



SYMBIOSIS INTERNATIONAL (DEEMED UNIVERSITY)

(Established under section 3 of the UGC Act 1956)

Re - accredited by NAAC with 'A' Grade

Founder: Prof. Dr. S. B. Mujumdar, M.Sc., Ph.D. (Awarded Padma Bhushan and Padma Shri by President of India)

(Established under section 3 of the UGC Act 1956, by notification No.F.9-12/2001-U3
Government of India)

Sub Committee for Curriculum Development

Course Name: Data Warehousing Applications and Data Analysis

Course Code: T3112

(UG/PG): PG

Number of Credits: 3

Level: 5

Learning Objective(s): The objective of this course is to introduce the students the managerial and design issues relating to data warehouse, its role in organization, support for decision-making and how information technology can be leveraged to provide business value. Apply state of the art business intelligence, data extraction, data preparation and data mining techniques to a specific case study and dataset. Starting with a business objective and data, work through all stages of an appropriate methodology to extract knowledge from the data in accordance with the business objectives, and present the results to stakeholders in the appropriate language, highlighting how the knowledge learned can be used to add value to the business.

Pedagogy:

Lectures
Class work discussion
Case studies
Presentations
Hands on Exercise

Pre-learning:

Good knowledge of Data Warehouse, RDBMS and Software Engineering.

Course Outline:

Sr.No.	Topic	Hours
1	Data warehousing Application Introduction: What is a Data warehouse, who uses Data warehouse, Need for Data warehouse, Applications of Data warehouse Concepts	2
2	The Data warehouse Data Base: Context of Data warehouse Data Base, Data Base Structures - Organizing Relational Data warehouse - Multi-Dimensional Data Structures - Choosing a Structure, Getting Data into the Data warehouse - Extraction, Transformation, Cleaning, Loading and Summarization, Meta Data - Human Meta Data, Computer Based Meta Data for people to use, Computer-based Meta Data for the computer to use.	6
3	Analyzing the Contexts of the Data warehouse: Active Analysis, User Queries - OLAP, OLAP Software Architecture - Web Based OLAP, General OLAP Product Characteristics, Automated Analysis - Data Mining, Creating a Decision Tree, Correlation and Other Statistical Analysis, Neural Networks, Nearest Neighbour Approaches, Putting the Results to Use.	15
4	Constructing A Data warehouse System: Stages of the Project - The Planning Stage - Justifying the Data warehouse - Obtaining User Buy-in - Overcoming Resistance to the Data warehouse-Developing a Project Plan, Data warehousing Design Approaches - The Architecture Stage - The Data warehouse Data Base - The Analysis Architecture - Data warehouse Hard Ware.	7
5	Lab work: Exploration of ETL tools Microsoft SQL Server Reporting Services (SSRS) Reporting Tool.	15
	Total	45

Books Recommended:


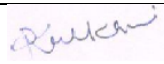
1. Ralph Kimball, .The Data Warehouse Lifecycle toolkit., John Wiley.
2. M Berry and G. Linoff, .Mastering Data Mining., John Wiley.
3. W.H. Inmon, .Building the Data Warehouses., Wiley Dreamtech.
4. R. Kimpall, .The Data Warehouse Toolkit., John Wiley.
5. E.G. Mallach, .Decision Support and Data Warehouse systems. TMH.

Suggested Evaluation Methods:

Quizzes
Assignments
Application Specific Presentations
Mid-Term Test
End-Term Test

Parallel/Similar courses the existing curriculum:

S.No.	Name of the course	Institute where it was offered
1	Data Warehousing and Data Mining	SICSR(BCA)
2	Business Intelligence I	SICSR(MBA)
3	Data Warehousing Architecture and Operations	SICSR(MBA)
4	Data Mining and Algorithms	SICSR(M.Sc.)

Name of Member	Tejaswini Apte	Priti Kulkarni		
Designation	Asst. Professor	Asst. Professor		
Org. / Inst.	SICSR	SICSR		
Signature				

Name of the Expert:

Signature:

Date:

