand and apply machine learning algorithms and techniques in real-world scenarios. It covers a wide range of topics, including supervised and unsupervised learning, discriminative models, Gaussian models, logic and knowledge representation, automated reasoning, and decision theory. The subject aims to develop students' analytical and problem-solving abilities, preparing them for the evolving field of AI. Instructional methods include lectures, hands-on programming exercises, case studies, and discussions to enhance understanding and practical application of the concepts.
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives (As per Blooms' Taxonomy)	1.Foundational AI Concepts: To introduce the fundamental terminologies and categories of machine learning to provide a conceptual base for business applications. 2.Modeling Techniques: To familiarize students with various discriminative models and algorithms used for solving business prediction and classification problems. 3.Model Optimization: To enable students to understand the processes of model evaluation and tuning to improve the accuracy of machine learning solutions. 4.Statistical Inference: To explain the principles of Gaussian models and clustering algorithms for statistical inference in data analysis. 5.Intelligent Decision Systems: To provide insights into logic-based reasoning and decision theory for enhancing intelligent problem-solving in business contexts.

Course Content (Theory)	**Weightage**	**Contact hours**
Introduction: Machine learning, Terminologies in machine learning, Types of machine learning: supervised, unsupervised, semi-supervised learning. Discriminative Models: Least Square Regression, 28 Gradient Descent Algorithm, Univariate and Multivariate Linear Regression, Prediction Model, probabilistic interpretation, Regularization, Logistic regression, multi-class	**20%**	**9**
classification, Support Vector Machines- Large margin classifiers, Nonlinear SVM, kernel functions, SMO algorithm		
Model evaluation and improvement, Regularization, Bias Variance, Hyper- parameter Tuning. Computational Learning theory- Sample complexity, exhausted version space, PAC Learning, agnostic learner, VC dimensions, Sample complexity - Mistake bounds. Gaussian models: Multivariate Gaussian distributions, Maximum Likelihood Estimate, Inferring parameters, Mixture models, EM algorithm for clustering and learning with latent variables	**20%**	**9**
Logic and Knowledge Representation - Knowledge base - Ontology - Commonsense Knowledge Representation of Commonsense knowledge – Graphical models – Belief	**20%**	**9**

networks - State space representation – Vector representation - Propositional logic and predicate logic - Propositional and predicate logic - Syntax - Informal and formal semantics - Validity, satisfiability - Semantic entailment - Equivalence - De Morgan's laws - Decidable problems - Many-sorted logic - first-order, aspects of higher-order logic		
Automated Reasoning– Formal program techniques: specification by pre- and post-conditions, derivation and verification of programs, invariants. Strategic Reasoning in AI - Agents, strategic behaviours of agents in multiagent systems (MAS) by using the language of alternating-time temporal logic (ATL), an extension of the temporal logics CTL and LTL which allows to express game- theoretical notions such as the existence of a winning strategy for a group of agents - Expert system-based reasoning - Production system, semantic network, and frame - Soft computing based reasoning – Fuzzy logic	**20%**	**9**
Decision Theory Decision-Making: basics of utility theory, decision theory, sequential decision problems, decision networks, elementary game theory, sample applications; Problem-solving through Search: forward and backward, state-space, blind, heuristic, hill climbing, best-first, A, A*, AO*, minimax, constraint propagation, intelligent search, meta-heuristics, problem-reduction, neural and stochastic; Intelligent agents - reactive, deliberative, goal-driven, utility-driven, and learning agents artificial Intelligence programming techniques; Planning: planning as search, partial order planning, construction and use of planning graph	**20%**	**9**

Instructional Method and Pedagogy: (Max. 100 words)
Interactive presentations will engage students in discussions and encourage critical thinking. Assignments and tutorials will offer opportunities for practical application and skill development

Course Objectives:	**Foundational AI Concepts: To introduce the fundamental terminologies and categories of machine learning to provide a conceptual base for business applications.** **Modeling Techniques: To familiarize students with various discriminativ e models and algorithms used for solving business prediction and classification problems.** **Model Optimization : To enable students to understand the processes of model evaluation and tuning to improve the accuracy of machine learning solutions.** **Statistical Inference: To explain the**

	principles of Gaussian models and clustering algorithms for statistical inference in data analysis. **Intelligent Decision Systems: To provide insights into logic-based reasoning and decision theory for enhancing intelligent**
	problem-solving in business contexts.
After successful completion of the above course, students will be able to: **CO1**:Recall and explain the core concepts, terminologies, and types of machine learning. (Remembering) **CO2:**Apply discriminative models to solve prediction and classification problems using appropriate algorithms and techniques. (Applying) **CO3:**Evaluate and improve machine learning models through model evaluation, regularization, bias-variance analysis, and hyper-parameter tuning. (Evaluating) **CO4:** Analyze and apply Gaussian models for statistical inference, clustering, and learning with latent variables. (Analyzing) **CO5**: Analyze and apply logic and knowledge representation techniques, automated reasoning methods, strategic reasoning in AI, and decision theory for intelligent decision-making and problem-solving. (Analyzing)	CO1: Understand CO2: Show CO3: Examine CO4: Learns CO5: Evaluate
Learning Resources	
1.	Reference Books: Aswathapa K, “ Essentials of Business Environment” , Himalaya Publishing House
2.	Journals, Periodicals, Reference 1. A.C. Fernando, Business Environment, Pearson Publication 2. Shaikh Salim, Business Environment, Pearson Publication

	3. Francis Cherunillam, Business Environment, Himalaya Publishing House. 4. Ian Worthington & Chris Britton, The Business Environment, Pearson Publicatio 5. International journal of Business Environment, Inderscience Publishers 6. Business Strategy and the Envrionment, wiley library 7. International Journal of Business environment, SCImago
3.	Other Electronic Resources:

Evaluation Scheme	**Total Marks**
Theory: Mid semester Marks	20 marks
Theory: End Semester Marks	40 marks
Theory: Continuous Evaluation Component Marks	Attendance 05 marks MCQs 10 marks Open Book Assignment 15 marks Article Review 10 marks **Total 40 Marks**

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	2
CO2	3	1	1	1	3
CO3	3	1	1	1	3
CO4	3	1	1	1	3
CO5	3	1	1	1	3

Course Outcomes	36. CO1: Classify different types of machine learning (supervised, unsupervised, semi-supervised) and their relevance to specific business analytics domains. 37. CO2: Execute discriminative models like Linear and Logistic Regression using standard tools to solve business classification and prediction problems. 38. CO3: Assess the performance of machine learning models using bias-variance analysis and hyper-parameter tuning to optimize predictive accuracy. 39. CO4: Demonstrate the use of Gaussian mixture models and the EM algorithm for effective data clustering and statistical inference. 40. CO5: Formulate intelligent decision-making strategies by integrating logic-based reasoning and decision theory to solve complex business problems.

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA604	COURSE NAME Financial Analytics	SEMESTER VI

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Tutorial	Practical	Total Hours	Lecture	Tutorial	Practical	Total Credit
3	1	0	4	3	1	0	4

Course Prerequisites	Domain Knowledge Financial Analytical Tools in terms of Time Series and Risk Management
Course Category	Financial Specialization Elective
Course focus	The Course will cover the fundamental tools of time series and Risk- Return Parameters in terms of the firm's valuation for predicting the future behaviour based on the historical data pattern.
Rationale	**This course aims to help students** 1. Understand the wide variety of applications of financial analytics 2. Understand the sources of data, methods of importing and cleaning data 3. Implement basic financial analytics models using R and/or Python
Course Revision/ Approval Date:	
Course Objectives **(As per Blooms' Taxonomy)**	Strategic Financial Foundation: To provide a comprehensive understanding of the interplay between capital structure, cost of capital, and strategic financial risk management for value maximization. Valuation Frameworks: To familiarize students with diverse enterprise valuation techniques including DCF and market multiples to estimate firm value in varied market conditions. Distress & Reorganization Analysis: To equip students with the analytical skills to identify financial distress and understand the legal and financial mechanisms of reorganization and liquidation. M&A Strategic Delivery: To enable students to critically assess merger and acquisition opportunities by integrating due diligence, tax implications, and valuation methodologies. cost of capital concepts, and identifying strategies for shareholder value and corporate value maximization.
	CO2: Apply enterprise valuation methodologies such as discounted cash flow (DCF), market multiples, and precedent transactions to estimate equity and enterprise value, and evaluate firm valuation using advanced models like CAPM and Adjusted Present Value. **CO3:** Analyze the causes and symptoms of bankruptcy, explore strategies for reorganization and liquidation, and evaluate exit strategies, including tax implications and negotiations, to assess the financial and operational health of distressed firms. CO4: To Evaluate merger and acquisition strategies by understandingtypes,valuationmethodologies,andfinancing techniqueswhileaddressingduediligence,legalissues,tax considerations, and shareholder impacts for effective decision-making.

Course Content	Weightage	Contact hours

Unit 1: **Financial Statement Analytics** Projecting financial statements based on growth assumptions for all components, Modelling Cash flow, performing sensitivity analysis, break-even modelling, testing for bankruptcy risks	**25%**	**15**
Unit 2: Credit Risk Analytics Utilizing loan performance data from a financial institution to build a credit default risk model using Logistic regression; Extending the Altman Z score to Indian corporates; Using AI/ML tools such as ANN to build a credit risk model	**25%**	**15**
Unit 3: Financial Time Series Analytics Data importing and cleaning, plotting multiple series, examining nature of data, forecasting using MA, EWMA, ARMA, ARCH and GARCH	**25%**	**15**
Unit 4: Portfolio and Trading Analytics Portfolio optimisation using Markowitz's mean-variance optimization model, estimating Sharpe Ratio, Treynor Ratio, Jensen's Alpha; Trading based on Quantitative indicator-based trading models – MA, RSI, ROC, MACD; Simulating and optimising trading strategies; Using AI/ML tools such as ANN	**25%**	**15**
for predicting stock prices		

Learning Resources	
1.	**Textbook (Latest Edition):** 1. Bennett, M. J., Hugen, D. L., Financial analytics with R, Cambridge University Press. 2. Ang, C. S., Analysing Financial Data and Implementing Financial Models using R, Springer 3. Weiming, J. M., Mastering Python for Finance, Packt Publishing 4. Yan, Y., Python for Finance, Packt Publishing
2.	**Reference Books:**
3.	**Journals & Periodicals:**
4.	**Other Electronic Resources:**

Evaluation Scheme	**Total Marks: 100**
Mid Semester Marks	20 marks
End Semester Marks	40 marks

Continuous Evaluation 40 marks								
			Class Participatio	n		10 marks		
			Quiz			5 marks		
			Skill Enhanceme Case Study/ Rese	nt Activities/ arch Paper		15 marks		
			Presentation			10 marks		

Course Outcomes	• CO1: Explain the impact of capital structure and financial risks on corporate value maximization using industry- standard financial metrics. • CO2: Construct enterprise valuation models (DCF and Market Multiples) using analytical tools to estimate the intrinsic value of a firm. • CO3: Appraise the financial health of a firm to determine the feasibility of reorganization or liquidation strategies based on bankruptcy indicators. • CO4: Formulate a strategic M&A recommendation by integrating due diligence findings, tax implications, and financial valuation results.

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	3

CO2	3	1	1	1	3
CO3	3	1	1	1	3
CO4	3	1	2	1	3

COURSE CODE	COURSE NAME	SEMESTER
BBA605	**Data Visualization Tools – Tableau**	**VI**

Teaching Scheme (Hours)				Teaching Credit			
Lecture	**Practical**	**Tutorial**	**Total Hours**	**Lecture**	**Practical**	**Tutorial**	**Total Credit**
45	0	0	45	3	0	0	3

Course Pre-requisites	**Basic knowledge of Business**
Course Category	Basic Core Courses
Course focus	Employability/ Analytical Skills/ Entrepreneurship
Rationale	This subject is designed to equip students with essential skills in Tableau, enabling them to analyze data effectively, create meaningful visualizations, and generate actionable insights for decision-making in diverse professional contexts.
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives (As per Blooms' Taxonomy)	1.Data Connectivity Foundation: To introduce the fundamental interface of Tableau and provide hands-on guidance on connecting diverse data sources for analysis. 2.Data Organization Techniques: To familiarize students with advanced data structuring methods, including hierarchies and parameters, to enhance data granularity. 3.Visual Literacy: To equip students with the ability to select and configure appropriate visual encodings like heatmaps and scatter plots for different data types. 4.Advanced Reporting Skills: To enable students to construct complex, multi-layered reports using dual-axis and blended-axis techniques for deeper insights. 5.Analytical Logic & Filtering: To demonstrate the application of calculated fields and multi-level filtering logic to refine and focus data analysis.

Course Content (Theory)	Weightage	Contact hours
Unit 1 Learn Tableau Basic Reports Connecting to excel files , Connecting to text files	**20%**	**9**
Connecting to Microsoft Analysis services , Creating and removing hierarchies		
Unit: 2 Tableaus Basic Reports Parameters, Grouping Examples – 1,Grouping Examples – 2 Combined sets ,Creating a first report	**20%**	**9**
Data Labels ,Create Folders ,Sorting Data		
Unit 3 Tableaus Charts Area, Bar , Box, Bubble, Bump, Bullet, Circle, Gantt, Line, Lollipop, Line, Pareto, Pie, Scatter, Stacked, Tree, World Cloud, Waterfall. Filled, Crosstab, Combines, Motion, Heatmap	**20%**	**9**
Unit 4 Tableaus Advanced Reports Dual Axis Reports Blended Axis Individual Axis ,Add reference Lines , Reference Distribution Basic Map ,Mapbox maps as background map	**20%**	**9**
Unit:5 Tableaus Calculations & Filters	**20%**	**9**

Calculated Fields Basic Approach to calculate rank Filter’s introduction Top and Bottom filters Context filter Slicing Filters Data Sources Filters Extract Filters		

Instructional Method and Pedagogy: (Max. 100 words)

This course will employ a combination of lectures, hands-on exercises, and guided practice sessions. Instructors will provide step-by-step demonstrations of connecting Tableau to different data sources, creating and removing hierarchies, and utilizing various features like parameters, grouping, and data labels. Students will actively engage in practical exercises to reinforce their understanding and gain proficiency in creating basic reports, visualizations, and advanced reports.

Course Objectives:	**Blooms’ Taxonomy Domain**
Data Connectivity Foundation: To introduce the fundamental interface of Tableau and provide hands-on guidance on connecting diverse data sources for analysis. Data Organization Techniques: To familiarize students with advanced data structuring methods, including hierarchies and parameters, to enhance data granularity. Visual Literacy: To equip students with the ability to select and configure appropriate visual encodings like heatmaps and scatter plots for different data types. Advanced Reporting Skills: To enable students to construct complex, multi-layered reports using dual-axis and blended-axis techniques for deeper insights. Analytical Logic & Filtering: To demonstrate the application of calculated fields and multi-level filtering logic to refine and focus data analysis.	To To To To To

Learning Resources	
1.	Text Book: Visual Analytics with Tableau Book by Alexander Loth
2.	Journals, Periodicals, Reference Reference Books: 1. Tableau Your Data! Fast and Easy Visual Analysis with Tableau Software Book by Daniel G. Murray
3.	1. Other Electronic Resources:

Evaluation Scheme		**Total Marks**		
Theory: Mid semester Marks		20 marks		
Theory: End Semester Marks		40 marks		
Theory: Continuous Evaluation Component Marks				
		Attendance	05 marks	
		MCQs	10 marks	
		Open Book Assignment	15 marks	
		Article Review	10 marks	
		Total	**40 Marks**	

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	2
CO2	3	1	1	1	3
CO3	3	1	1	3	3
CO4	3	1	1	3	3
CO5	3	1	1	1	3

Program outcome

Course Outcomes	41. CO1: Demonstrate the ability to connect and prepare data from multiple external sources (Excel, SQL, etc.) for real-time visualization in Tableau. 42. CO2: Organize complex datasets using parameters and hierarchies to allow for interactive and multi-dimensional data exploration. 43. CO3: Select and justify the use of specific visualization types (Heatmaps, Scatter plots) to represent trends and correlations in business data accurately. 44. CO4: Construct interactive dashboards using dual-axis and blended-axis reports to communicate complex data insights to stakeholders. 45. CO5: Execute complex data manipulations using calculated fields and context filters to generate targeted business intelligence reports.

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA606	COURSE NAME Programming in R	SEMESTER VI

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Practical	Tutorial	Total Hours	Lecture	Practical	Tutorial	Total Credit
45	0	0	45	3	0	0	3

Course Pre-requisites	Basic Information about Management
Course Category	Core
Course focus	Skills
Rationale	R offers a wide variety of statistics-related libraries and provides a favorable environment for statistical computing and design. In addition, the R programming language gets used by many quantitative analysts as a programming tool since it's useful for data importing and cleaning
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives	Computational Foundation: To introduce the R environment and core data structures (vectors, matrices, lists) to build a foundation for statistical programming. Data Integration: To familiarize students with the techniques of importing, cleaning, and transforming data from diverse external sources for analytical readiness. Statistical Visualization: To equip students with the skills to utilize R's graphical capabilities for summarizing data and performing descriptive statistical analysis. Advanced Statistical Modeling: To enable students to apply advanced statistical tests and modeling techniques (Regression, ANOVA) for data-driven decision making. Modular Programming: To provide insights into the R package ecosystem, teaching students how to develop, manage, and deploy reusable code packages.

Course Content (Theory)	Weightage (%)	Contact hours
Unit 1 : Introduction R interpreter, Introduction to major R data structures like vectors, matrices, arrays, list and data frames, Control Structures, vectorized if and multiple selection, functions.	20%	**9**
Unit 2: Installing, loading and using packages: Read/write data from/in files, extracting data from web-sites, Clean data, Transform data by sorting, adding/removing new/existing columns, centring, scaling and normalizing the data values, converting types of values, using string in-built functions, Statistical analysis of data for summarizing and understanding data, Visualizing data using scatter plot, line plot, bar chart, histogram and box plot	20%	**9**
Unit 3: Designing GUI: Building interactive application and connecting it with database	20%	**9**
Unit 4: R-Function : function definition, Built in functions: R-Strings – Manipulating Text in Data: R Vectors – Sequence vector, rep function, vector access, vector names, vector math, vector recycling, vector element sorting - R List - Creating a List, R Matrices – Accessing Elements of a Matrix, Matrix Computations: Addition, subtraction, Multiplication and Division- R Arrays: R Factors	20%	**9**
Unit 5 Descriptive Statistics: Data Range, Frequencies, Mode, Mean and Median: Mean Applying Trim Option, Applying	20%	**9**

NA Option, Median - Mode - Standard Deviation – Correlation - Spotting Problems in Data with Visualization: visually Checking Distributions for a single Variable - R –Pie Charts: Pie Chart title and Colors – Slice Percentages and Chart Legend, 3D Pie Chart – R Histograms – Density Plot - R – Bar Charts: Bar Chart Labels, Title and Colors.		

Instructional Method and Pedagogy: (Max. 100 words)
Use of ICT tools in conjunction with traditional class room teaching methods Interactive sessions
Class discussions

Course Objectives:	**Bloom's Taxonomy Domain**
Computational Foundation: To introduce the R environment and core data structures (vectors, matrices, lists) to build a foundation for statistical programming. Data Integration: To familiarize students with the techniques of importing, cleaning, and transforming data from diverse external sources for analytical readiness. Statistical Visualization: To equip students with the skills to utilize R's graphical capabilities for summarizing data and performing descriptive statistical analysis. Advanced Statistical Modeling: To enable students to apply advanced statistical tests and modeling techniques (Regression, ANOVA) for data-driven decision making. Modular Programming: To provide insights into the R package ecosystem, teaching students how to develop, manage, and deploy reusable code packages.	To To To To To

Learning Resources	
1.	Reference Books: 1. Cotton, R., Learning R: a step by step function guide to data analysis. 1st edition. O'reilly
	Media Inc. 2. Gardener, M.(2017). Beginning R: The statistical programming language, WILEY 3. Lawrence, M., & Verzani, J. (2016). Programming Graphical User Interfaces in R. CRC press. (ebook)
2.	Journals, Periodicals, Reference 1. Financial Express, 2. Economics Times, 3. Business Standard
3.	Other Electronic Resources: https://jrnold.github.io/r4ds-exercise-solutions/index.html https:/

Evaluation Scheme	**Total Marks**
Theory: Mid semester Marks	20 marks
Theory: End Semester Marks	40 marks
Theory: **Continuous Evaluation Component Marks**	Attendance 05 marks MCQs 10 marks Open Book Assignment 15 marks Article Review 10 marks **Total 40 Marks**

Mapping of POs & COs

CO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	1	1	2
CO2	3	1	1	1	2
CO3	3	1	1	3	3
CO4	3	1	1	1	3
CO5	3	1	1	1	2

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

Course Outcomes	46. CO1: Develop functional R scripts utilizing control structures and vectorized operations to solve basic business logic problems. 47. CO2: Execute data preprocessing workflows, including data cleaning and transformation, using R to prepare datasets for subsequent analysis. 48. CO3: Construct professional-grade data visualizations and summary statistics to identify patterns and trends in business datasets. 49. CO4: Appraise business hypotheses by performing advanced statistical tests (t-tests, ANOVA) and regression analysis using R packages.
	50. CO5: Assemble custom R packages and manage environment dependencies to ensure the reproducibility and scalability of data analysis projects.

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE AECC501	Disaster Risk Management					
			L	T	P	C
			2	0	0	2
Total Credits:2	Total Hours in semester: 30	Total Marks: 100				

1	Course Pre-requisites: Nil
2	Course Category: Ability Enhancement Courses
3	Course Revision/Approval Date:
4	Course Objectives:

4.1 To introduce inter-relationship between disaster and development

4.2 To introduce types of disasters with case studies and create awareness.

4.3 To introduce various disaster management framework and strategies adopted at national and international levels.

4.4 To study the effective use of science for mitigating disasters

4.5 To study case study of various famous disasters
.

Course Content	Weightage	Contact hours	Pedagogy
Unit1: **Theory: Introduction to** **Disasters-**Understanding the Concepts and Definitions of Disaster, Hazard,Vulnerability Risk, Capacity – Disaster and Development, and Disaster Management **Fundamental of Disasters-**Types,Trends, Causes, Consequences and Control: Geological Disasters, Hydro- Meteorological Disasters, Biological Disasters, Technological Disasters, and Man-made Disasters. Global Disaster Trends – Emerging Risks of Disasters – Climate Change and Urban Disasters.	20%	6	Chalk and Duster and PPT,Notes
Unit2: **Theory: Disaster Management Cycle and Framework-**Disaster Management Cycle – Paradigm Shift in Disaster Management, Pre-Disaster – Risk Assessment and Analysis, Risk Mapping, Zonation, Microzonation, Prevention and Mitigation of Disasters, Early Warning System, Preparedness, Capacity Development; Awareness,DuringDisaster –Evacuation– Disaster Communication– Search and Rescue ,Emergency Operation Centre–IncidentCommand System– Relief and Rehabilitation. Post-disaster – Damage and NeedsAssessment, Restoration of Critical Infrastructure – Early Recovery–Recoinstructionand Redevelopment; IDNDR,Yokohama Strategy, Hyogo Framework of Action, Sendai framework.	25%	8	Chalk and Duster and PPT,Notes
Unit3: **Disaster Management in India** Disaster Profile of India–Mega Disasters of India and Lessons Learnt, Disaster, Management Act 2005 – Institutional and	25%	6	Chalk and Duster and PPT,Notes

Financial Mechanism, National Policy on Disaster Management, National Guidelines and Plans on Disaster Management; Role of Government (local, state and national),Non- Government and Inter-Governmental Agencies. Disaster Management Act in relation to COVID-19 pandemic.			

UNIT 4 : **Role of Science and Technology in Disaster Management** Geo-informatics in DisasterManagement (RS, GIS, GPS and RS), Disaster Communication System (Early Warning and Its Dissemination), Land ,Planning and Development Regulations, Disaster Safe Designs and Constructions, Structural and Non-Structural Mitigation of Disasters,S&TInstitutions for Disaster Management in India.	20%	6	Chalk and Duster and PPT,Notes
Unit5: **Disaster Case Studies** Various Case Studies on Disaster and Development, Disaster Prevention and Control, Risk Analysis and Management. Case study relating to COVID -19 to be explored.	10%	4	Chalk and Duster and PPT,Notes

Learning Resources	
1.	Textbooks: 1.Alexander,D.,NaturalDisasters,KluwerAcademicLondon. 2.Asthana,N.C.,AsthanaP.,DisasterManagement,AavishkarPublishers. 3.Carter, N., Disaster Management: A Disaster Manager's Handbook, Asian Development Bank 4.Collins,A.E.,DisasterandDevelopment,Routledge. 5.Coppola,D.P.,IntroductiontoInternationalDisasterManagement,2nd Edition, Elsevier Science
2.	ReferenceBooks: 1. Goyal,S.L., Encyclopedia ofDisaster Management(Vols.1-3),Deep & Deeep, New Delhi 2. Gupta,A.K.,Nair,S.S.,EnvironmentalKnowledgeforDisaster RiskManagement, NIDM, New Delhi. 3. Ibrahimbegovic,A.,Zlatar,M.,DamageAssessment and Reconstruction after War or Natural Disaster, Springer. 4. Menshikov,V.A.,Perminov,A.N.,Urlichich, Y.M., Global AerospaceMonitoring and Disaster 5. Modh,S.,IntroductiontoDisasterManagement, MacmillianPublishers India 6. Srivastava,H.N.,Gupta,G.D.,Management ofNatural

	Disasters inDeveloping Countries, Daya Publishers,

EvaluationScheme	**TotalMarks**
Midsemester Marks	30
EndSemesterMarks	50
ContinuousEvaluation Marks	Attendance 5marks Quiz 5marks Skill enhancement activities / case 5marks study Presentation/ miscellaneous 5marks activities
CourseOutcomes	CO1: Appraise the vulnerability and risk profiles of different regions to propose effective mitigation strategies for various types of hazards. CO2: Outline the roles and responsibilities of national and local authorities as per the Disaster Management Act to ensure regulatory compliance during emergencies. CO3: Design basic capacity-building and preparedness plans for organizations to enhance resilience against potential disasters. CO4: Apply scientific principles and technological tools (like early warning systems) to minimize the impact of disasters on human life and infrastructure. CO5: Evaluate past disaster case studies to derive "lessons learned" for improving future emergency response and rehabilitation efforts.
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CO	PO1	PO2	PO3	PO4	PO5
CO1	2	1	3	1	3
CO2	2	1	2	1	1
CO3	2	3	3	1	3
CO4	2	1	3	1	2
CO5	2	1	3	1	3

COURSE CODE BBA701	COURSE NAME AI for Business	SEMESTER VII

Teaching Scheme (Hours)				Teaching Credit			
Lecture	**Practical**	**Tutorial**	**Total Hours**	**Lecture**	**Practical**	**Tutorial**	**Total Credit**
45	0	15	60	3	0	1	4

Course Pre-requisites	Basics of AI: Definitions, history, and evolution. Types of AI: Narrow AI, General AI, Machine Learning, Deep Learning. Myths vs. Realities of AI in business
Course Category	Core
Course focus	This course focuses on building essential knowledge and skills in managing personal finances effectively. It introduces key areas such as budgeting, saving, investing, insurance, tax planning, and retirement planning. Emphasis is placed on real-life application and decision-making for long-term financial well-being.
Rationale	AI for Business course is designed to equip students with a thorough understanding of how artificial intelligence (AI) can be strategically applied in various business contexts. The primary objective is for students to learn how to deploy AI technologies effectively while managing the ethical considerations inherent in such implementations.
Course Revision/ Approval Date:	

Course Objectives (As per Blooms' Taxonomy)	Co 1 Remembering Define key terms and concepts related to Artificial Intelligence in a business context. Co 2 Understanding-Explain how AI technologies influence various business functions such as marketing, finance, and operations. Co 3 Applying- Apply AI tools to solve simple business problems or improve decision-making processes. Co 4 Analyzing-Analyze a business scenario to identify where AI can create value or improve efficiency. Co 5Evaluating-Evaluate the ethical and strategic implications of implementing AI in a business organization. Co 6 Creating-Design a basic AI-based solution or strategy for a selected business problem.

Course Content	Weightage	Contact hours
Unit 1: Converging Technologies: Big Data Overview, V's of Big Data, Big Data Analysis, IoT, Cloud Computing, Data Management Infrastructure, Data Analysis: Extracting Intelligence from Big Data, Changing organization Culture/Strategy/ Role of Practicing Managers, People Component of BigData & AI	**25**	
Unit 2: Introduction to AI: History & Evolution of AI , AI-Driven Business Transformation, Overview of AI technologies namely Machine Learning, Deep Learning, Natural Language Processing, Computer Vision, Robotics,Generative AI, Case study analysis of AI's impact on different industries.	**25**	
Unit 3: AI Applications in Business: AI in Finance – AI in algorithmic trading, Credit scoring models using machine learning, Fraud detection, AI in Customer Relationship Management - Personalization and recommendation systems, Chatbots and virtual assistants, Predictive customer analytics, AI in Human Resource Management – AI-driven recruitment and selection processes, Employee performance analytics, AI in workforce planning and talent	**25**	

management.		
Unit 4: Ethics in AI: Bias, fairness, and transparency, Responsible AI practices for leaders, Mitigating ethical risks in AI/ML deployment, Societal and Legal aspects of AI.	**25**	

Learning Resources	
1.	**Textbook:** Artificial Intelligence by Munish Trivedi • Artificial Intelligence for Managers by Malay A. Upadhyay • AI Rising: India's Artificial Intelligence Growth Story, Leslie D'Monte, Jayanth N. Kolla • Artificial Intelligence in Practice: How 50 Successful Companies Used AI and Machine Learning by Bernard Marr • HBR Guide to AI Basics for Managers Paperback by Harvard Business Review• Machine Learning for Algorithmic Trading: Predictive models to extract signals from market and alternative data for systematic trading strategies" by Stefan Jansen
2.	**Reference Books:** · Digital HR: A Guide to Technology-Enabled Human Resources by Deborah Waddill · AI for Marketing and Product Innovation: Powerful New Tools for Predicting Trends,Connecting with Customers, and Closing Sales by A.K. Pradeep, Andrew Appel and Stan Sthanunathan
3.	**Journals & Periodicals:** Neha Soni, Enakshi Khular Sharma, Narotam Singh, Amita Kapoor, "Artificial Intelligence in Business: From Research and Innovation to Market Deployment", Procedia Computer Science, Volume 167, 2020, Pages 2200-2210, https://doi.org/10.1016/j.procs.2020.03.272. • Nikolaos-Alexandros Perifanis, Fotis Kitsios, Investigating the Influence of Artificial Intelligence on Business Value in the Digital Era of Strategy: A Literature Review, Information 2023, 14(2), 85; https://doi.org/10.3390/info14020085
4.	**Other Electronic Resources:** Coursera · AI For Everyone by Andrew Ng (Coursera) AI Applications in Business Specialization (offered by University of Pennsylvania) · Artificial Intelligence: Business Strategies and Applications by UC Berkeley · Offers courses like: oArtificial Intelligence for Business Leaders oAI in Business: Examples and Applications · E-books & Research Databases · a. Google Books · SpringerLink / ScienceDirect / JSTOR Harvard Business Review (HBR) · Articles on AI in strategy, operations, customer service, etc. o MIT Sloan Management Review · Section on Artificial Intelligence & Business Strategy o

Evaluation Scheme	Total Marks: 100

<table>
<tr><td>Mid Semester Marks</td><td>20 marks</td></tr>
<tr><td>End Semester Marks</td><td>40 marks</td></tr>
<tr><td>Continuous Evaluation 40 marks</td><td>
<table>
<tr><td>Class Participation</td><td>10 marks</td></tr>
<tr><td>Quiz</td><td>5 marks</td></tr>
<tr><td>Skill Enhancement activities/ Case Study/ Research Paper</td><td>15 marks</td></tr>
<tr><td>Presentation</td><td>10 marks</td></tr>
</table>
</td></tr>
<tr><td>Course Outcomes</td><td>Co 1. Analyze Big Data, understanding its core characteristics and the infrastructure required for its management. They will also develop skills in extracting actionable insights that can inform and transform organizational strategies. Co 2. Comprehend in-depth knowledge of key AI technologies and explore these technologies' roles in driving business innovation and operational efficiency.
Co 3. Apply AI solutions to core business functions, such as enhancing algorithmic trading in finance, improving customer engagement through CRM systems, and optimizing HR processes with AI-driven tools.
Co 4. Evaluate and Mitigate ethical risks associated with AI use in business, ensuring practices are fair, transparent, and responsible. They will also address the legal and societal impacts of AI, fostering responsible leadership in technology deployment.</td></tr>
</table>

COURSE CODE BBA702	**COURSE NAME** Entrepreneurial Leadership	**SEMESTER** VII

Teaching Scheme (Hours)				**Teaching Credit**			
Lecture	**Practical**	**Tutorial**	**Total Hours**	**Lecture**	**Practical**	**Tutorial**	**Total Credit**
45	0	15	60	3	0	1	04

Course Pre-requisites	Basic knowledge of Management Principles and Organizational Behavior
Course Category	Core
Course focus	Enhancing leadership capabilities in entrepreneurial settings; developing adaptive and innovation-driven leadership strategies
Rationale	With rapid innovation and disruption across industries, leaders must adopt entrepreneurial mindsets to manage uncertainty and drive growth.
Course Revision/ Approval Date:	

Course Objectives **(As per Blooms' Taxonomy)**	Co1.Define core concepts of entrepreneurial leadership, innovation, and startup ecosystems. Co2.Understand different leadership styles and their relevance in dynamic and uncertain environments. Co3.Design a basic entrepreneurial leadership framework suitable for startups and growing ventures. Co4.Evaluate leadership challenges and ethical dilemmas faced by entrepreneurs in various industries. Co5.Analyze real-world entrepreneurial cases andleadership responses to failure, growth, and disruption.

Course Content	**Weightage**	**Contact hours**
Unit 1: Foundations of Entrepreneurial Leadership 1. Introduction to Leadership and Entrepreneurship 2. Definitions and Concepts of Leadership 3. Social, Managerial and Entrepreneurial Leadership 4. Theories and Models of Leadership 5. Trait Theory, Behavioral Theories, Contingency Theories, Transformational and Transactional Leadership	**25**	
UNIT 2: Leading with the Entrepreneurial Mindset 1. Creativity and Innovation in Entrepreneurship 2. Techniques for Fostering Creativity. 3. Overview of Innovation Management and role of Founders 4. Building Culture of innovation and entrepreneurial mindset 5. Leading through Innovation: Venture strategies and role of the leader. Process and Resources 6. The virtual work and organization; Leadership and the future of work in the venture leadership context.	**25**	
UNIT 3: Leadership Challenges and Strategies in Entrepreneurial Context 1. Leadership Challenges in Entrepreneurial Venture Development 2. Case Studies of Prominent Entrepreneurial Leaders 3. Analysis of elements of leadership desirable in different stages of venture creation and	**25**	

development 4. Designing organsational structure and managing people performance 5. Building teams; Managing Growth, Change, Conflicts and Transition		
UNIT 4: Ethical and Sustainable Entrepreneurship 1. Ethics And Social Responsibility In Entrepreneurship 2. Ethical Decision-Making Frameworks 3. Building the Right Culture and Values: Role of leader 4. Corporate Social Responsibility (CSR) 5. Sustainable Business Practices and managing change 6. Leadership and shaping Sustainability In Business Models	**25**	

Learning Resources	
1.	**Textbook:** Robbins, S. P., & Judge, T. A.,Essentials of Organizational Behavior, Pearson Northouse, P. G.Leadership: Theory and Practice, Sage Publications
2.	**Reference Books:** Christensen, C. M., Raynor, M. E., Dyer, J., & Gregersen, H., Disruptive Innovation: The Christensen Collection Ries, E.The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses, Crown Currency
3.	**Journals & Periodicals:** Vugt, M. van, & Ronay, R.,The Evolutionary Psychology of Leadership: Theory, Review, and Roadmap., Journal: Organizational Psychology Review, 4(1), 74–95 Alexander Fries, Nadine Kammerlander, Max Leitterstorf, Leadership Styles and Leadership Behaviors in Family Firms: A Systematic Literature Review, Journal: Journal of Family Business Strategy, Volume 12, Issue 1 Christensen, C. M., How Will You Measure Your Life? – Harvard Business Review article
4.	**Other Electronic Resources:** Harvard Business Review (HBR) – Entrepreneurial Leadership Section MIT Sloan Management Review,

Evaluation Scheme	Total Marks: 100		
Mid Semester Marks	20 marks		
End Semester Marks	40 marks		
Continuous Evaluation 40 marks			
		Class Participation	10 marks
		Quiz	5 marks
		Skill Enhancement activities/ Case Study/ Research Paper	15 marks
		Presentation	10 marks

Course Outcomes	Co 1. Understand and apply leadership theories and principles in an entrepreneurial context. Co 2. Develop further the entrepreneurial mindset and to recognize opportunities for innovation and value creation. Co 3. Formulate entrepreneurial vision and engage, motivate and lead stakeholders for implementing effective strategies for leading and managing

	entrepreneurial ventures. Co 4. Analyze and inculcate the ethical and social responsibilities of entrepreneurial leaders.

COURSE CODE BBA705			COURSE NAME Digital Transformation of Business			SEMESTER VII	
Teaching Scheme (Hours)			**Teaching Credit**				
Lecture	**Practical**	**Tutorial**	**Total Hours**	**Lecture**	**Practical**	**Tutorial**	**Total Credit**
60	0	0	60	3		1	4

Course Pre-requisites	Basic Information about Management
Course Category	DSE
Course focus	Skills
Rationale	Digital transformation puts technology at the core of business strategy. This approach can reduce operating expenses and inefficiency. It could even change the course of your business. With a unified model across business and technology, it's easier to achieve future ambitions.
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives	1.To Apply technology-related issues 2.To Understand of the reasons and directions digital business initiatives 3.To Learn basic knowledge and skills to recognize the contributions of technology to business needs situations/scenarios. 4.To Decide techniques ability to communicate and co-operate with technology managers and specialists. 5.To prepare students to discuss technology-related issues with both professionals and business.

Course Content (Theory)	**Weightage**	**Contact hours**
Unit 1 Digital Strategy Understand the characteristics of digital innovation Distinguish the nature of digital innovation vs. traditional/conventional innovation. introduction of Technology Management and Innovation. High level introduction of Digital Transformation. “Homo informaticus”, What has changed in the last decade?	20%	**9**
Unit 2: Managing IT Trends & Emerging Technologies We will present the future of Technology evolution, learn how to get advantage of Cloud, Big Data, Internet of Things and the new technological developments, how organizations can effectively and efficiently anticipate, assess, introduce, and leverage them. What is Big Data, how can we use it in our everyday life? What is the big buzz around cloud? What is it with simple words? Are there any real risks? What exactly is the Internet of Things (Apply concept on business situation)	20%	**9**
Unit 3: 3:Digital disruption and strategies for a digital transformation. Understand the underlying patterns of successful digital disruptors. Learn how disruptive technologies such as Artificial Intelligence can transform the business landscape. Understand the underlying patterns of successful digital disruptors. Learn how disruptive technologies such as Artificial Intelligence can transform the business landscape.	20%	**9**
Unit 4: Future of Technology Innovation What will influence our future in the following five years? What are those inventions that will change the world within five or ten years from now; similar to what has changed it during the last 10 years	20%	**9**

Unit 5 Best Practices for Digital Transformation: Business Case studies McKinsey's five keys to success:What are the best practices as identified by McKinsey research for instituting successful digital transformation? What are the difficulties in following these prescriptions? What does a leader of digital transformation have to do to optimize for success? What is the role in equipping and deploying new technologies across a business in creating a successful transformation? How do managers need to transform communication channels? How can transforming organizational design aid digital transformation?	20%	**9**

Instructional Method and Pedagogy: (Max. 100 words)
Discussion on concepts and issues in projects in an organization, case discussion , Projects/ Assignments/ Quizzes/ Class participation.

Course Objectives:	**Bloom's Taxonomy** **Domain**
After successful completion of the above course, students will be able to: CO1: Apply technology-related issues CO2: Understand of the reasons and directions digital business initiatives CO3: Learn basic knowledge and skills to recognize the contributions of technology to business needs situations/scenarios. CO4: Decision techniques ability to communicate and co-operate with technology managers and specialists. CO5: To prepare students Enabling students to discuss technology-related issues with both professionals and business.	CO1: Apply CO2: Understand CO3: Learn CO4: Decisions CO5: Prepare

Learning Resources				
1.	Reference Books: 1.Galliers, R.D., Leidner, D.E. (Eds): Strategic Information Management: Challenges and Strategies in Managing Information Systems. Fourth Edition. Routledge, New York, 2009. 2.Parker, G.P.; Alstyne, Van, M.W; Choudary, S.P. (2016): Platform Revolution. Norton & Company, New York London.			
2.	Journals, Periodicals, Reference 2. Financial Express, 2. Economics Times, 3. Business Standard			
3.	Other Electronic Resources: https:/r transformation#syllabus			
Evaluation Scheme	**Total Marks**			
Theory: Mid semester Marks	20 marks			
Theory: End Semester Marks	40 marks			
Theory: Continuous Evaluation **Component Marks**		Attendance	05 marks	

		MCQs	10 marks	
		Open Book Assignment	15 marks	

		Article Review	10 marks	
		Total	**40 Marks**	

Mapping of POs & COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	0	0	0	0	0	0	0
CO2	3	2	2	2	2	0	0	0
CO3	3	0	2	3	3	0	0	0
CO4	0	0	3	1	3	0	3	0
CO5	0	1	0	3	0	0	0	1

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE	COURSE NAME	SEMESTER
BBABA701	Big Data Analytics	VII

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Practical	Tutorial	Total Hours	Lecture	Practical	Tutorial	Total Credit
60	-	-	60	4	-	-	4

Course Prerequisites	Fundamental knowledge of information technology in general and DBMS, data analytics in specific along with understanding of business operations.
Course Category	Elective – Business Analytics
Course focus	Big Data Analysis Skills
Rationale	The subject introduces students to the fundamentals of Big Data Analytics. In the digital era, where the data is taking various forms, with huge volume, velocity, and variety – it is imperative to understand the challenges and opportunities posed by it. Future technology professionals need to understand the Big Data Technology ecosystem, to capitalize the enormous amount of data generated through various channels. The focus is on understanding data analytics concepts, tools, and their real-world application in business decision-making.
Course Revision/ Approval Date:	
Course Objectives (As per Blooms' Taxonomy)	To define the concept of Big Data and Big Data Analytics with its importance in Big Data world. To understand and learn the underlying technology of Big Data. To examine and evaluate the Big Data tools for Data storing, processing and analysis. To design and process the non-relational data for data analysis. To analyze large datasets and apply the concepts of Big Data Analytics in real world business scenario and strategies in various business operations.

Course Content	Weightage	Contact hours
Unit 1: Introduction to Big Data & Big Data Analytics Introduction & Concept of Big Data, History of Big Data, Characteristics of Big Data (The Five V's), Differences between traditional data and big data, Types of Big Data (Structured, Un-structured & Semi-Structured), Challenges of Big Data, Importance of data-driven decision-making, Big Data in the business ecosystem, What is Analytics?, Types of Analytics - Descriptive Analytics, Diagnostic Analytics, Predictive Analytics, Prescriptive Analytics, Operationalizing Big Data Analytics, Tools and Techniques of Big Data Analytics, Benefits of using Big Data Analytics, Examples of Big Data-Financial, Web, Healthcare, Internet of Things, Environment, Logistics & Transportation, Industry, Retail, Big Data Applications, Careers	**25%**	**15**
Unit 2: Big Data Technology - Hadoop Framework Introduction & Concept of Hadoop, History of Hadoop, The Hadoop Ecosystem, Hadoop architecture and Components (HDFS, MapReduce, YARN etc.), How Hadoop works? Features of Hadoop, Storing Data with HDFS, Design of HDFS, HDFS Concepts, Hadoop -RDBMS Versus Hadoop -Distributed Computing Challenges, Advantages & Disadvantages of	**25%**	**15**

Hadoop, Challenges of Hadoop, Use cases for Hadoop, Overview of Hadoop Tools.		
Unit 3: Big Data Tools HDFS-Overview, Concept of HBase, RDBMS v/s HBase, Comparison with Traditional Database, Concept of Hive & Pig – Querying Big Data, Spark – In-Memory Processing, data analysis with spark, ZooKeeper, HiveQL, 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 - Querying Data, Sorting & Aggregating, Map Reduce,Understanding Queries, Mining Big Data with Hive & HBase., HBase uses Zookeeper and how to Build Applications with Zookeeper.	**20%**	**10**
Unit 4: No-SQL and Big Data Introduction to No-SQL, No-SQL and Big Data, NoSQL databases in Big Data Ecosystem, Comparison of RDBMS (SQL) and NoSQL,	**20%**	**10**
advantages/disadvantages of NoSQL, Use cases of NoSQL Databases, Introduction to MongoDB & Cassandra		
Unit 5: **Case Studies and Applications of Big Data Analytics** Case Studies of Organizations using Big Data Analytics Big Data Applications: Business Specification Examples of Big Data- Financial, Web, Healthcare, Internet of Things, Environment, Logistics & Transportation, Industry, Retail, Big Data Security and Privacy.	**10%**	**10**

Course Outcomes:	**Blooms' Taxonomy Domain**
After successful completion of the above course, students will be able to:	
CO1: **Define & recall** the concepts of Big Data and Big Data Analytics.	**Remember**
CO2: **Understand** the key issues in big data management and its associated applications in intelligent business working of storing and processing of data through Hadoop technology/framework	**Understand**
CO3: **Apply** an understanding of different types of Big Data tools for storing, processing/data analytics.	**Apply**
CO4: **Analyze** and achieve adequate perspectives of big data analytics in various business applications.	**Analyze**
CO5: **Evaluate** the application of non-relational database and work on NoSQL environment (MongoDB and Cassandra)	**Evaluate**

Learning Resources	
1.	**Textbook:** Analytics in a Big Data World: The Essential Guide to Data Science and its Applications, Bart Baesens, Wiley, 2014 "Big Data and Analytics", Seema Acharya and Subhashini Chellappan, Wiley India

	Pvt. Ltd., 2016.
2.	**Reference Books:** “Hadoop: The Definitive Guide”, Tom White, O’Reilly, 4th Edition, 2015
	Hadoop for Dummies, Xyz Dirk Deroos et al., Dreamtech Press, 2014. Hadoop in Action, Chuck Lam, December, 2010
3.	**Journals & Periodicals: -**
4.	**Other Electronic Resources:** https://cloud.google.com/learn/what-is-big-data https://www.ibm.com/think/topics/big-data-analytics https://people.cs.kuleuven.be/~joost.vennekens/DN/bigdata.pdf http://www.diag.uniroma1.it//~rosati/dmds-1516/big-data-intro.pdf

Evaluation Scheme	**Total Marks: 100**
Mid Semester Marks	20 marks
End Semester Marks	40 marks
Continuous Evaluation 40 marks	Class Participation 10 marks Quiz 5 marks Case Study/ Research Paper 15 marks Presentation on Current Trends 10 marks

Mapping of POs & COs:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	1	2	2	2	3	2	1	2
CO2	2	2	2	2	3	3	2	2
CO3	2	3	3	3	3	3	1	3
CO4	1	2	3	2	3	2	1	2
CO5	2	3	2	3	3	3	2	3
Avg.	1.6	2.4	2.4	2.4	3	2.6	1.4	2.4

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA706			COURSE NAME Data Visualization Tools – Tableau			SEMESTER VII	
Teaching Scheme (Hours)			**Teaching Credit**				
Lecture	**Practical**	**Tutorial**	**Total Hours**	**Lecture**	**Practical**	**Tutorial**	**Total Credit**
60	0	0	60	3	0	1	4

Course Pre-requisites	**Basic knowledge of Business**
Course Category	Basic Core Courses
Course focus	Employability/ Analytical Skills/ Entrepreneurship
Rationale	This subject is designed to equip students with essential skills in Tableau, enabling them to analyze data effectively, create meaningful visualizations, and generate actionable insights for decision-making in diverse professional contexts.
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)

Course Objectives (As per Blooms' Taxonomy)	1.Understand the basic functionalities of Tableau and learn how to connect to different data sources such as excel files, text files, and Microsoft Analysis Services. 2.Develop skills in creating and removing hierarchies, using parameters, grouping data, and applying sorting techniques in Tableau. 3.Explore a wide range of charts and visualizations available in Tableau, including area, bar, pie, scatter, and heatmaps, among others. 4.Gain proficiency in creating advanced reports in Tableau, such as dual-axis reports, blended axis reports, and adding reference lines and distributions. 5.Learn to utilize calculations and filters in Tableau, including calculated fields, ranking, top and bottom filters, context filters, and data source filters.

Course Content (Theory)	**Weightage**	**Contact hours**
Unit 1 Learn Tableau Basic Reports Connecting to excel files , Connecting to text files Connecting to Microsoft Analysis services , Creating and removing hierarchies	**20%**	**9**
Unit: 2 Tableaus Basic Reports Parameters, Grouping Examples – 1,Grouping Examples – 2 Combined sets ,Creating a first report Data Labels ,Create Folders ,Sorting Data	**20%**	**9**
Unit 3 Tableaus Charts Area, Bar , Box, Bubble, Bump, Bullet, Circle, Gantt, Line, Lollipop, Line, Pareto, Pie, Scatter, Stacked, Tree, World Cloud, Waterfall. Filled, Crosstab, Combines, Motion, Heatmap	**20%**	**9**
Unit 4 Tableaus Advanced Reports Dual Axis Reports Blended Axis Individual Axis ,Add reference Lines , Reference Distribution Basic Map ,Mapbox maps as background map	**20%**	**9**
Unit:5 Tableaus Calculations & Filters Calculated Fields Basic Approach to calculate rank Filter's introduction Top and Bottom filters	**20%**	**9**

Context filter Slicing Filters Data Sources Filters Extract Filters		

Instructional Method and Pedagogy: (Max. 100 words)

This course will employ a combination of lectures, hands-on exercises, and guided practice sessions. Instructors will provide step-by-step demonstrations of connecting Tableau to different data sources, creating and removing hierarchies, and utilizing various features like parameters, grouping, and data labels. Students will actively engage in practical exercises to reinforce their understanding and gain proficiency in creating basic reports, visualizations, and advanced reports.

Course Objectives:	**Blooms' Taxonomy Domain**
After successful completion of the above course, students will be able to: **CO1**: Recall and describe the process of connecting to various data sources in Tableau, including excel files, text files, and Microsoft Analysis Services. (Remembering) **CO2:** Apply Tableau features like parameters, grouping, and sorting to organize and analyze data effectively. (Applying) **CO3**: Differentiate and select appropriate charts and visualizations in Tableau to represent different types of data accurately. (Analyzing) **CO4:** Develop advanced reports using Tableau, incorporating dual-axis charts, blended axis reports, and reference lines for enhanced visual representation. (Creating) **CO5**: Utilize calculations and filters in Tableau to perform data manipulations, rankings, and filtering techniques for targeted analysis and data exploration. (Applying)	CO1: Remembering CO2: Applying CO3: Analyzing CO4: Creating CO5: Applying

Learning Resources	
1.	Text Book: Visual Analytics with Tableau Book by Alexander Loth
2.	Journals, Periodicals, Reference Reference Books: 1. Tableau Your Data! Fast and Easy Visual Analysis with Tableau Software Book by Daniel G. Murray
3.	1. Other Electronic Resources:

Evaluation Scheme	**Total Marks**
Theory: Mid semester Marks	20 marks
Theory: End Semester Marks	40 marks

Theory: Continuous Evaluation Component Marks	Attendance 05 marks MCQs 10 marks Open Book Assignment 15 marks Article Review 10 marks **Total 40 Marks**

Mapping of POs & COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	0	0	0	0	0	0	0
CO2	0	3	0	0	0	0	0	0
CO3	0	0	3	0	0	0	0	0
CO4	0	0	0	3	0	0	0	0
CO5	0	3	0	0	0	0	0	0

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BBA801	COURSE NAME PROGRAMMING WITH C/C++	SEMESTER VIII

Teaching Scheme (Hours)				Teaching Credit			
Lecture	**Practical**	**Tutorial**	**Total Hours**	**Lecture**	**Practical**	**Tutorial**	**Total Credit**
45	0	15	60	3	0	1	4

Course Pre-requisites	Basic Information about Information Terminology
Course Category	Business Analytics
Course focus	Skills
Rationale	By learning C, Students can be able to understand and visualize the inner workings of computer systems. This can include aspects like allocation and memory management along with their architecture and the overall concepts that drive programming.
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives	1.To Apply fundamental knowledge of computer hardware and number systems. 2.To create employable as ability to write, compile and debug programs in C language 3. To learn basic terminology used in computer programming. 4. To decision the dynamics of memory by the use of pointers. 5.To prepare decision structures, loops and functions.

Course Content (Theory)	Weightage	Contact hours
Unit 1: Introduction to Computers: Computer Systems, Computing Environments, Computer Languages, Creating and running programs, Program Development. Introduction to the C Language: Background, C Programs, Identifiers, Types, Variables, Constants, Input / Output, Operators, Expressions, Precedence and Associativity, Expression Evaluation, Type conversions, Statements- Selection Statements(making decisions) – if and switch statements, Repetition statements (loops)-while, for, do- while statements, Loop examples, other statements related to looping – break, continue,Simple C Program examples.	20%	**9**
Unit 2: Functions-Designing Structured Programs, Functions, user defined functions, inter function communication,Standard functions, Scope, Storage classes-auto, register, static, extern, scope rules, type qualifiers, recursion- recursive functions, Limitations of recursion, example C programs, Preprocessor commands. Arrays – Concepts,using arraysin C,interfunction communication,array applications, two – dimensional arrays, multidimensional arrays, C program examples.	20%	**9**
Unit 3: Pointers – Introduction (Basic Concepts), Pointers for inter function communication, pointers to pointers, compatibility, Pointer Applications-Arrays and Pointers, Pointer Arithmetic and arrays, Passing an array to a function, memory allocation functions, array of pointers, programming applications, pointers to void, pointers to functions. Strings – Concepts, C Strings, String Input / Output functions, arrays of strings, string manipulation functions, string / data conversion, C program examples.	20%	**9**
Unit 4: Function: Function definition and function prototype. Function call by value and call by reference. Pointer to a function,	20%	**9**
Unit 5 : Bubble sort, selection sort,linder search,and binary search. Scope rules storage classes- Bit wise operations Data Files: Formatted, Unformatted and text files , Command line	20%	**9**

	arguments		

Instructional Method and Pedagogy: (Max. 100 words)
Projects/ Assignments/ Quizzes/ Class participation, Various Practicals

Course Outcomes:	**Bloom's Taxonomy Domain**
After successful completion of the above course, students will be able to: CO1: Apply fundamental knowledge of computer hardware and number systems CO2: Employable as ability to write, compile and debug programs in C language CO3: To learn basic terminology used in computer programming. CO4: To decision the dynamics of memory by the use of pointers. CO5: To prepare decision structures, loops and functions.	CO1: Apply CO2: Employable CO3: Learn CO4: Decisions CO5: Prepare

Learning Resources	
1.	Reference Books: 1. C programming By Ritchie & Kernighan 2. Byron S Gottfried, "Programming with C", Schaum"s Outlines, Second Edition, Tata McGraw-Hill, 2006. 3. Dromey R.G., "How to Solve it by Computer", Pearson Education, Fourth Reprint,2007. 4. Kernighan,B.W and Ritchie,D.M, "The C Programming language", Second Edition,PearsonEducation, 2006. 5. C& Data structures – P. Padmanabham, Third Edition, B.S. Publications.
2.	Journals, Periodicals, Reference 1. Journal of Computer and System Sciences 2. International Journal of Computers and Applications 3. Indian Journal of computer science and engineering,
3.	Other Electronic Resources:

Evaluation Scheme	**Total Marks**
Theory: Mid semester Marks	20 marks
Theory: End Semester Marks	40 marks
Theory: Continuous Evaluation Component Marks	Attendance 05 marks MCQs 10 marks Open Book Assignment 15 marks Article Review 10 marks **Total 40 Marks**

Mapping of POs & COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	0	0	0	0	0	0	0
CO2	3	0	2	2	2	0	0	0
CO3	0	0	2	3	3	0	0	0
CO4	0	0	3	2	3	0	3	0
CO5	0	1	0	0	0	0	0	1

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None

COURSE CODE BA802	COURSE NAME Data Visualisation Tools - Google Data Studio	SEMESTER VIII

Teaching Scheme (Hours)				Teaching Credit			
Lecture	Practical	Tutorial	Total Hours	Lecture	Practical	Tutorial	Total Credit
45	0	15	60	3	0	1	4

Course Pre-requisites	Basic Information about Management
Course Category	Core
Course focus	Skills
Rationale	Google Data Studio allows users to create custom reports with a wide range of designs, styles, graphs, and formatting. If you're new to Data Studio, then there are plenty of pre-templated reports to choose from. Otherwise, you can start from scratch and create one entirely unique to your reporting style.
Course Revision/ Approval Date:	23rd February 2022 (6th BoS)
Course Objectives	To apply an Google Studio and execute it To understand Design application with database connectivity for data analysis To Learn Visualize and summarize the data To analyse Design application with database connectivity for data analysis To prepare students to Install, load and deploy the required packages, and build new packages for sharing and reusability

Course Content (Theory)	Weightage	Contact hours
Unit 1 : Introductionto Data Studio • Data Studio overview • How Data Studio works • Access controls	20%	**9**
Unit 2: Navigate Data Studio • Data Studio Home page • Data source overview	20%	**9**
• Report overview • Report edit mode overview		
Unit 3: Build your first report • Connect Data • Create a new report and add charts • Add and configure report controls • Share reports with others	20%	**9**
Unit 4: Format and Design Reports • data visualization basics • Create and use report templates	20%	**9**
Unit 5 Putting It All Together • Resources and Strategy Refresh • Dissecting our Completed Dashboard	20%	**9**

	• Putting Everything Together to Deliver a Complete Analysis		

Instructional Method and Pedagogy: (Max. 100 words)
Use of ICT tools in conjunction with traditional class room teaching methods Interactive sessions
Class discussions

Course Objectives:	**Bloom's Taxonomy** **Domain**
After successful completion of the above course, students will be able to: CO1: Apply an Google Studio and execute it CO2: Understand Design application with database connectivity for data analysis CO3: Learn Visualize and summarize the data CO4: Analyse Design application with database connectivity for data analysis CO5: Prepare students to Install, load and deploy the required packages, and build new packages for sharing and reusability	CO1: Apply CO2: Understand CO3: Learn CO4: Analyse CO5: Prepare

Learning Resources	
1.	Reference Books: Google Data Studio for Beginners: Start Making Your Data Actionable by Grant Kemp, Gerry WhiteDecember 2020 **Hands On With Google Data Studio: A Data Citizen's Survival Guide by Wiley**
2.	Journals, Periodicals, Reference 6. Financial Express, 2. Economics Times, 3. Business Standard
3.	Other Electronic Resources: hhttps:/l
Evaluation Scheme	**Total Marks**
Theory: Mid semester Marks	20 marks

	Theory: End Semester Marks		40 marks		
	Theory: Continuous Evaluation Component Marks		Attendance	05 marks	
			MCQs	10 marks	
			Open Book Assignment	15 marks	
			Article Review	10 marks	

		Total	**40 Marks**	

Mapping of POs & COs

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	0	3	3	3	3	0	0	0
CO2	3	1	2	2	2	0	0	0
CO3	3	0	2	3	3	0	0	0
CO4	0	3	3	3	3	0	3	0
CO5	0	1	0	3	0	0	0	1

1: Slight (low); 2: Moderate (Medium); 3: Substantial (High); 0 None