DEPARTMENT OF COMPUTER SCIENCE

ACADEMIC ACTION PLAN FOR 2013-2014

B.Sc.,(V SEMESTER)/B.Com/BBM III SEMESTER(Modern Database Management System)

Month	Topics to be covered as per syllabus	Topics included otherthan state level common-core syllabus	Beyond syllabus	General Lectures/ Seminars
June	**THE DATABASE MANAGEMENT:** Basic Concepts and Definitions. File Processing Systems at Pine Valley Furniture Company. The Range of Database Applications. Advantages of the Database Approach. Costs and Risks of the Database-Approach. Components of the Database Environment.	The Range of Database Applications. Components of the Database Environment.		
July	**DATA DEVELOPMENT PROCESS:** Database Development within Information systems Development. Database Development Process. Three- Schema Architecture for Database Development. Three-Tiered Database location Architecture.	Three- Schema Architecture for Database Development. Three-Tiered Database location Architecture.	**DBMS** Architecture. Choosing the correct **DBMS** to use for each **new** application being developed.	Seminars
	SQL: The SQL Environment. Defining a Database in SQL. Inserting, updating and deleting data. Viewing data in the tables. Cluases of the SELECT statement: Using Expressions, Functions, Wildcards, Ranges etc., Sorting & categorising Results.	Cluases of the SELECT statement: Using Expressions, Functions, Wildcards, Ranges etc., Sorting & categorising Results.	OLE data types	
August	**MODELING DATA IN THE ORGANIZATION:** Modeling the Rules of the Organization. The E-R Model . Entity – Relation Ship Model Constructs. Relationships. E-R Modeling Example : Pine Valley Furniture Company.	E-R Modeling Example : Pine Valley Furniture Company.		Seminars
	THE ENHANCED E-R MODEL AND THE BUSINESS RULES: Representing Super types and Subtypes. Specifying Constraints in Super type/Subtype Relationships. EER Modeling Example: Pine Valley Furniture. Entity Clustering. Business Rules Revisited.	Specifying Constraints in Super type/Subtype Relationships. EER Modeling Example: Pine Valley Furniture. Business Rules Revisited.	More real time examples for EER Diagrams	Seminars
	SQL: Internal Schema Definitions in RDBMS. Processing Single Tables. Oracle functions – Data constraints - Processing Multiple Tables – Subqueries – Joins.	Data constraints	SQL SERVER	
September	**LOGICAL DATABASE DESIGN AND THE RELATIONAL MODEL:** The Relational Data Model. Integrity Constraints. Transforming EER Diagrams into Relations. Introduction to Normalization. The Basic Normal Forms. Merging Relations.	Transforming EER Diagrams into Relations.Merging Relations.		Seminars
	ADVANCED NORMAL FORMS: Boyee-Codd Normal Form. Fourth Normal Form. Higher Normal Forms.			