PATEL IN

SARDAR PATEL UNIVERSITY

Vallabh Vidyanagar, Gujarat

(Reaccredited with 'A' Grade by NAAC (CGPA 3.25) Syllabus with effect from the Academic Year 2021-2022

| Course Code | PS01CDCT51 | Title of the | PC Software |
|---------------|------------|--------------|-------------|
| | | Course | |
| Total Credits | 4 | Hours per | 4 |
| of the Course | | Week | |

| Course Objectives: To introduce students to • basics of computer systems and PC Software • features of word processing packages, spreadsheets, and presentation tools. |
|---|
|---|

| Course Content | | | |
|----------------|---|------------|--|
| Unit | Description | Weightage* | |
| 1. | PC Software— I Introduction to personal computers Significance and use of a typical PC Operating System Introduction to Editors Classification of PC Software Introduction to word processing Examples of some popular word processing packages Uses of word processors Creation, editing, and formatting of documents | 25 | |
| 2. | PC Software – II - Mail merge facility in word processors - Global search & replacement of text - Page layout and printing of a document - Spelling checker, Tables, Templates, Advanced features - Introduction to spreadsheets - Examples of some popular spreadsheet packages - Uses of spreadsheet packages | 25 | |
| 3. | PC Software – III - Addressing cells in a spreadsheet - Building Spreadsheets using formulas, conditional calculations, built-in functions - Graph-plotting facilities - Sorting and filtering data | 25 | |



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| 4. | PC Software – IV | 25 |
|----|--|----|
| | - What-if analysis and protection facility in spreadsheets | |
| | - Using pivot tables | |
| | - Applications of spreadsheets | |
| | - Introduction to presentation tools | |
| | - Creating a presentation | |
| | - Formatting slides | |
| | - Slide transition and adding special effects | |
| | - Inserting pictures, sound, charts | |

| Teaching- Learning Methodology | Blended learning approach incorporating and online /ICT-based teaching practices. | traditional classroom teaching |
|--------------------------------------|---|--------------------------------|
|--------------------------------------|---|--------------------------------|

| 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 | 70% | |

| Course Outcomes: Having completed this course, the learner will be able to | | |
|--|--|--|
| 1. | understand basics of computer systems and PC Software. | |
| 2. | understand features of word processing packages, spreadsheets, and presentation tools. | |

| Suggested References: | | |
|-----------------------|---|--|
| Sr. No. | References | |
| 1. | Manuals of PC software. | |
| 2. | Taxali R K : PC Software made simple for Windows, Tata McGraw-Hill Publishing Co. Ltd., 2000. | |



ANTEL WIND

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(Reaccredited with 'A' Grade by NAAC (CGPA 3.25) Syllabus with effect from the Academic Year 2021-2022

| Course Code | PS01CDCT52 | Title of the | Logical Organization of Computer | |
|---------------|------------|--------------|----------------------------------|--|
| | | Course | | |
| Total Credits | 4 | Hours per | 4 | |
| of the Course | | Week | | |

| Course Objectives: | To introduce students to • fundamental concepts of a computer system, and number systems. |
|-----------------------|--|
| | basics of gates, Boolean Algebra and digital logic circuits. |

| Cours | Course Content | | | |
|-------|---|------------|--|--|
| Unit | Description | Weightage* | | |
| 1. | Introduction - Block Diagram of Computer, - Significance of different functional units - Hardware and Software - Application of Computer | 25 | | |
| 2. | Number System - Introduction to Number System & Conversion - Binary - Octal - Decimal - Hexadecimal - Binary Addition and Subtraction | 25 | | |
| 3. | Gates and Boolean Algebra - Gate Definition - NOT Gate - OR Gate - AND Gate - NOR Gate - NAND Gate - X- OR Gate - X- OR Gate - Truth tables Test | 25 | | |





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| 4. | Basic Digital Logic Circuit | 25 |
|----|-----------------------------|----|
| | - Encoders (8 * 3 line) | |
| | - Decoder (3 * 8 line) | |
| | - Half Adder & Full Adder | |
| | - Multiplexer | |

| Teaching- |
|-------------|
| Learning |
| Methodology |

Blended learning approach incorporating traditional classroom teaching and online /ICT-based teaching practices.

| 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 | 70% |

| Co | Course Outcomes: Having completed this course, the learner will be able to | | |
|--|--|--|--|
| 1. Understand fundamental concepts of a computer system, and number systems. | | | |
| 2. Understand basics of gates, Boolean Algebra and digital logic circuits. | | | |

| Suggested References: | | |
|-----------------------|--|--|
| Sr. No. | References | |
| 1. | Tanenbaum A.S: Structured Computer Organization, Prentice-Hall of India Pvt Ltd 5 th Edition. | |
| 2. | Rajaraman V: Computer Fundamentals, Prentice-Hall of India Pvt Ltd (4 th Edition). | |
| 3. | Computer Fundamentals 4th Edition P.K. Sinha, Priti Sinha. | |
| 4. | Malvino A. P.: Digital Computer Electronics, 3rd Edition, Tata McGraw - Hill Pub. Co. Ltd., New Delhi, 1990. | |



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| Course Code | PS01CDCT53 | Title of the | Accountancy-I |
|---------------|------------|--------------|---------------|
| | | Course | |
| Total Credits | 4 | Hours per | 4 |
| of the Course | | Week | |

| Course | To introduce students to | |
|-------------|---|--|
| Objectives: | fundamentals of Accounting and its cycle. | |
| | basic knowledge of working with Tally and its features. | |

| Course Content | | |
|----------------|---|------------|
| Unit | Description | Weightage* |
| 1. | Conceptual Framework Meaning, objectives, scope and areas of Accounting Types of Business Transaction and Classification of Accounts & Rules of Debit Credit Some important Accounting Terminologies: Assets, Liabilities, Capital, expenses, Expenditure, Debtors, Creditors, Goods, Cost, Gain, Stock, Purchase, Sales, Loss, Profit, Voucher, Discount, Transaction, Drawing, Depreciation, Reserves and Provisions General Accounting Principles, Concepts and Conventions | 25 |
| 2. | Accounting Cycle Introduction of journal, subsidiary books and Ledgers Examples on recording transactions into journal, Posting into Ledgers, Balancing and preparation of Trial Balance Preparation of Trading Account, Profit and Loss Account and Balance sheet by considering following adjustments Interest of Capital and Loan, Outstanding Expenses, Prepaid Expenses, Perceived Income, Depreciation | 25 |
| 3. | Overview of Tally Features and getting Functional with Tally - Features of Tally - Accounting and Inventory Features - Features pertaining to Duties and Taxes - Tally's capability for a trading organization - Creation of Company - Features - Alteration of Company | 25 |





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| | Configure Voucher Configuration Recording Transaction of Simple Data Transactions | |
|----|--|----|
| 4. | Display and Reports Generation - Accounting and Inventory reports in Tally - Accounting Reports - Balance Sheet - Profit and Loss Account - Account Books - Statements of Account - Age wise Analysis - Statutory Masters - Statutory Reports - Day Book - Exception Reports - Inventory Reports - Point of Sales - Creating Voucher Type - Printing Reports | 25 |

| _ | Blended learning approach incorporating | traditional classroom teaching |
|-------------|---|--------------------------------|
| Learning | and online /ICT-based teaching practices. | |
| Methodology | | |

| Evalu | 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 | 70% | |

| Cou | Course Outcomes: Having completed this course, the learner will be able to | | |
|-----|--|--|--|
| 1. | Understand fundamentals of Accounting and its cycle. | | |
| 2. | Understand basic knowledge of working with Tally and its features. | | |





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| Suggested References: | | |
|-----------------------|--|--|
| Sr. No. | References | |
| 1. | Advanced Accountancy –1 - By. S.N. Maheshwari | |
| 2. | Fundamental of Financial Accounting – Sehgal Ashok and Sehgal Deepak | |
| 3. | Advanced Accountancy – Tulsiam | |
| 4. | Advanced Accountancy – 1- Gupta Radhaswamy. | |
| 5. | Principles and Practices of Accounting – R.L.Gupta and V.K. Gupta. | |
| 6. | Advanced Accountancy – Jain S.P and Narang K.L. | |
| 7. | Financial Accounting – Khanka S.S. | |
| 8. | Financial Accounting – Narayanaswamy | |



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| Course Code | PS01CDCT53 | Title of the | Accountancy-I |
|---------------|------------|--------------|---------------|
| | | Course | |
| Total Credits | 4 | Hours per | 4 |
| of the Course | | Week | |

| Course | To introduce students to | |
|-------------|---|--|
| Objectives: | fundamentals of Accounting and its cycle. | |
| | basic knowledge of working with Tally and its features. | |

| Course Content | | | | |
|----------------|---|------------|--|--|
| Unit | Description | Weightage* | | |
| 1. | Conceptual Framework Meaning, objectives, scope and areas of Accounting Types of Business Transaction and Classification of Accounts & Rules of Debit Credit Some important Accounting Terminologies: Assets, Liabilities, Capital, expenses, Expenditure, Debtors, Creditors, Goods, Cost, Gain, Stock, Purchase, Sales, Loss, Profit, Voucher, Discount, Transaction, Drawing, Depreciation, Reserves and Provisions General Accounting Principles, Concepts and Conventions | 25 | | |
| 2. | Accounting Cycle Introduction of journal, subsidiary books and Ledgers Examples on recording transactions into journal, Posting into Ledgers, Balancing and preparation of Trial Balance Preparation of Trading Account, Profit and Loss Account and Balance sheet by considering following adjustments Interest of Capital and Loan, Outstanding Expenses, Prepaid Expenses, Perceived Income, Depreciation | 25 | | |
| 3. | Overview of Tally Features and getting Functional with Tally - Features of Tally - Accounting and Inventory Features - Features pertaining to Duties and Taxes - Tally's capability for a trading organization - Creation of Company - Features - Alteration of Company | 25 | | |





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| | Configure Voucher Configuration Recording Transaction of Simple Data Transactions | |
|----|--|----|
| 4. | Display and Reports Generation - Accounting and Inventory reports in Tally - Accounting Reports - Balance Sheet - Profit and Loss Account - Account Books - Statements of Account - Age wise Analysis - Statutory Masters - Statutory Reports - Day Book - Exception Reports - Inventory Reports - Point of Sales - Creating Voucher Type - Printing Reports | 25 |

| _ | Blended learning approach incorporating | traditional classroom teaching |
|-------------|---|--------------------------------|
| Learning | and online /ICT-based teaching practices. | |
| Methodology | | |

| Evalu | 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 | 70% | | |

| Cou | Course Outcomes: Having completed this course, the learner will be able to | | |
|-----|--|--|--|
| 1. | Understand fundamentals of Accounting and its cycle. | | |
| 2. | Understand basic knowledge of working with Tally and its features. | | |





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| Sugge | ested References: | |
|------------|--|--|
| Sr. No. | References | |
| 1. | Advanced Accountancy –1 - By. S.N. Maheshwari | |
| 2. | Fundamental of Financial Accounting – Sehgal Ashok and Sehgal Deepak | |
| 3. | Advanced Accountancy – Tulsiam | |
| 4. | Advanced Accountancy – 1- Gupta Radhaswamy. | |
| 5. | Principles and Practices of Accounting – R.L.Gupta and V.K. Gupta. | |
| 6. | Advanced Accountancy – Jain S.P and Narang K.L. | |
| 7. | Financial Accounting – Khanka S.S. | |
| 8. | Financial Accounting – Narayanaswamy | |



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| Course Code | PS01EDCT51 | Title of the | Internet Technology |
|---------------|------------|--------------|---------------------|
| | | Course | |
| Total Credits | 3 | Hours per | 3 |
| of the Course | | Week | |

| Course Objectives: | 1. To introduce students to fundamental concepts related to the Internet and the World Wide Web (WWW). | |
|-----------------------|--|--|
| - | To learn the basics of Internet surfing and Internet Threats. | |

| Cours | Course Content | | | | |
|-------|---|------------|--|--|--|
| Unit | Description | Weightage* | | | |
| 1. | Introduction to Internet - Introduction and History of internet - Advantage and Disadvantage of Internet - Application of internet - WWW, HTTP | 25 | | | |
| 2. | Introduction to Internet Technology Internet connections, Dial Up connection Direct Connection & Broad Band Connection, Wireless Connection Internet Address, URL, ISP, Intranet, Extranet VPN,1G-2G-3G networks | 25 | | | |
| 3. | Introduction to Internet Surfing - Browser Basics - Basic Communications on the Internet: E-Mail - Searching the Web - Information Resources on the Web - Downloading and Storing Data - Electronic Commerce - definition & Classification of EC by the nature of Transaction | 25 | | | |
| 4. | Internet Threats - History Of worms And Virus - Computer Virus & Symptoms of computer virus - Spam, Add ware, Malware, Spy ware - Protecting Computer from virus | 25 | | | |





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| Č | Blended learning approach incorporating and online /ICT-based teaching practices. | traditional | classroom | teaching |
|-------------|---|-------------|-----------|----------|
| Methodology | | | | |

| Evalu | 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 | 70% | |

| Cou | Course Outcomes: Having completed this course, the learner will be able to | | |
|-----|---|--|--|
| 1. | Understand the fundamental concepts related to the Internet and the World Wide Web (WWW). | | |
| 2. | Understand discuss the basics of Internet surfing and Internet Threats. | | |

| Sugge | Suggested References: | | |
|------------|---|--|--|
| Sr. No. | References | | |
| 1. | The Internet Book by Douglas E.Comer (PHI Publication). | | |
| 2. | Internet And Introduction, CIStens School of computing (TMH Publication). | | |
| 3. | Internet Complete by Manish Jain (BPB publication). | | |



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| Course Code | PS01EDCT52 | Title of the | RDBMS for Small Scale Organization | |
|---------------|------------|--------------|------------------------------------|--|
| | | Course | | |
| Total Credits | 3 | Hours per | 3 | |
| of the Course | | Week | | |

| Course Objectives: | To introduce students to basics of Relational Database Management Systems (RDBMS). fundamentals of working with Data Operations and its relationships. fundamentals of working with queries, forms and reports. | |
|-----------------------|--|--|
| | basics of data import, export, security and database utilities. | |

| Cours | Course Content | | | |
|-------|--|------------|--|--|
| Unit | Description | Weightage* | | |
| 1. | Introduction to the RDBMS Package - RDBMS for small scale organizations - Introduction and applications - Working with menus, toolbars and other components - Working with databases – creation and saving - Creating a table object | 25 | | |
| 2. | Working with Data Operations and Establishing Relationships Inserting data into tables Operations on data – adding, deleting, editing, sorting, etc. Creating a primary key Creating Relationship between tables | 25 | | |
| 3. | Working with Queries, Forms and Reports Working with Query – creation, editing, saving, specifying criteria, multiple- table queries, different types of queries Using forms and reports – creating, modifying, saving, etc. Using AutoForm, AutoReport | 25 | | |
| 4. | Using Miscellaneous Features - Creating mailing labels and charts - Data Import and Export facility - Database security - Database utilities - Overview of macros and modules | 25 | | |





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| Teaching- | Blended learning approach incorporating | traditional classroom teaching |
|-------------|---|--------------------------------|
| Learning | and online /ICT-based teaching practices. | |
| Methodology | | |

| Evalu | 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 | 70% | |

| Cou | Course Outcomes: Having completed this course, the learner will be able to | | |
|-----|--|--|--|
| 1. | Understand basics of Relational DataBase Management Systems (RDBMS). | | |
| 2. | Understand fundamentals of working with Data Operations and its relationships. | | |
| 3. | Understand fundamentals of working with queries, forms and reports. | | |
| 4. | Understand basics of data import, export, security and database utilities. | | |

| Sugges | Suggested References: | | |
|------------|---|--|--|
| Sr. No. | References | | |
| 1. | Virginia Andersen: Microsoft Office Access 2003: The complete reference, McGraw Hill, 2003. | | |
| 2. | Progue, Irwin, Roardon: Microsoft Office Access 2003 Bible, Wiley Publishing Inc., 2004. | | |
| 3. | Manuals of relevant software packages. | | |



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| Course Code | PS01FDCT55 | Title of the Course | Operating Systems |
|---------------|------------|------------------------|-------------------|
| Total Credits | 4 | Hours per | 4 |
| of the Course | | Week | |

| Course Objectives: | To introduce students to • computer fundamentals | |
|-----------------------|--|--|
| | features of word processing, presentation tool and spreadsheets. | |

| Course Content | | |
|----------------|--|------------|
| Unit | Description | Weightage* |
| 1. | Introduction to Operating System Introduction Function of OS Different types of OS: Real time, Multi-user and Time Sharing OS Structure: Monolithic, Layered Approach, Virtual Machine and client-server | 25 |
| 2. | Introduction to Process Introduction Process State Process Control Block Process Scheduling Criteria Scheduling Algorithm: FCFS Scheduling, SJF Scheduling, Priority Base Scheduling and Round Robin Scheduling File Organization and accessing techniques: Indirect, Line, Sequential, and Hashed | 25 |
| 3. | Memory Management - Concept: Basic Memory Management - Swapping - Memory Allocation Techniques - Fragmentation - Compaction - Virtual Memory System - Demand Paging - Page Replacement Algorithms: Overview - Deadlock and Characterization | 25 |



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| 4. | UNIX Operating System | 25 |
|----|---|----|
| | - Introduction | |
| | - Evolution of UNIX OS | |
| | - Features & Structure of UNIX OS | |
| | - Difference from Other OS. | |
| | - Fundamental concepts of Unix System security, Login, file | |
| | permissions, Home directory, and Super user | |
| | - Login/Logout .Unix files system, Special files, Hierarchical file | |
| | system, use of special files | |
| | - Introduction to V I Editor. Basic commands of UNIX. | |

| Teaching- |
|-------------|
| Learning |
| Methodology |

Blended learning approach incorporating traditional classroom teaching and online /ICT-based teaching practices.

| 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 | 70% |

| Course Outcomes: Having completed this course, the learner will be able to | |
|--|--|
| 1. | understand the fundamental concepts related to operating systems. |
| 2. | understand basic concepts related to process management and memory management. |
| 3. | understand basics of the UNIX operating system. |

| Suggested References: | |
|-----------------------|---|
| Sr. No. | References |
| 1. | Andrew S. Tanenbaum: Operating System Design & Implementation, Prentice Hall International. |
| 2. | James Peterson and Abraham Silberschatz: Operating System Concept, Addition |





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| | Wesley, Sixth Edition. |
|----|---|
| 3. | Operating systems - Colin Ritchie (BPB). |
| 4. | Concepts of operating Systems incorporating UNIX & WINDOWS - D. M. Dhamdhere. |
| 5. | A User Guide to the UNIX system - Dr. Rebecca Thomas , Jeans Yates (TMH). |

