



**SARDAR PATEL UNIVERSITY**  
**Vallabh Vidyanagar, Gujarat**  
**(Reaccredited with 'A' Grade by NAAC (CGPA 3.25)**  
**Syllabus with effect from the Academic Year 2021-2022**

(BCom) (Business Studies)( Semester -II)

Course Code	UB02DCOM84	Title of the Course	Computer Applications-IV
Total Credits of the Course	03	Hours per Week	03 + 02 Practical per Batch

Course Objectives:	<ol style="list-style-type: none"><li>1. To develop computer skill in commerce students.</li><li>2. Computer skill helps commerce students to meet the needs of modern business.</li><li>3. Computer skilled students can efficiently use Information and Communication Technology as modern businesses are highly rely on it.</li><li>4. To develop the skill to use DBMS for business, commercial and financial purpose.</li><li>5. Computer skill increase the chances of getting hired.</li></ol>
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Course Content		
Unit	Description	Weightage* (%)
1.	Data Processing and Data Model: Concepts of Data Processing – An Important Aspect of any Business, Limitation of Manual Data Processing. Data and Information, Data / Information Processing and Databases, Data Types. File system, Disadvantage of File system, Database system, Data Model (Hierarchical, Network, Relational, Object oriented). Advantage and disadvantage of each Data Model.	25%
2.	Introduction to DBMS:: Character, Field, Record, File, Table, Database, Types of Databases, Database Management system, Objectives of DBMS, Components of DBMS, Advantages and Disadvantages of Database Management System Normalization: Normalization, First, Second, Third Normal form, BCNF Introduction to DBMS Package (Microsoft Access - 2010):Introduction of Microsoft Access database, creating a database (Using Wizard, & Design) and Objects, Fields and data types, creating a table, Field Properties, Save and Close a Table, Add and Save Records, Edit Records and Close a Table, modify fields in a Table, Modify Columns and Rows in Data Sheet, Validation rule to a Field and Its Properties, Primary key, Foreign key, Relationship between table, types of relationship, Import – Export from other file format.	25%
3.	Data Manipulations in DBMS through SQL: Introduction of SQL, Creating, Modifying and Saving a Query, Insertion of data into a Table (INSERT), Modify the Contents of a Table (UPDATE), Display Records from a Table (SELECT), Remove Records from a Table (DELETE), Ordering and Filtering Records of a Table, Use of Relational (Comparison), Operators (<,>, <=, >=, #, <>) and Logical Operators (AND, OR, NOT) in Query. Use of Aggregate (Group) Functions: AVG(), COUNT(), MAX(), MIN(), SUM(), Character Functions: LCASE(),	25%



	UCASE(), LEN(), STR(), MID(), LEFT(), RIGHT(), Date Functions: DATE(), HOUR(), DAY(), MONTH(), YEAR().	
4.	Creating and Customizing Forms, Reports, Labels: Introduction of Form, Creation with Form Wizard, View, Add, Delete and Save Records, Save and Close a Form, Change Form Design, Select, Resize, Move and Delete controls, Change Fonts, Size and Color of Text, showing data from more than one table, Introduction of Report, create a report, Preview, print and save a report, Report in design view Types of Reports and Forms. Create Label.	25%

Teaching-Learning Methodology	Theory (50%) + Practical (50%) Practical : Practical are based on above Units.(Weightage 50%) – Two Practical periods per week per batch.
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Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written / Practical Examination (As per CBCS R.6.8.3)	15%
2.	Internal Continuous Assessment in the form of Practical, Viva-voce, Quizzes, Seminars, Assignments, Attendance (As per CBCS R.6.8.3)	15%
3.	University Examination Theory (50%) + Practical (50%)	70%

Course Outcomes: Having completed this course, the learner will be able to	
1.	<ul style="list-style-type: none"> <li>Understand database concepts and structures and database models.</li> </ul>
2.	<ul style="list-style-type: none"> <li>Analyse the basic elements of a relational database management system.</li> </ul>
3.	<ul style="list-style-type: none"> <li>Design entity relationship and convert entity relationship diagrams into RDBMS and formulate SQL queries on the respect data into RDBMS and formulate SQL queries on the data.</li> </ul>
4.	<ul style="list-style-type: none"> <li>Create and customize Forms and Reports.</li> </ul>

Suggested References:	
Sr. No.	References
1.	Data base Management Systems, Raghu Ramakrishnan, Johannes Gehrke, McGraw Hill Education (India) Private Limited, 3rd Edition.
2.	Introduction to Database Systems, C.J.Date, Pearson Education



On-line resources to be used if available as reference material :

On-line Resources:

[https://onlinecourses.nptel.ac.in/noc18\\_cs15/preview](https://onlinecourses.nptel.ac.in/noc18_cs15/preview)

<http://nptel.ac.in/courses/106106093/>

<http://nptel.ac.in/courses/106106095/>

Video Source:

<https://www.youtube.com/watch?v=EUzsy3W4I0g>

<https://www.youtube.com/playlist?list=PL52484DF04A264E59>

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