

Branch Name:	BCA (Bachelor of Computer Application)
Program Code:	CS101
Course Title :	DATA MINING-I
Course Code :	2CS1010505
Pre-requisite Course:	Concept of different data mining tasks

Course Objective (CO) :

This course is intended to make the students

- To learn basics of Data Warehouse fundamentals and Information Search techniques using data mining.
- To understand database management and large size data warehousing methods.
- To learn various data mining search techniques and need of data mart over DBMS, database and data warehouse.
- To learn various OLAP technologies which make student capable of handling huge information.

Teaching Scheme(Hours per week)				Evaluation Scheme (Marks)								
Lecture	Tutorial	Practical	Credit	Theory				Practical				Total
				University Assessment		Continuous Assessment		University Assessment		Continuous Assessment		
				Min. Marks	Max. Marks	Min. Marks	Max. Marks	Min. Marks	Max. Marks	Min. Marks	Max. Marks	
3	-	-	3	28	70	12	30	–	–	–	–	100

Subject Contents			
Sr. No.	Topics	Total Hours	Weight (%)
1.	Data Warehouse: An Overview, Architectural, Prospective and Modeling: Definition, Usage and trends, DBMS V/S Data Warehouse, Data Mart, Data Warehouse, Process and Architecture, Characteristics of Data Warehouse, Need for Data Warehouse, Basic Elements of Data Warehouse, Basic Principal of Data warehousing Modeling, User Requirements, Requirement Modeling, Temporal Data Modeling, Temporal Data Modeling Style.	10	20
2.	Multidimensional Data Modeling an Overview, Usage Serve, Metadata: Multidimensional Data Model, Schema for Multidimensional Database: Star and Snowflake Model, MDDM Base Concepts, Requirement Analysis Using MDDM, Geographical Information System and Relational Database, DB2 Spatial Extender, OLAP V/S OLTP, ROLAP V/S MOLAP, Types of OLAP server, Metadata: Types of Metadata, Source of Metadata.	10	20
3.	Introduction to Data Mining : Importance of Data Mining, Data Mining Functionalities, Classification of Data mining systems, Data mining Architecture, Major Issues in Data Mining, Applications of Data Mining, Social impacts of data mining	10	20

4.	Data Mining: Data mining as process and Functionality, KDD V/S Data mining, Discovery V/S Verification Mode. Data Mining Techniques: Classification, Association Detection, Sequential Pattern Detection, Automatic Cluster Detection, Similar Time Sequence Detection.	9	20
5.	Advanced Topics, Trends and Web Mining: Mining Complex Data Objects: Spatial Mining, Temporal Mining, Multimedia database, Web content mining, Web Structure and usage mining, Data Generalization and summarization, Mining Class Comparison and Characterization.	9	20

Course Learning Outcomes (CLO.):

At the end of this course, the student would be able

CLO.1 To understand the basics fundamental knowledge of Data Warehouse .

CLO.2 To understand large size data warehousing methods.

CLO.3 To implement various data mining search techniques in software development.

CLO.4 To apply various OLAP technologies which make student capable of handling huge information.

Mapping of CLO , PO And PSO

	PO.1	PO.2	PO.3	PO.4	PO.5	PO.6	PO.7	PO.8	PO.9	PO.10	PO.11	PO.12	PSO.1	PSO.2	PSO.3
CLO.1	L		M	L		L	H	L		L	M				L
CLO.2	M	L			M		M		L			L	L		
CLO.3		M	M	L		H		L	M		L			M	
CLO.4	L			L	H		M	L		M		L			M

List of Text book :

1. IBM an Introduction to Building the Data Warehouse PHI Publication.
2. Data Warehousing Fundamentals – Paulraj Ponnaiah Wiley student Edition.

List of Text Reference book :

1. Data Mining: Concept and Techniques. - Jiawei Han & Micheline Kamber, Morgan Kaufmann Publishers, Elsevier, 2nd Edition, 2006.

E-Resources / Web Links:

- https://www.tutorialspoint.com/dwh/dwh_data_warehousing.html
- <https://www.w3resource.com/slides/data-warehousing.php>
- <https://www.slideshare.net/obieefans/data-warehouse-concepts-8164443>
- https://www.tutorialspoint.com/data_mining/
- www.wideskills.com/data-mining-tutorial/data-mining-architecture