Course Code	MB18MI01	Course Name	DATA MINING FOR BUSINESS DECISIONS	Course Category	Specialization	L	T	P	C
						1	0	4	3

Pre-requisite Courses	Nil	Co-requisite Courses	NA	Progressive Courses	NA
Course Offering Department	MBA	Data Book / Codes/Standards			

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning	Program Learning Outcomes (PLO)

CLR-1 :	To have a good grasp of the basic theoretical elements of Data mining and their application business	1	2	3
CLR-2 :	To understand the practical elements of Data mining and their applications in business	*Level of Thinking (Bloom)*	*Expected Proficiency (%)*	*Expected Attainment (%)*
CLR-3 :	To gain knowledge on analyzing business problem by applying suitable model			
CLR-4 :	To develop skills to apply the model for predictive analytical solution			
CLR-5 :	To Learn the decision-making constituencies in a business with the help of Data Mining			

On completion of this course the students should be in a position to exhibit the following learning skills:

Course Learning Outcomes (CLO):	*At the end of this course, learners will be able to:*				1	2	3	4	5	6
					PO1- Business Environment and Domain Knowledge	PO2 - Critical Thinking Business Analysis, Problem solving and Innovation	PO3 - Global Exposure and cross cultural understanding	PO4 – Social Responsiveness and Ethics	PO5 – Effective Communication	PO6 – Leadership and Team Work
CLO-1	Become acquainted with the theoretical elements of Data Mining and their applications.	2	60	50	H	H	H	H	H	H
CLO-2	Become acquainted with the practical elements of Data Mining and their applications.	2	80	70	M	H	M	H	M	M
CLO-3	Acquire experience in analyzing a business problem using appropriate model	1	80	75	M	H	M	H	M	M
CLO-4	Develop the skills to use the model for a predictive analytical solution	2	80	70	M	H	M	M	M	M
CLO-5	Learn the decision-making constituencies in a business with the help of Data Mining	3	90	80	M	H	H	M	M	M

Duration (hour)		6	6	6	6	6
S-1	SLO-1	Introduction to Data mining, Gathering and selecting data	Exploratory Analytics using R/Rattle	Predictive Modeling using R/Rattle	Market Basket Analysis	Text Mining , Applications

	SLO-2	Data cleansing and preparation- Outputs of Data Mining	Summarizing numerical data, Anomalies in numerical data	Model Building Process	Association rule Mining, Business Applications of Association Rules	Text Mining Process Term Document Matrix Mining the TDM
S-2	SLO-1	Evaluating Data Mining Results-	Visualizing relations between variables	Decision Tree problem	Representing Association Rules ,	Comparing Text Mining and Data Mining
	SLO-2	Tools and Platforms for Data Mining	Basic metrics	Decision Tree Construction	Algorithms for Association Rule	Text Mining Best Practices
S-3	SLO-1	Data Mining Best Practices	Principal Component Analysis	ANN - Business Applications of ANN Design Principles of an Artificial Neural Network Representation of a Neural Network	Apriori Algorithm	Web Mining, Web content mining
	SLO-2	Data Mining Techniques	Confidence intervals and significance	Architecting a Neural Network Developing an ANN Advantages and Disadvantages of using ANNs	Association rules exercise Creating Association Rules	Web structure mining Web usage mining
S-4	SLO-1	Myths about data mining Data Mining Mistakes	Correlational analysis	Clustering - Applications of Cluster Analysis Definition of a Cluster Representing clusters Clustering techniques Clustering Exercise	Naïve Bayes Analysis	Web Mining Algorithms

	SLO-2	Deriving Value from Data Mining	Association Analysis and Correlation Analysis	K-Means Algorithm for clustering Selecting the number of clusters	Advanced methods	Best Practices in Data Analysis and BI
S-5	SLO-1	Mining Applications	Visualizing Data Excellence in Visualization Types of Charts	Advantages and Disadvantages of K-Means algorithm	Applications	BI Applications Customer Relationship Management
	SLO-2	Basic concepts	Visualization Example Tips for Data Visualization Applications	Regression	Case study/Exercises	Healthcare and Wellness Education Retail
S-6	SLO-1	Case study	Case study	Logistic Regression– Applications	Case study	Banking Financial Services Insurance Manufacturing Telecom Public Sector
	SLO-2	Case study	Case study	Case study	Case study	Case study

Learning Resources

1. Anil Maheshwari ,Data Analytics. McGraw Hill, 2017.
2. Eric Siegel, Thomas H. Davenport, "Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie, or Die", Wiley, 2013
3. Anasse Bari, Mohamed Chaouchi and Tommy Jung ,Predictive Analytics, Willey,2015
4. Alberto Cordoba, "Understanding the Predictive Analytics Lifecycle", Wiley, 2014.
5. Dean Abbott, Applied Predictive Analytics, Willey, 2014.

Learning Assessment											
	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)								Final Examination (50% weightage)	
		CLA – 1 (10%)		CLA – 2 (15%)		CLA – 3 (15%)		CLA – 4 (10%)#			
		Theory	Practice	Theory	Practice	Theory	Practice	Theory	Practice	Theory	Practice
Level 1	Remember Understand	20	10	25	5	30	0	35	5	30	0
Level 2	Apply Analyze	30	10	35	5	40	0	30	0	40	0
Level 3	Evaluate	20	10	25	5	30	0	30	0	30	0

	Create										
	Total	100 %		100 %		100 %		100 %		100 %	

CLA – 4 can be from any combination of these: Assignments, Seminars, Tech Talks, Mini-Projects, Case-Studies, Self-Study, MOOCs, Certifications, Conf. Paper etc.,

Course Designers		
Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
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