



Accredited with NAAC A+ Grade

An Autonomous Institute Affiliated to RTM Nagpur University, Nagpur Scheme of Instructions for Second Year Master of Business Administration

Semester-IV(w.e.f.: AY2025-26)

Sr.	Sr. CourseCat		urse Code Course Title	L	T		Total	Credits	Exam Scheme				
No	egory	Course Code	Course Title	L	1	P	Contact Hrs		CT-	CT- 2	CA	ESE	TOTAL
1	MCC	MBA32401	MOOCs2		*			3	-				100
2	PROJ	MMB32402	(Project- Phase II) Project defense through Presentation (Assessment by External Examiner)	•	-	12	12	6			50	50	100
			Viva-Voce (Assessment by External Examiner)	-	-			-	-	: <b>-</b> :	50	50	
4*	PEC	MBA32403 A- MBA32408A	Specialization –II-A	4	-	-	4	4	15	15	10	60	100
5#	PEC	MBA32403 B- MBA32408B	Specialization –II-B	4	-	-	4	4	15	15	10	60	100
			Total	8	-	12	20	17	30	30	70	220	450

TA/CA-Teacher Assessment/ Continuous Assessment

ESE- End Semester Examination (For Laboratory: End Semester Performance)

HOD HOD MBA POOL d-Patil

Coll Tech.

PAcademics

Dr. Premanand Naktode

Principal

TGPCET, Nagpur





Wardha Road, Nagpur-441 108
NAAC Accredited (A+ Grade)

_		3.5 ( 0.7)	NAAC Accredited (A+ Grade	ej			
Pr	ogram	: Master of Busin	ess Administration		1		
Ser	nester	<b>Course Code</b>	Name of Course	L	T	P	Credits
	IV	MBA32403(A)	Strategic HRM	40	-	-	4
Pre	-Requi	sites: Human Resour	ce Management, Organizational Be	havior			
Co		bjectives:					
1.			xplain the factors affecting HRP and				
2.			etermine the process of demand and	l supply for	ecasting	g while	doing
		resource planning.					
3.			evise the manpower plan for an organical series				
4.			rmulate Recruitment and Selection	•			
5.	Studen	its should be able to or	utline the Recent Trends in Manpov	ver Develop	oment a	ind Plai	nnıng
			Course Contents				
U	nit I	of HRM, Significance	ng & Definition of HRM, Evolution e of HRM, Objectives of HRM , Str	rategic HRI	M-conc	ept	
Uı	nit II		uation: Process of Job Analysis, Jo Scheduling, Techniques for Designalization.				
Unit III Talent Acquisition: Human Resource Planning-Objectives, Importance & Pro Recruitment – Constraint and Challenges, Sources and Methods of Recruitment, & Selection							
Un	nit IV		Relations: Managing Employee g, Reductions in force, Turnover, En				_
Uı	nit V	Competency-based Jo	on HR Functions: Strategic HR Pob Analysis, Linkage between Busince Management, Strategy and Con	iness Strate	gy and		
Tex	xt Book	S					
	T.1	Strategic Management	of Human Resources: by Jeffrey A	. Mello, Ce	engage I	Learnir	ng
		Gary Dessler&BijuVark (I) Pvt. Ltd.	key. (2009). Human Resource Manage	ement, (11th	Edition	) Dorlin	gKindessley
Ref	ference	Books					
R.1 V. S. P. Rao. (2010). Human Resource Management. (3rd Edition). Excel Books.							
	R.2 SubbaRao. (2013). Personnel and HRM. (Forth Revised Edition). Himalaya Publishing House Pvt. Ltd.						
	R.3 C.B.Mamoria, S.V.Gankar. (2011). Human Resource Management. (7th Edition). Himalaya Publication.						/a
R.4   Strategic Human Resource Management: by Rajesh Vishwanathan, Himalaya Publishing House						House	
R.5 Strategic Human Resource Management - A General Management Approach: by Charles R. Green Pearson						R. Greer,	
Use	Useful Links						
	1 https://nptel.ac.in/courses/110/105/110105154/						
			I			1	

	Course Outcomes	PO/PSO	CL	Class Sessions
MBA32403(A).1	Apply the concepts of Strategic HRM	PO1, PO2, PO3,PO4,PO5,PSO1,PSO2	3	8

MBA32403(A).2	Distinguish between various methods & processes related to HRM.	PO1, PO2, PO3,PO4,PO5,PSO1,PSO2	5	8
MBA32403(A).3	Evaluate various HR strategies.	PO1, PO2, PO3,PO4,PO5,PSO2	5	8
MBA32403(A).4	Develop employee relations, separation and retention management	PO1, PO2, PO3,PO4,PO5,PSO1,PSO2	3	8
MBA32403(A).5	Establish the strategic perspective on different HR functions	PO1, PO2, PO3,PO4,PO5,PSO1,PSO2	4	8

PO CO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	2	3	3	3	3
CO2	3	3	2	3	3	3	3
CO3	3	3	2	3	3	-	3
CO4	3	3	2	3	2	2	3
CO5	3	3	2	2	1	2	2
Avg	3	3	2	3	2	3	3

## Assessment Pattern (with revised Bloom's Taxonomy)

<b>Cognitive Level</b>	CT 1	CT 2	TA	ESE
Remember	-	-	-	10
Understand	-	-	-	10
Apply	5	5	3	13
Analyze	5	5	3	13
Evaluate	5	5	4	14
Create	-	-	-	-
TOTAL	15	15	10	60



Wardha Road, Nagpur-441 108
NAAC Accredited (A+ Grade)



<b>Program:</b>	Master	of Busines	s Administration
			•

Semester	<b>Course Code</b>	Name of Course		T	P	Credits
IV	MBA32403(A)	Strategic HRM	40	-	-	4

## **Summary of Revisions in the Contents**

Unit No.	Modifications Proposed	Source of collection of proposed content	Reason
1.	Strategic HRM-concept	AICTE Model Curriculum// Old RTMNU Syllabus, Pimpri chichwad College of Engg	Strengthen PO- 1, PO-2, PO-4, PO-5
2.	Job Analysis & Evaluation	AICTE Model Curriculum// New RTMNU Syllabus, RCOEM	Strengthen PO- 1, PO-2, PO-4, PO-5
3.	Talent Acquisition: Human Resource Planning	AICTE Model Curriculum// New RTMNU Syllabus, RSCOE	Strengthen PO- 1, PO-2, PO-4, PO-5
4.	Strategic Employee Relations	AICTE Model Curriculum// New RTMNU Syllabus, RCOEM	Strengthen PO-1,PO-2, PO-4
5.	Strategic Perspective on HR Functions	AICTE Model Curriculum// New RTMNU Syllabus, RCOEM	Strengthen PO- 1,PO-2



Wardha Road, Nagpur-441 108
NAAC Accredited (A+ Grade)



Program:	Master	of	Business	A	dministration
	.viubtci	VI.	TO CONTINUO	4	willians of actions

Semester	<b>Course Code</b>	Name of Course	L	T	P	Credits
IV	MBA32404(A)	Integrated Marketing Communication and Brand Management	40	-	-	4

Pre-Requisites: Organization Management, Marketing Management, Business Ethics

Course	Oł	oiecti	ves:
Course	V.	Jecu	I V CD.

- 1. Students will be able to Design the Integrated marketing communication Process for a company/product.
- 2. Students will be able to develop a creative message strategy for a product and execute it.
- 3. Students will be able to implement and evaluate a IMC campaign.
- 4. Students will be able to Identify & Establish Brand Positioning for a given product
- 5. At the end of the course the student manager shall be able to design/develop branding strategies for a product/company, brand marketing program and shall be able to evaluate a branding program.

#### **Course Contents**

# Unit I

**Introduction to Integrated Marketing Communication:** Concept, functional areas of marketing communications, direct marketing and other media, IMC planning process, role in branding, audience contacts, recent trends. The Role of IMC in the Marketing Process: Marketing strategy and analysis, target marketing process, developing the marketing planning program.

# Unit II

**Source, Message and Channel Factors:** Promotional planning through the persuasion matrix, source factors, message factors, channel factors, establishing objectives and budgeting for the promotional program. Creative Strategy: Planning and development, planning creative strategy, creative process, creative strategy development. Implementation and Evaluation: Appeals and execution styles, creative tactics, client evaluation and approval of creative work.

# Unit III

**Media Planning and Strategy:** Traditional vs Modern media: online and mobile advertising-social media for advertising and promotion, developing media plan, market analysis and target market identification, establishing media objectives, developing and implementing media strategies, evaluation and follow-up.

# Unit IV

**Brand Management & Brand Equity:** Meaning, Scope of Brand, Brand Management. Branding Challenges & opportunities. Strategic Brand Management – need & process. Identifying & Establishing Brand Positioning & Values-Brand Equity, customer based brand equity, brand positioning. Planning & implementing brand marketing program, Measuring & implementing brand performance

Unit V	<b>Retail Introduction:</b> Introduction to retail management, retail in India, theories of retail development, international retail, retail formats. Strategy & Planning: Understanding retail consumer, strategic retail, store site selection, franchising, understanding shoppers and shopping. Managing Retail: Private labels, category management, store operations and profitability. Retail marketing and branding, information systems, human interface, E retailing						
Text Boo	ks						
T.1	Principles of Advertising and IMC: by Duncan, Tom, McGraw Hill.						
T.2	Integrated Marketing Communications: by Pickton, D. and Broderick, A., Prentice Hall.						
T.3	Managing Retailing: by Sinha Uniyal, Oxford Publications						
Referenc	e Books						
R.1	Using advertising and promotion to build brands: by Blyth, J., Pearson.						
R.2	Advertising management: by Jethwaney, Oxford.						
R.3	Product and Brand Management, Tapan Panda, Oxford University Press; First edition, ISBN-13: 978-0199460496						
Useful Li	Useful Links						
1	https://nptel.ac.in/courses/110/101/110101131/						

	Course Outcomes	PO/PSO	CL	Class Sessions
MBA32404(A).1	<b>Apply</b> the concept of marketing communication.	PO1,PO2,PO4,PO5,PSO1,PSO2	3	8
MBA32404(A).2	<b>Explain</b> the role of IMC in marketing communication process.	PO1,PO2,PO4,PO5,PSO1,PSO2	4	8
MBA32404(A).3	Analyze the major variables in the communication system: the source, the message & the channel.	PO1,PO2,PO4,PO5,PSO1,PSO2	4	8
MBA32404(A).4	<b>Derive</b> theBrandPositioning product.for a given	PO1,PO2,PO4,PO5,PSO1,PSO2	4	8
MBA32404(A).5	Designthebrandingstrategiesforaproduct/company,brandmarketingprogram and shallbeabletoevaluateabrandingprogram.	PO1,PO2,PO4,PO5,PSO1,PSO2	6	8

PO	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
co <b>↓</b>							
CO1	3	3	2	3	3	3	3
CO2	3	3	2	3	3	3	3
CO3	2	3	2	3	3	1	3
CO4	2	3	2	3	2	2	3
CO5	2	3	2	2	1	2	2
Avg	2	3	2	3	2	2	3

#### **Assessment Pattern** (with revised Bloom's Taxonomy)

Cognitive Level	CT 1	CT 2	TA	ESE
Remember	_	_	_	-
Understand	_	_	_	10
Apply	5	5	3	13
Analyze	5	5	3	13
Evaluate	5	-	4	14
Create	_	5	_	10
TOTAL	15	15	10	60



# Tulsiramji Gaikwad-Patil College of Engineering and Technology

Wardha Road, Nagpur-441 108
NAAC Accredited (A+ Grade)



# **Program: Master of Business Administration**

Semester	Course Code	Name of Course	L	T	P	Credits
IV	MBA32404(A)	Integrated Marketing Communication and Brand Management	40	-	-	4

### **Summary of Revisions in the Contents**

Unit No.	<b>Modifications Proposed</b>	Source of collection of proposed content	Reason
	Media Planning and Strategy	Ramdeobaba college of	To create proper
3.		Engineering &	communication
3.		Management, Nagpur	channel with
			customers.
5.	Retail Marketing	P.E.S College of	To Strengthen
	_	Engineering, Karnataka	PO-1



Wardha Road, Nagpur-441 108
NAAC Accredited (A+ Grade)



7		NAAC Accredited (A+ Grade)						
Program: (M.B.A) Master of Business Administration								
Semester	Course Code	Name of Course	L	T	P	Credits		
IV	MBA32405 (A)	Insurance & Wealth Management	40	-	-	4		
Pre-Requisites: Finance, Insurance, Wealth Management								
Course C	Objectives:							
1. The s	tudent will be able to ide	entify role of banking in economic develop	ment o	f coun	try.			
		assess the impact of monetary policy and	d its in	strume	ents or	ı banking		
sector								
		alyze the health and risk of bank balance	sheet a	nd wil	l also	be able to		
	ise credit management p				tha n	magaga of		
	itization.	identify the NPAs and will also be able	e to ap	praise	me p	rocess or		
		stinguish the utility of various non banking	institu	tions l	ike ins	urance.		
	ng finance and credit rat		,			,		
		<b>Course Contents</b>						
Unit I	and non life), insurance life insurance, hazards	cept of insurance, history and its evolution ce contract, Insurance terminology, Risk as, general insurance, insurance market in Ince: General procedure and practice of	and insundia.	urance,	intro	duction to		
Unit II	documents and forms payment, lapses and calculation, policy cl clause). Claim settlen	, Calculations of Premiums, underwriting revival, assignment, nomination and surreaims, procedure and its calculation(inclunent & TPA	and it ender o iding a	s proce of polic pplicat	edure, cy, loa cion o	premium an and its f average		
Unit III	IRDA & its Functions: Role and Functions of IRDA in insurance business, rules and regulations framed by IRDA for carrying out insurance business, laws regarding insurance companies in India. Insurance Products: (Life and Non Life): Term Assurance plan, Whole life plan, Endowment plan, Money back plan, ULIP, Vehicle insurance, fire, marine and							
Unit IV	health insurance.  Wealth Management & the Economy: Financial Planning to Wealth Management, Economic Cycles and Indicators: Lag Indicators, Co-incident Indicators, Lead Indicators; Interest Rate Views, Currency Exchange Rate, The Deficits: Revenue Deficit and Fiscal Deficit, Current Account Deficit. Investment & Risk Management: Equity, Debt, Alternate assets: Gold & Real Estate. Role of each instrument, risk associated, return expectations							
Unit V	Allocation, Tactical Asset Allocation Ret	et Allocation: Risk Profiling, Why Asse Asset Allocation, Fixed Asset Allocation urns in Equity and Debt. Fixed Asset Asset Allocation, Asset Allocation Return	ı, Flexi Allocat	ble As	sset A th Ar	Ilocation, nual Re-		

Diversification in Perspective.

Text Boo	oks					
1	IC-38 Published by Insurance Institute of India					
2	Insurance and Risk Management by IMS Pro-School					
3	Intermediate Module: Wealth Management (NCFM modules)					
Reference	Reference Books					
1	Wealth Management: Pawan Jhabak, Himalaya Publishing House					
2	Wealth Management: Dun & Bradstreet, Mcgraw-Hill Publication					
3	Wealth Management: A Treatise & Guide for Wealth Managers and Wealth Management Executives, Prof. George S. Mentz, American Academy of Financial Management					
Useful L	Useful Links					
1	https://nptel.ac.in/courses/110/105/110105144/					

	Course Outcomes	РО	CL	Class Sessions
MBA32405(A).1	<b>Apply</b> the concept of insurance and its general procedure in practical sphere.	PO1, PO3, PO5	3	8
MBA32405(A).2	Analyze various insurance policies on the basis of financial needs and requirements.	PO2, PO4	4	8
MBA32405(A).3	Rating essential elements allied to life and non –life insurance.	PO1, PO3	5	8
MBA32405(A).4	CompareaboutWealthManagement & the Economy	PO1, PO3, PO5	5	8
MBA32405(A).5	<b>Built</b> risk profiling and asset allocation	PO2, PO4	6	8

PO → CO ↓	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	2	3	3	3	2	2	2
CO2	3	3	2	3	3	3	3
CO3	2	3	3	3	2	2	3
CO4	3	3	2	3	2	3	3
CO5	2	3	3	2	2	2	2
Avg	2	3	3	3	2	2	3

#### **Assessment Pattern**(with revised Bloom's Taxonomy)

<b>Knowledge Level</b>	CT 1	CT 2	TA	ESE
Remember	1	-	-	-
Understand	-	-	-	10
Apply	5	5	3	13
Analyze	5	5	3	13
Evaluate	5	2	4	11
Create	•	3		13
TOTAL	15	15	10	60



# Tulsiramji Gaikwad-Patil College of Engineering and Technology



Wardha Road, Nagpur-441 108
NAAC Accredited (A+ Grade)

Program: (M.B.A	) Master of Business A	Administration
-----------------	------------------------	----------------

Semester	Course Code	Name of Course		T	P	Credits
IV	MBA32405(A)	Insurance & Wealth Management	40	-	-	4

**Summary of Revisions in the Contents** Source of collection of Unit No. **Modifications Proposed** Reason proposed content Wealth & Symbiosis College, Nagpur Strengthening Management the PO2, PO5, Economy: Financial Planning to PSO<sub>1</sub> Wealth Management, Economic Cycles and Indicators: Lag Indicators, Co-incident Indicators, Indicators; Interest Lead Views, Currency Exchange Rate, 1. The Deficits: Revenue Deficit and Fiscal Deficit, Current Account Deficit. Investment & Risk Management: Equity, Debt. Alternate assets: Gold & Real Estate. Role of each instrument, risk associated, return expectations



Wardha Road, Nagpur-441 108
NAAC Accredited (A+ Grade)



	NAAC Accredited (A+ Grade)									
Pr	ogran	am: Master of Business Administration								
Se	mester	<b>Course Code</b>	Name of Course	L	T	P	Credits			
	IV	MBA32406(A)	Quality Toolkit for Managers	40	-	-	4			
Pr	e-Requ	isites: Operation	Management, Quantitative Techniques	L		I	.1			
		bjectives:								
1.			nalyze the dimensions of Quality and apply quality	ality sy	stems fo	r effect	ive quality			
	improv									
2.			elect appropriate statistical tools for quality ar		114					
3.			ecommend appropriate SPC tools to improve			1:4				
4.	improv		et bench marks for the organization and apply	1QM to	oois for (	quanty				
5.	The stu	ident will be able to a	pply productivity tools for improving efficien	cy in the	plant.					
			<b>Course Contents</b>							
	Unit I  Introduction to Quality Concepts: Dimensions of Quality, Cost of Quality, Quality philosophies, Quality systems, contribution of Quality gurus.  Quality Assurance and Control – Concepts of Quality Assurance, Objectives, Quality Manual, Specification and Design Control, Process control, inspection and testing, Quality assurance in Services									
Uı	Unit III  Statistical Process Control (SPC): 7 tools of quality, control charts for variable and attributes, control chart techniques, X bar, R bar correlation. Pareto diagrams, cause and effect diagrams scatter diagrams, run charts, histograms, and flow charts.									
Uı	Unit IV  Quality Improvement Techniques - Control Charts for Variables – Definitions, Variation Common vs. Special Causes, Process capability, Concept of six sigma - Introduction, advantages of six sigma, six sigma DMAIC process									
Unit V  Customer satisfaction – Customer Perception of Quality, Customer Complaints, Quality, Customer Retention, Employee Involvement – Motivation, Empowermer Recognition and Reward, Performance Appraisal, Benefits, Continuous Process In –Juran Trilogy, PDSA Cycle, 5S, Kaizen, Supplier Partnership – Partnering, source Supplier Selection, Supplier Rating, Relationship Development, Performance Mea						t, Teams, nprovement ing,				

Basic Concepts, Strategy

**Text Books** 

T.1	Total Quality Management, Text and Cases, By K. Shridhara Bhat, Himalaya Publishing House,
T.2	Quality Management, By Kanishka Bedi, Oxford
Т.3	Production and Operations Management, By K.Aswathappa and K. Shridhara Bhat, Himalaya Publidhing House,
Reference	ee Books
R.1	Operations Management, By B Mahadevan, Pearson Publication,
R.2	Total Quality Management (TQM) 5th edition, Basterfeild & Urdhwareshe, Pearson Education, ISBN-13: 978-9353066314
R.3	Total Quality Management, V. Vijayan & H. Ramakrishna, S. Chand Publishing, ISBN-13: 978-9384319557
Useful L	inks
1	https://nptel.ac.in/courses/110/101/110101131/

	Course Outcomes	PO/PSO	CL	Class Sessions
MBA32406(A).1	<b>Apply</b> various Quality parameters	PO1,PO2,PO4,PO5,PSO1,PSO2	3	8
MBA32406(A).2	Analyze various quality techniques	PO1,PO2,PO4,PO5,PSO1,PSO2	4	8
MBA32406(A).3	Evaluate TQM methods for quality management.	PO1,PO2,PO4,PO5,PSO1,PSO2	5	8
MBA32406(A).4	Explain Quality Improvement Techniques.	PO1,PO2,PO4,PO5,PSO1,PSO2	4	8
MBA32406(A).5	<b>Develop</b> quality tools benchmarking.	PO1,PO2,PO4,PO5,PSO1,PSO2	6	8

PO T	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2
CO1	3	3	3	3	2	3	3

CO2	3	3	2	3	3	3	3
CO <sub>2</sub>	2	3	2	2	2	-	3
	3	3	2	3	2	2	3
CO4	3	3	2	2	2	2	2
CO5							
Avg	3	3	2	3	2	2	3

#### **Assessment Pattern** (with revised Bloom's Taxonomy)

<b>Cognitive Level</b>	CT 1	CT 2	TA	ESE
Remember	_	_	_	_
Understand	_	_	_	10
Apply		-		10
	-		-	
Analyze	5	5	3	13
Evaluate	5	5	4	14
Create	5	5	3	13
TOTAL	15	15	10	60



# Tulsiramji Gaikwad-Patil College of Engineering and Technology



Wardha Road, Nagpur-441 108
NAAC Accredited (A+ Grade)

## **Program: Master of Business Administration**

Semester	<b>Course Code</b>	Name of Course		T	P	Credits
IV	MBA32406(A)	Quality Toolkit for Managers	40	-	_	4

#### **Summary of Revisions in the Contents Source of collection of** Unit No. **Modifications Proposed** Reason proposed content Quality Improvement Techniques Rajeshree Shahu Maharaj, To understand Pune the various 1. methods to improve Quality of the product. 2. Rajeshree Shahu Maharaj, To learn various Customer satisfaction Pune quality improve method to satisfy customer



Wardha Road, Nagpur-441 108
NAAC Accredited (A+ Grade)



7	7	NAAC Accredited (A+ Grade)						
Program: (M.B.A) Master of Business Administration								
Se	mester	ster Course Code Name of Course L T P				P	Credits	
	IV	MBA32407(A)	Internet Marketing	40	-	-	4	
Pr	e-Requi	sites: Information T	echnology					
Co	urse Ol	ojectives:						
1.	Studer	ts will be able to han	dle various approaches to internet mark	eting				
2.	Studen	its will be able to con	npare advantages and disadvantages of	approach	es to int	ernet ma	arketing	
3.	Studer	ts will be able to dev	elop skills to implement internet marke	ting unde	r approj	oriate sit	tuations	
4.	Studen	ts will be able to dete	ermine e- commerce and management s	ystem.				
5.	Studen	ts will be able to dete	ermine and demonstrate online promotic	on technic	ques.			
			<b>Course Contents</b>					
U	Introduction: What is internet marketing? Significance of internet marketing, benefits of internet to the marketer, how internet marketing differs from traditional marketing Marketplace, customers, online buyer behavior, competitors, suppliers, intermediaries  Websites: People behind websites- owners, venture capitalists, creative directors, account and project managers, programmers, graphic designers, copy writers, marketers Types of websites- web portals, B2B, B2C, C2C, B2E(Business to employee), social networking, informational, entertainment							
U	nit II	Social Media And Social Networking Sites:  An overview of social media and networking sites, The rise and dominance of social networking- Social media optimization, social media marketing Who is using social media and how? Social networking sites- types of audiences, generalist social networking, Niche market social networking, social bookmarking Blogging as a marketing strategy:Blogging basics- What is blogging? Types of blogs, who blogs, who reads them, how and why. Blogging as a marketing strategy- Benefits of blogging, pitfalls of blogging, the requirements for a successful marketing blog						
Uı	nit III	Web Based Video: Who is watching what, video as a social media tool, web based video as a marketing tool Wikis, RSS, Mash ups, virtual worlds and marketing Web and brand building - Brand - brand promise, brand personality, unique selling proposition, The web's place in brand building						
U	nit IV	E- Commerce Sites:sources of revenue - direct sales, indirect sales, paid memberships and Subscriptions, advertising Shopping on the social web- store layout, the shopping cart and check out process, intuitive						

Shopping on the social web- store layout, the shopping cart and check out process, intuitive

and personal content provision, Feedback and reviews

Unit V	Online Promotion Techniques: Search engine marketing, online PR, Online partnerships, interactive advertising, e-mail marketing, viral marketing						
Text Boo	Text Books						
1	Principles of Internet Marketing- new tools and methods for web developers byJason I. Miletsky, Course Technology, Cengage Learning, 2009						
1	Miletsky, Course Technology, Cengage Learning, 2009						
Referenc	Reference Books						
1	Internet marketing- strategy, implementation and Practice- David Chaffey, Fiona Ellis-Chadwick, Richard Meyer, Kevin Johnston, Pearson Education Limited, 2006						
2	The ultimate Web- Marketing Guide- Michael Miller, Pearson Education(QUE), 2011						
Useful Li	inks						
1	www.interdigitalmarketing.com/						

	Course Outcomes	РО	CL	Class Sessions
MBA32407(A).1	<b>Handle</b> various approaches to Internet Marketing	PO1, PO2	3	8
MBA32407(A).2	Compareadvantagesanddisadvantagesof approaches toInternet Marketing	PO3, PO5, PO4	5	8
MBA32407(A).3	<b>Develop</b> skills to implement Internet Marketing under appropriate situations	PO1, PO3, PO5	4	8
MBA32407(A).4	<b>Determine</b> E- Commerce and management system.	PO2, PO4	3	8
MBA32407(A).5	<b>Determine</b> and demonstrate online promotion techniques.	PO1, PO2, PO5	4	8

PO → CO ↓	PO1	PO2	PO3	PO4	PO5
CO1	2	2	3	2	2
CO2	3	3	2	2	2
CO3	3	3	2	3	3
CO4	2	3	3	2	2
CO5	3	2	3	2	2

## Assessment Pattern(with revised Bloom's Taxonomy)

Knowledge Level	CT 1	CT 2	TA	ESE
Remember	-	-	-	10
Understand	-	-	-	10
Apply	5	5	3	13

Analyze	5	5	3	13
Evaluate	5	5	4	14
Create	-	-	-	-
TOTAL	15	15	10	60



## Tulsiramji Gaikwad-Patil College of Engineering and Technology Wardha Road, Nagpur-441 108



NAAC Accredited (A+ Grade)

<b>Program:</b> (M.B.A) Master of Business Administration	Program:	(M.B.A)	) Master of	f Business A	Administration
---	----------	---------	-------------	--------------	----------------

Semester	<b>Course Code</b>	Name of Course	L	T	P	Credits
IV	MBA32407(A)	Internet Marketing	40	-	_	4

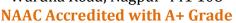
IV		MBA32407(A)	Internet	t Marketing	40	-	-	4
		Summar	y of Revisi	ons in the Co	ontents	5		
Unit No.		Modifications Pro	posed	Source of c				Reason
1.	rever paid Subs Shop layor out p	nue - direct sales, in memberships scriptions, advertising oping on the social v ut, the shopping cart process, intuitive and ent provision, Feedb	s and g veb- store and check d personal	AICTE Model (	Curricult	ım	Stre PO	engthen PO-4
2.	of a netw social book Blog Blog Type read Blog Bene blog	al networking sites audiences, generalist vorking, Niche al networking, kmarking aging as a marketing basics- What it is of blogs, who is them, how and what it is of blogging, pit ging, the requirement essful marketing blogging, blogging, blogging, the requirement is stated as a marketing blogging, and a marketing blogging, the requirement is stated as a marketing blogging as a marketing blogging, the requirement is stated as a marketing blogging, and a marketing blogging as a marketing blogging as a marketing blogging as a marketing blogging as a marketing and a marketing blogging as a marketing blogging and a marketing and a m	market social mg strategy: s blogging? blogs, who y. strategy- falls of nts for a	Sandip University	ity		Stre PO	engthen PO-3

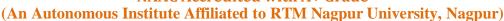
Program	n: Ma	aster of Busi	ness Administration		
Semester	·- IV	MBA32403(B)	Industrial Relations And Labor Legislat	ions	
Tea	nching S	Scheme		Examinati	on Scheme
Theor	y	4 Hrs/week		CT-I	15 Marks
Tutori	al	-		CT-II	15 Marks
Total Cro	edits	4		CA	10 Marks
Duration of	of ESE:	3 Hrs.		ESE	60 Marks
Pre-Requ	uisites :	Human Resour	ce Management, Organizational Behavior	<b>Total Marks</b>	100 Marks
			<b>Course Contents</b>		
Unit I	Union Assoc	ns: Concept of ciations, Functions	s: Concept of IR, Background to IR, Evolution of Trade Unions, Trade Union Movemons of Trade Unions, Types & Structure of T	ent in India, Trade Unions	Employers'
Unit II	Dispu		S: Concept of Industrial Conflicts/ Disputes Impact of Industrial Dispute, Strikes & Lo		
Unit III	Barga	aining & Colle & objective, l	ng: Definition, importance, types ,prerequetive Bargaining in India; Workers Participerorms & levels of participation, conditions	pation: Concept	t & meaning,
Unit IV	_	e Legislations: as Act 1965	Payment of Wages Act 1936, Minimum W	Vages Act 1948	R, Payment of
Unit V	Insura	• •	<b>islations:</b> Workman's Compensation Act 1 Employees Provident Fund Act 1952, Payet, 1961		
Text Boo	ks				
T.1		•	amics of IR, Himalaya Publishing House		
T.2	B.D. S	Singh Industrial	Relations & Labour Legislations, Excel Publ	lications.	
Referenc					
R.1	A M S	arma, Industria	l Jurisprudence and Labour Legislation, Him	alaya Publishin	g
R.2	P.K.Pa	adhi, House Lab	our & Industrial Legislation, Prentice Hall In	ndia.	
Useful Li	inks				
1	https://	/nptel.ac.in/cou	rses/110/101/110101153/		

	Course Outcomes	CL	Class Sessions
MBA32403(B).1	Acquire current Industrial Relation Legislative Proposals and Impact of Labor Laws on Human Resource Management.	3	8
MBA32403(B).2	<b>Determine</b> the Industrial Conflicts.	4	8
MBA32403(B).3	<b>Discuss</b> the importance and practices to be adopted for workers participation and Collective Bargaining.	3	8
MBA32403(B).4	Design Wage legislation.	3	8
MBA32403(B).5	Explain social security legislations.	6	8



Wardha Road, Nagpur-441 108







Semester - IV	MBA32404(B)	International Marketing Management		
Teaching	Scheme		Examinati	on Scheme
Theory	4 Hrs/week		CT-I	15 Marks

Tutorial	-
<b>Total Credits</b>	4
ration of ESE	: 3 Hrs.

Pre-Requisites: Organization Management, Marketing Management, Business Ethics, International Business

Total Marks

100 Marks

#### **Course Contents**

Unit I	<b>Introduction of International Marketing</b> - Definition, Features of International Marketing, Basis of International Marketing, Trends in International Marketing, Issues in transcending					
	International Boundaries, Intellectual Property Protections.					
	Planning for International Marketing - Introduction, Global Marketing a Need of the Day,					
Unit II	International Marketing Plan, Mode of Payment, Methods of Payment on Import,					
	Consignment Purchase, Cash in Advance (Pre-payment), Down Payment, Open Payment,					
	Documentary Collections, Letter of Credit					
***	International Marketing Mix - Identification of Market, Consumer Index , Global Product					
Unit III	policy Decisions, promotion, pricing, distribution strategy					
	International Service Sector Marketing – Introduction, GATS Principles, Standardization					
Unit IV	of International Services, Service Quality, Measurement of Service Quality, International					
	Direct Marketing & Social Media Marketing					
	Global Branding - Attributes, Benefits, Values, Culture, Personality, User, Global Brand					
Unit V Development, Implication of Brand Equity concept, Global Branding opportunities						
	challenges					
/ID						

#### **Text Books**

- T.1 . International Marketing, 2nd Edition, Rakesh Mohan Joshi, Oxford University PressISBN-13: 978-019807702
  - T.2 International Marketing, 4thEdition, R. Srinivasan, PHI Learning, ISBN-13: 978-8120352384
  - T.3 Global Marketing Management, 8e, Warren J Keegan, Pearson Education, ISBN-13: 978-933258432

#### **Reference Books**

R.1 International Marketing Management, Subhash Jain, CBS; 3 edition, ISBN-13: 978-8123912752
 R.2 Ambrish Gupta: "Financial Accounting Management an Analytical Perspective", Pearson Education-2009
 R.3 Sehgal, "Accounts for Management", Taxman Publication Pvt. Ltd

#### **Useful Links**

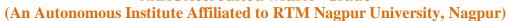
1 https://nptel.ac.in/courses/110/101/110101131/

	Course	CL	Class Sessions
	Outcomes		
MBA32404(B).1	<b>Differentiate</b> between domestic marketing and internationalmarketing and understand clearly features	3	8
	of International		
	Marketing		
MBA32404(B).2	<b>Explain</b> the planning, & various procedures in Internationalmarketing.	4	8
MBA32404(B).3	<b>Develop</b> Global Product Policy decisions	6	8
MBA32404(B).4	<b>Design</b> strategies for International Service Sector Marketing	6	8
MBA32404(B).5	<b>Design</b> functional level strategies for Global Branding.	6	8



Wardha Road, Nagpur-441 108







**Program:** Master of Business Administration

- IV	MBA32405 (B	s): Financial Derivatives & Corporate Taxation	on				
ching Sc			- IV MBA32405 (B): Financial Derivatives & Corporate Taxation				
ching be	heme		Examinati	on Scheme			
y	4 Hrs/week		CT-I	15 Marks			
al	-		CT-II	15 Marks			
edits	4		CA	10 Marks			
of ESE: 3	Hrs.		ESE	60 Marks			
uisites:	Financial Mana	-	Total Marks	100 Marks			
total inc	come, Total taxa	able income under five heads, , Agricultural					
& reven	ue expenditure,						
	_			ome from			
Income exempt from tax: Tax rebates, types of companies recognized by Income Tax Act, Deductions relating to company assessee of chapter VI., TDS, Filing of return,.							
<b>Tax planning</b> : Set off & Carry forward of losses, Advanced tax, MAT, Self assessment tax., GST: Meaning and definition, taxable event of GST, Constitutional provision, levy and collection, composite scheme, time of supply, place of supply, valuation, input tax credit, registration, reverse charge mechanism, return. Computation of tax liability.							
ks							
Ahuja, &	Gupta, (2015).	Systematic Approach to Income Tax, Bharat	Law House				
V. S Datey, (2015) Indirect Taxes, Taxmann Publications							
e Books							
Bhagwat	i Prasad, (2015)	. Direct Taxes Law & Practice, WishwaPrakas	han				
V. K., Singhania, KapilSinghania, Monica Singhania, (2015). Students guide to Direct Taxes, Taxmann Publications							
https://np	otel.ac.in/course	s/110/105/110105156/					
	Definition total incomputer assesses Income capital graph Income capital	Definition of Income total income, Total taxa computation of taxable  Income from Business & revenue expenditure, assesses only)  Income from capital capital gains and income Income exempt from Deductions relating to a Collection, composite s registration, reverse challes.  Ahuja, & Gupta, (2015).  V. S Datey, (2015) Indirect Books  Bhagwati Prasad, (2015).  V. K., Singhania, KapilSin Taxmann Publications	Tax planning: Set off & Carry forward of losses, Advanced tax, GST: Meaning and definition, taxable event of GST, Constitucollection, composite scheme, time of supply, varegistration, reverse charge mechanism, return. Computation of tax liks  Ahuja, & Gupta, (2015). Direct Taxes Law & Practice, WishwaPrakas V. K., Singhania, KapilSinghania, Monica Singhania, (2015). Students Taxmann Publications  Course Contents  Course Course  Course Course	rotal Marks  Course Contents  Definition of Income & Assessee :Previous year, Assessment year, Residential total income, Total taxable income under five heads, Agricultural income, simple computation of taxable income under five heads, Agricultural income, simple computation of taxable income under the head salary  Income from Business & Profession: Distinction between capital and revenue re & revenue expenditure, Computation of income under the head Business & Profess assesses only)  Income from capital gains & other sources: Meaning & computation of inc capital gains and income from other sources (relating to company assessee only).  Income exempt from tax: Tax rebates, types of companies recognized by Income Deductions relating to company assessee of chapter VI., TDS, Filing of return,.  Tax planning: Set off & Carry forward of losses, Advanced tax, MAT, Self ass GST: Meaning and definition, taxable event of GST, Constitutional provisic collection, composite scheme, time of supply, place of supply, valuation, input registration, reverse charge mechanism, return. Computation of tax liability.  ks  Ahuja, & Gupta, (2015). Systematic Approach to Income Tax, Bharat Law House  V. S Datey, (2015) Indirect Taxes, Taxmann Publications  e Books  Bhagwati Prasad, (2015). Direct Taxes Law & Practice, WishwaPrakashan  V. K., Singhania, KapilSinghania, Monica Singhania, (2015). Students guide to Direct Taxmann Publications  nks			

	Course Outcomes	CL	Class Sessions
MBA32405(B).1	Apply the concepts and laws of direct and indirect taxes in practical life.	3	8
MBA32405(B).2	Compute the amount of tax under the various heads of direct tax.	4	8
MBA32405(B).3	Analyze the impact of tax imposition on financial position of business	4	8
MBA32405(B).4	Evaluate the tax planning and tax assessment for formulating the financial policies of the organization.	5	8
MBA32405(B).5	Discuss about taxation policy and GST	6	8



Wardha Road, Nagpur-441 108







Program	Program: Master of Business Administration				
Semester	ester - IV MBA32406(B): Transportation and Operation Planning				
Tea	ching	Scheme		Examinati	on Scheme
Theory	y	4 Hrs/week		CT-I	15 Marks
Tutoria	al	-		CT-II	15 Marks
<b>Total Cre</b>	dits	4		CA	10 Marks
Duration o	Duration of ESE: 3 Hrs.			ESE	60 Marks
_	Pre-Requisites: Operation Management, Quantitative Techniques, Operation Research, Logistic and supply chain Management  Total Marks  100 Ma				100 Marks
			<b>Course Contents</b>		
Unit I	<b>Unit I</b> Transportation: Fundamental of transportation, Relationship of transportation to other business functions, Modes of transportation, Transport mode selection, methods – transport costs, transport regulations, intra and interstate transport of goods. Transport Industry in India, Trends in Modern Transport, Transport organization: Functions, structure, and				

# Unit II

hierarchy.

**Channels of distribution:** Distribution Channels, channel functions – channel structure – designing distribution channel – choice of distribution channels – factors effecting choice of distribution channels . Functions of intermediaries, types of intermediaries, variables in selecting channel members, motivating, training, evaluating channel members, modifying channel arrangements.

# Unit III

**Physical Distribution**: Definition, Need and functions of physical distribution, Factors affecting physical distribution, A system perspective. Physical distribution trends in India, – rising costs& need for control, Cost reduction Opportunities, complexities of physical distribution, conflict resolution Information Technology for Supply Chain: History, concept and need for IT, IT application for supply chain, Enabling supply chain through IT, Service oriented architecture (SOA), RFID

# Unit IV

**Aggregate Planning** – Need for Aggregate Production planning, Capacity adjustments, Basic Strategies, Level and Chase Strategies MPS and MRP – Concepts of MPS and MRP, Bill of Materials, Capacity requirement planning, Relation between MPS,CRP and MRP

Unit V

**Distribution Planning** – Sales Orders, Lead time considerations, Inventory analysis and distribution planning, Use of ERP Green Logistics: Environment Sustainability, rhetoric and reality Model, measuring the environmental impact

of freight transport EURO and BS -6 norms, Arguments for and against the internalization of

#### **Text Books**

- T.1 Basics of distribution management: a logistics approach by satish k. Kapoor, purvakansal
- T.2 Logistics and Supply Chain Management, MacMillan 2003, 1st Edition

environmental costs, Monetary valuation of environmental costs.

#### **Reference Books**

- R.1 Logistics Operations and Management: Concepts and Models edited by RezaFarahani, Shabnam Rezapour, Laleh Kardar
- R.2 Green Logistics: Improving the Environmental Sustainability of Logistics edited by AlanMcKinnon, Michael Browne, Anthony Whiteing, Maja Piecyk

## **Useful Links**

1 https://nptel.ac.in/courses/110/101/110101131/

	Course Outcomes	PO/PSO	CL	Class Sessions
MBA32406(B).1	Discover the importance of logistics in the formation of business strategy and the conduct of supply chain operations.	PO1,PO2,PO4,PO5,PSO1,PS O2	3	8
MBA32406(B).2	Evaluate various cost measures in transportation techniques.	PO1,PO2,PO4,PO5,PSO1,PS O2	5	8
MBA32406(B).3	Determine the factors of physical distribution.	PO1,PO2,PO4,PO5,PSO1,PS O2	5	8
MBA32406(B).4	Examine the use of information technology in different areas in logistics management.	PO1,PO2,PO4,PO5,PSO1,PS O2	4	8
MBA32406(B).5	Analyze the need of recent trends in logistics like Green logistics.	PO1,PO2,PO4,PO5,PSO1,PS O2	4	8



Wardha Road, Nagpur-441 108



NAAC Accredited with A+ Grade
(An Autonomous Institute Affiliated to RTM Nagpur University, Nagpur)

D.					THE PART OF	111,01510991100	5F di	<u>/                                     </u>
Progran				ness Administration				
Semester	- IV	MBA	.32407(B)	) Web Designing & Multim	edia			
Tea	ching S	Schen	ne			Exami	inati	on Scheme
Theor	y	4 Hı	rs/week			CT-I		15 Marks
Tutori	al		-			CT-II	[	15 Marks
Total Cro	edits		4			CA		10 Marks
Duration of	of ESE:	3 Hrs				ESE		60 Marks
Pre-Requ	iisites:	Infor	mation T	echnology		Total Ma	rks	100 Marks
				Course Conte	nts	•		
Unit I	Graph	ics a	nd image	rpermedia, world wide we e data representation graph lor science, color models in	nics/image da	ta types, file	form	
Unit II	Fundamental concepts in video and digital audio Types of video signals, analog video, digital video, digitization of sound, MIDI, quantization and transmission of audio.							
Unit III	HTMI	HTML - tags, lists, tables, Frames, layers, using images in web pages and DHTML						
Unit IV	Introduction in VB Script - Data types, operators, control structures, functions and strings.							
Unit V	Introduction to java script - Operators, identifiers, control structures, functions arrays anderror handling.							
Text Boo	ks							
T.1	T.1 Mastering HTML- CYBEX Publication							
Reference Books								
Complete Reference VB Script and Java Script – Tata McGraw Hill Dynamic HTML-O'Reilly Media Internet & Web Technologies- Tata McGraw-Hill Education								
Useful Li	nks							
	1	WW	vw.3 <b>\$</b> c <b>ho</b> w	oww.wornchool.com				
				<b>Course Outcomes</b>	PO	CL	(	Class Sessions

	Course Outcomes	PO	CL	Class Sessions
MBA32407(B).1	Acquire technical competence in WebDesigning and Multimedia Applications	PO1, PO2, PO4	3	8
MBA32407(B).2	Execute use of HTML, VB Scriptand Java script	PO3, PO5,	5	8

MBA32407(B).3	Integrate Web and Multimedia withbusiness objectives of the organization	PO1, PO3, PO5	4	8
MBA32407(B).4	Build out the VB script.	PO2, PO4, PO5	6	8
MBA32407(B).5	Acquire technical competence in WebDesigning and Multimedia Applications	PO1, PO2	6	8



Wardha Road, Nagpur - 441108





An Autonomous Institute Affiliated to RTM Nagpur University, Nagpur)

Program :	Master	of Business	Administration
-----------	--------	-------------	----------------

Semester-IV	MBA32408 (A	A) Data Mining & Knowledge Discovery		
Teaching Scheme			Examination	n Scheme
Theory	4Hrs/week		CT-I	15 Marks
Tutorial	-		CT-II	15 Marks
<b>Total Credits</b>	4		CA	10 Marks
Duration of ESE: 3Hrs.			ESE	60 Marks
<b>Pre-Requisites:</b> Introduction to I		Business Analytics	Total Marks	100 Marks

#### Course Objectives:

- Understand the fundamental concepts, processes, and applications of data mining and knowledge discovery in databases.
- Apply data preprocessing, cleaning, transformation, and reduction techniques to prepare raw data for mining tasks.
- Implement key data mining algorithms for classification, clustering, association rule mining, and prediction using analytical tools.
- Analyze mined patterns and discovered knowledge to support strategic business decisions across various functional areas.
- Evaluate the performance, accuracy, and suitability of different data mining models and techniques real-world business problems.

#### **Course Contents**

#### Introduction to Data Mining & KDD- Concept of Data Mining and Knowledge Discovery in Databases (KDD)- Steps in KDD: Selection, Preprocessing, Transformation, Data Mining, UnitI Evaluation - Types of data: structured, unstructured, transactional - Data mining functionalities: classification, clustering, association, anomaly detection - Applications of data mining in business, marketing, finance, healthcare.

Data Preprocessing & Data Warehousing - Data quality issues: missing values, noise, outliers. - Data cleaning: handling missing data, smoothing, outlier detection - Data transformation: normalization, Unit II discretization, concept hierarchies - Data reduction: PCA, sampling, dimensionality reduction-Overview of data warehouses: OLAP operations, star/snowflake schema.

Association Rule Mining - Market Basket Analysis - Concepts: support, confidence, lift, conviction **Unit III** - Apriori algorithm: candidate generation, pruning - FP-Tree and FP-Growth algorithm - Mining multilevel and multidimensional association rules - Applications in retail, cross-selling, promotional strategy

Classification Techniques- Decision Tree classification (ID3, C4.5, CART) - Bayesian **Unit IV** Classification: Naïve Bayes -k-Nearest Neighbor (k-NN) classification - Rule-based classifiers Model evaluation metrics: confusion matrix, accuracy, precision, recall, F1, ROC, AUC - Case studies in credit scoring, fraud detection, churn prediction.

	Clustering & Applications of Data Mining- Clustering concepts and requirements - Partitioning			
UnitV	methods: k-Means, k-Medoids - Hierarchical clustering: agglomerative, divisive - Density-based			
	clustering: DBSCAN - Outlier and anomaly detection - Business applications: customer segmentation,			
	recommender systems, risk analytics - Ethical issues in data mining and privacy concerns.			
TextBoo	ks			
T.1	Jiawei Han, Micheline Kamber, and Jian Pei — Data Mining: Concepts and Techniques			
T.2	Ian H. Witten, Eibe Frank, Mark A. Hall — Data Mining: Practical Machine Learning Tools and Techniques			
Reference	A			
R.1	Pang-Ning Tan, Michael Steinbach, Vipin Kumar — Introduction to Data Mining			
R.2	Margaret H. Dunham — Data Mining: Introductory and Advanced Topics			
UsefulLi	nks			
1	https://nptel.ac.in/courses/109105198			

	Course Outcomes	CL	Class Sessions
MBA32408A.1	Explain the fundamental concepts of Data	2	8
	Mining and the Knowledge Discovery in		O
	Databases (KDD) process, including data		
	types, data quality issues, and major data		
	mining tasks.		
MBA32408A.2	Apply data preprocessing techniques	3	
WIDA32400A.2	such as cleaning, transformation,		8
	reduction, and integration to prepare		
	datasets for mining and analytical		
	modeling.		
MBA32408A.3	Analyze data using association rule	4	8
	mining, classification, and clustering		o
	techniques, and interpret results to		
	support managerial decision-making.		
MBA32408A.4	Evaluate different data mining models	5	
WIDA32400A.4	and algorithms using performance		8
	metrics such as accuracy, lift,		
	confidence, precision, recall, ROC, and		
	cluster validity indices.		
MD 4 22 400 4 5	Design a data mining solution for a	6	
MBA32408A.5	business problem by selecting		8
	appropriate techniques and tools, and		
	demonstrate ethical and responsible use of		
	data in analytics.		



Wardha Road, Nagpur - 441108







### **Program: Master of Business Administration**

<b>Semester-IV</b>	MBA32408B	<b>Big Data Analytics</b>		
Teaching Scheme			Examination	Scheme
Theory	4Hrs/week		CT-I	15 Marks
Tutorial	-		CT-II	15 Marks
<b>Total Credits</b>	4		CA	10 Marks
Duration of ESE: 3Hrs.			ESE	60 Marks
Pre-Requisites	: Introduction to	Business Analytics	<b>Total Marks</b>	100 Marks

#### **Course Objectives:**

4.

- To introduce students to the concepts, characteristics, and challenges of Big Data and enable them to 1. understand the need for advanced data processing technologies. To develop the ability to use Big Data tools and frameworks such as Hadoop, HDFS, MapReduce, 2.
  - Spark, and NoSQL for large-scale data storage and processing.
  - To train students to apply data preprocessing, data mining, and analytical techniques for extracting 3. meaningful patterns and insights from complex datasets. To enable learners to design and implement Big Data solutions for real-world business and industry
  - problems using appropriate analytical methodologies. To equip students with hands-on skills for working with Big Data environments, emphasizing 5

scalability, performance optimization, and real-time analytics.

	Course Contents			
UnitI	Introduction to Big Data: Definition, evolution, characteristics of Big Data (Volume, Veloc Variety, Veracity, Value) Types of Big Data: structured, semi-structured, unstructured Sour of Big Data: social media, sensors, logs, transactions - Challenges in Big Data management Introduction to Data Science lifecycle in Big Data context.			
UnitII	Hadoop Ecosystem & HDFS Architecture - Introduction to Hadoop and its components - HDFS (Hadoop Distributed File System): architecture, NameNode, DataNode - Data replication, fault tolerance, block size, rack awareness - Hadoop 1.x vs 2.x (YARN architecture) Hadoop ecosystem overview: Hive, Pig, HBase, Sqoop, Flume, Oozie, Zookeeper.			
UnitIII	MapReduce & NoSQL Databases - MapReduce programming model: map, shuffle, reduce phases - Use cases of MapReduce in analytics. Limitations of MapReduce and evolution towards distributed frameworks - Introduction to NoSQL databases: key-value, columnar, graph, document-based. MongoDB, Cassandra, HBase – concepts and business applications.			
UnitIV	Apache Spark & Real-Time Data Processing: Introduction to Apache Spark: RDDs, DataFrames, Spark SQL - Spark vs Hadoop MapReduce - Spark MLlib for machine learning Streaming analytics: Apache Spark Streaming, Kafka basics - Real-time analytics use cases in retail, finance, telecom.			
UnitV	<b>Big Data Application, Governance &amp; Ethics:</b> Big Data applications in marketing, finance, supply chain, healthcare, HR analytics Big Data visualization (Tableau, Power BI) - Data governance in			

	Big Data: quality, lineage, privacy - Ethical issues: data security, transparency, GDPR considerations - Capstone mini project: analyzing a large dataset using Hadoop/Spark tools.
TextBool	ks
T.1	Tom White - Hadoop: The Definitive Guide, O'Reilly.
T.2	Seema Acharya, Subhashini Chellappan – Big Data and Analytics.
Reference	eeBooks
R.1	Rajkumar Buyya – Big Data: Principles and Paradigms.
R.2	Benjamin Bengfort – Data Analytics with Hadoop.
UsefulLi	nks
1	Free Hadoop course

	Course Outcomes	CL	Cla ss Sessi ons
MBA32408B.1	Explain the fundamental concepts,	2	
NID/132400D:1	characteristics, and challenges of Big	_	8
	Data, including the 5Vs, data types, and		
	Big Data lifecycle.		
	Apply Hadoop ecosystem tools and		
MBA32408B.2	HDFS concepts to manage and store	3	8
	large-scale datasets in distributed		
	environments.		
MBA32408B.3	Analyze large datasets using	4	8
	MapReduce, NoSQL databases, and		0
	Spark frameworks to derive meaningful		
	insights for business decision-making.		
MBA32408B.4	Evaluate different Big Data	5	
WIDA52400D.4	technologies and processing models	3	8
	(batch, real-time, in-memory) for their		
	applicability to business scenarios.		
MBA32408B.5	Design Big Data analytics solutions	6	
WIDA32400B.3	using Hadoop/Spark and NoSQL tools,	O	8
	ensuring responsible data governance,		
	privacy, and ethical considerations.		