

# BUDHA DAL PUBLIC SCHOOL, PATIALA

LESSON PLAN OF CLASS X (SUBJECT: INFORMATION TECHNOLOGY 402)

## Term -I & Final Exams Syllabus (Session 2024-25)

### Term -I

#### Part-A Employability Skills

Unit-I (Communication Skills-II)

Unit-II(Self-Management Skills-II)

Unit-III (Information & Communication Technology Skills-II)

#### Part- B Subject Specific Skills

Unit-I (Digital Documentation (Advanced))

Unit-II (Electronic Spreadsheet(Advanced))

### Term -II

#### Part-A Employability Skills

Unit-IV (Entrepreneurial Skills-II)

Unit-V (Green Skills-II)

#### Part-B Subject Specific Skills

Unit- III Database Management System

Unit-IV (Web Application & Security)

### Month Wise Distribution

#### April

#### Part-A Employability Skills

Unit-I (Communication Skills-II)

#### Part-B Subject Specific Skills

Unit-I (Digital Documentation (Advanced))

## May

### Part-A Employability Skills

Unit-II(Self-Management Skills-II)

### Part-B Subject Specific Skills

Unit-II (Electronic Spreadsheet(Advanced))

## July

### Part-B Subject Specific Skills

Unit-II (Electronic Spreadsheet(Advanced))Continue ..

## August

### Part-A Employability Skills

Unit-III (Information & Communication Technology Skills-II)

Unit-IV (Entrepreneurial Skills-II)

### Part-B Subject Specific Skills

Unit-IV (Web Application & Security)

## September

Term-I Exams

## October

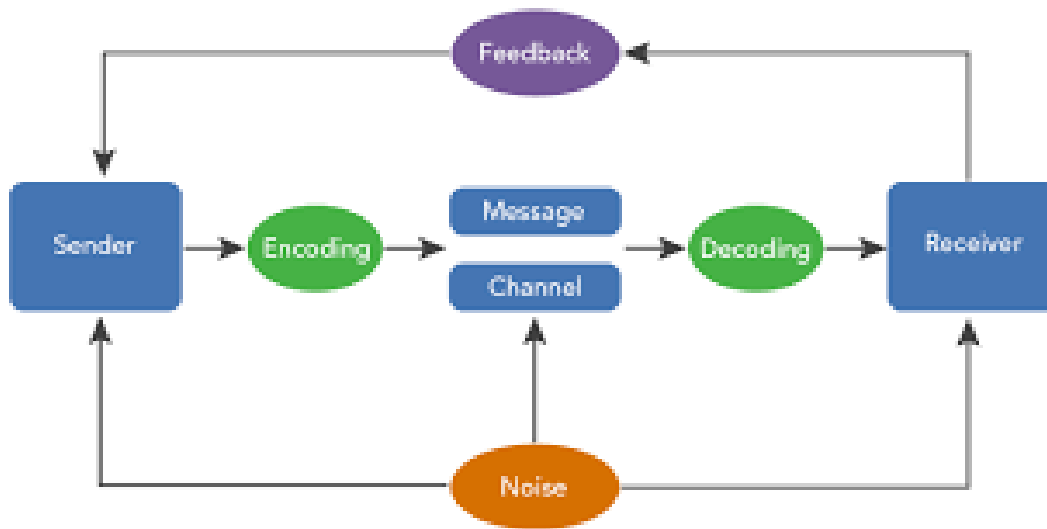
### Part-A Employability Skills

Unit-V (Green Skills-II)

### Part-B Subject Specific Skills

Unit- III Database Management System

## April – Part A: Employability Skills Unit-I (Communication Skills-II)



### Part B: Subject Specific Skills Unit-I (Digital Documentation - Advanced)

#### Lesson Plan: Part A - Employability Skills Unit-I (Communication Skills-II)

- **Topics:**

- Advanced Communication Techniques
- Interpersonal Skills
- Presentation Skills
- Negotiation and Conflict Resolution
- Cross-Cultural Communication

- **Learning Objectives:**

- Master advanced communication techniques.
- Develop strong interpersonal skills.
- Enhance presentation, negotiation, and conflict resolution skills.
- Understand cross-cultural communication dynamics.

- **Art & Integrated Activity/Project/Practical:**

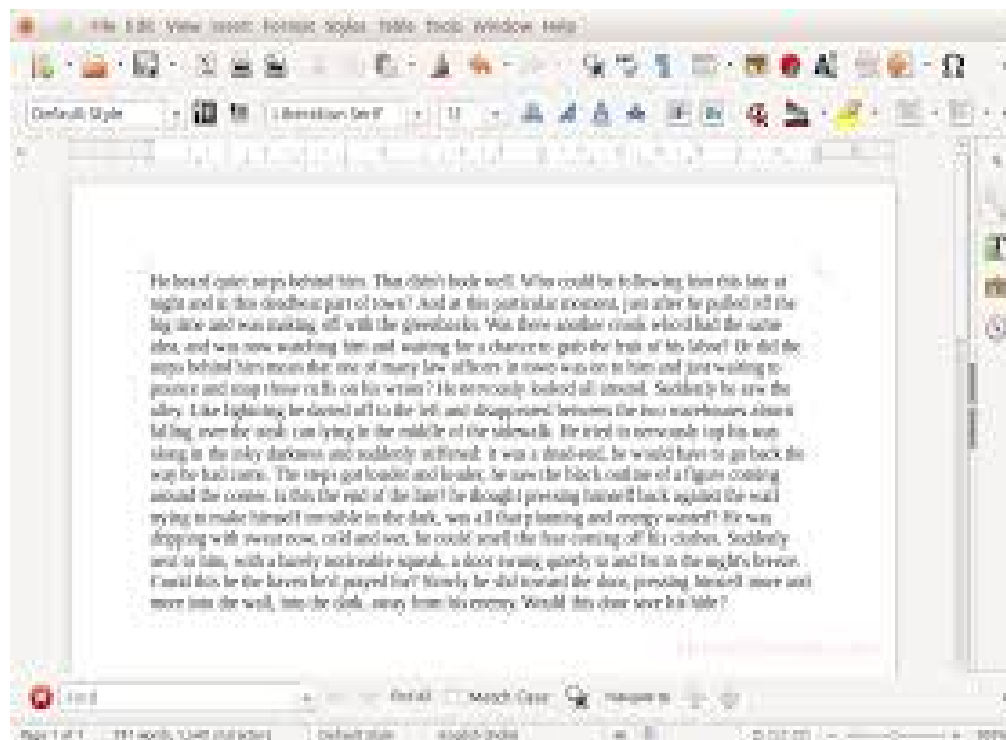
- Role-playing exercises for negotiation and conflict resolution.
- Group presentations on advanced communication topics.
- Case studies on cross-cultural communication challenges.
- Mock negotiations and presentations.

- **Expected Learning Outcomes:**

- Students will master advanced communication techniques.

- They will develop strong interpersonal and presentation skills.
- Students will effectively negotiate and resolve conflicts.
- They will understand and navigate cross-cultural communication.
- **Assignment and Assessments/Test:**
  - Assignments on advanced communication skills and techniques.
  - Quizzes on interpersonal skills and negotiation strategies.
  - Practical tests on presentations and cross-cultural scenarios.
- **Remedial Measures:**
  - Extra practice sessions and role-playing scenarios.
  - Video tutorials on advanced communication topics.
  - Personalized feedback and coaching on specific challenges.

## Lesson Plan: Part B - Subject Specific Skills Unit-I (Digital Documentation - Advanced)



- **Topics:**
  - Advanced Document Formatting and Styles
  - Collaborative Editing and Reviewing
  - Automation in Document Creation
  - Advanced Data Integration and Charts
  - Document Security and Permissions
- **Learning Objectives:**

- Master advanced document formatting techniques and styles.
- Learn collaborative editing and reviewing processes.
- Automate document creation using advanced tools.
- Integrate data and create advanced charts in documents.
- Understand document security measures and permissions.
- **Art & Integrated Activity/Project/Practical:**
  - Hands-on projects on advanced document formatting and styles.
  - Collaborative editing exercises with version control.
  - Automation projects using macros and templates.
  - Data integration and advanced chart creation tasks.
- **Expected Learning Outcomes:**
  - Students will master advanced document formatting and styles.
  - They will effectively collaborate on document editing and reviewing.
  - Students will automate document creation processes.
  - They will integrate data and create advanced charts in documents.
  - Students will understand document security measures.
- **Assignment and Assessments/Test:**
  - Assignments on advanced document creation and formatting.
  - Quizzes on collaborative editing and data integration.
  - Practical tests on automation and document security.
- **Remedial Measures:**
  - Extra practice sessions and step-by-step guides on advanced document tools.
  - Video tutorials on collaborative editing and data integration.
  - Personalized feedback and one-on-one assistance for specific challenges.

## May – Part A: Employability Skills Unit-II (Self-Management Skills-II)

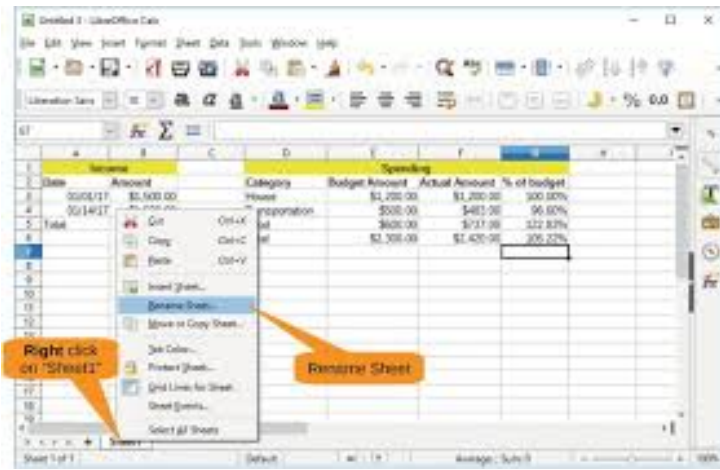


## **Part B: Subject Specific Skills Unit-II (Electronic Spreadsheet - Advanced)**

### **Lesson Plan: Part A - Employability Skills Unit-II (Self-Management Skills-II)**

- **Topics:**
  - Advanced Goal Setting and Time Management Techniques
  - Stress and Emotional Management
  - Leadership Skills Development
  - Decision Making and Problem Solving
  - Personal Development Planning
- **Learning Objectives:**
  - Master advanced techniques in goal setting and time management.
  - Develop stress and emotional management strategies.
  - Enhance leadership skills and decision-making abilities.
  - Plan for personal development and career growth.
- **Art & Integrated Activity/Project/Practical:**
  - Goal setting workshops with advanced techniques.
  - Stress management exercises and emotional intelligence assessments.
  - Leadership role-playing and problem-solving scenarios.
  - Personal development planning and career mapping activities.
- **Expected Learning Outcomes:**
  - Students will master advanced goal setting and time management techniques.
  - They will develop effective stress and emotional management strategies.
  - Students will enhance leadership skills and decision-making abilities.
  - They will plan for personal development and career growth effectively.
- **Assignment and Assessments/Test:**
  - Assignments on advanced goal setting and leadership skills.
  - Quizzes on stress management and decision-making processes.
  - Practical tests on personal development planning.
- **Remedial Measures:**
  - Extra practice sessions and workshops on advanced self-management techniques.
  - Video tutorials on leadership development and emotional intelligence.
  - Personalized coaching and feedback for improvement.

### **Lesson Plan: Part B - Subject Specific Skills Unit-II (Electronic Spreadsheet - Advanced)**



- **Topics:**

- Advanced Spreadsheet Functions and Formulas
- Data Analysis with PivotTables and Power Query
- Advanced Charting and Graphical Representations
- Spreadsheet Automation and Macros
- Collaboration and Version Control

- **Learning Objectives:**

- Master advanced functions and formulas in spreadsheets.
- Analyze data using PivotTables and Power Query.
- Create advanced charts and graphical representations.
- Automate tasks using macros and advanced spreadsheet tools.
- Understand collaboration features and version control in spreadsheets.

- **Art & Integrated Activity/Project/Practical:**

- Projects on advanced spreadsheet functions and data analysis.
- Data visualization tasks using advanced charts and graphs.
- Automation projects with macros and advanced tools.
- Collaborative editing and version control exercises.

- **Expected Learning Outcomes:**

- Students will master advanced functions and formulas in spreadsheets.
- They will analyze data effectively using PivotTables and Power Query.
- Students will create advanced charts and graphical representations.
- They will automate tasks using macros and advanced tools.
- Students will understand collaboration features and version control.

- **Assignment and Assessments/Test:**

- Assignments on advanced spreadsheet functions and data analysis.

- Quizzes on PivotTables, macros, and collaboration features.
- Practical tests on creating advanced charts and automating tasks.
- **Remedial Measures:**
  - Extra practice sessions and step-by-step guides on advanced spreadsheet tools.
  - Video tutorials on PivotTables, macros, and data visualization.
  - Personalized feedback and one-on-one assistance for specific challenges.

## **July – Part B: Subject Specific Skills Unit-II (Electronic Spreadsheet - Advanced) Continued**

### **Lesson Plan: Part B - Subject Specific Skills Unit-II (Electronic Spreadsheet - Advanced) Continued**

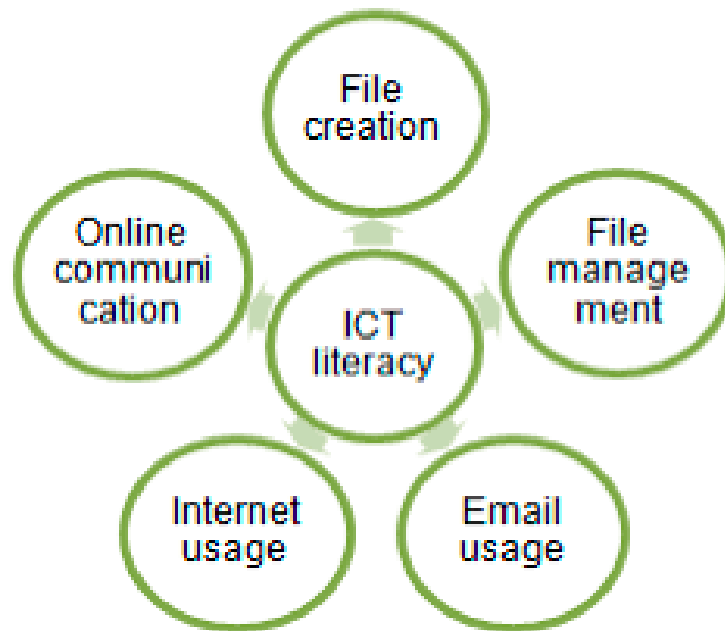
- **Topics:**
  - Advanced Data Validation and Conditional Formatting
  - Scenario Analysis and What-If Analysis
  - Database Integration and External Data Connections
  - Advanced Functions for Financial Modeling
  - Security and Protection in Spreadsheets
- **Learning Objectives:**
  - Master advanced data validation and conditional formatting techniques.
  - Conduct scenario and what-if analysis using spreadsheets.
  - Integrate databases and external data connections.
  - Use advanced functions for financial modeling and analysis.
  - Implement security measures and protection in spreadsheets.
- **Art & Integrated Activity/Project/Practical:**
  - Projects on advanced data validation and scenario analysis.
  - Integration tasks with databases and external data sources.
  - Financial modeling exercises using advanced functions.
  - Security and protection simulations in spreadsheet environments.
- **Expected Learning Outcomes:**
  - Students will master advanced techniques in data validation and formatting.
  - They will conduct thorough scenario and what-if analyses.
  - Students will integrate databases and external data effectively.
  - They will use advanced functions for financial modeling.
  - Students will implement security measures in spreadsheet environments.



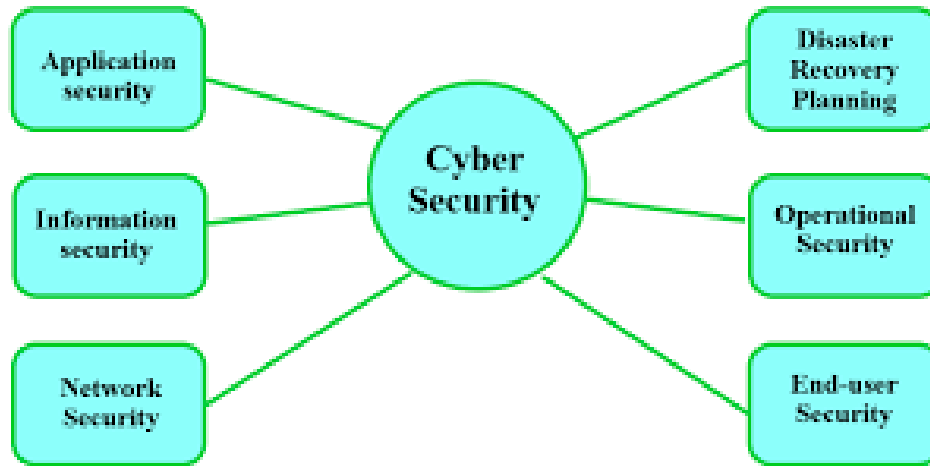
- **Assignment and Assessments/Test:**
  - Assignments on data validation, scenario analysis, and financial modeling.
  - Quizzes on database integration and security measures.
  - Practical tests on scenario analysis and data integration.
- **Remedial Measures:**
  - Extra practice sessions and simulations on advanced spreadsheet techniques.
  - Video tutorials on scenario analysis and database integration.
  - Personalized feedback and one-on-one assistance for specific challenges.

## August Lesson Plan Class 10<sup>th</sup> (Two Chapters in This Month)

### Part-A Unit III: Information & Communication Technology Skills II



### Part-B Unit IV: Web Application & Security



### **Topics (Part-A Unit III)**

- Computer Operations
- Security and Privacy

### **Topics(Part-B Unit IV)**

- Maintain Workplace Safety
- Prevent Accidents and Emergencies
- Protect Health and Safety at Work

### **Learning Objectives (Part-A Unit III)**

- Students will Understand fundamental computer operations and perform basic tasks effectively.
- Learn essential file operations such as creating, managing, and organizing files and folders.

### **Learning Objectives(Part-B Unit IV):**

- Students will Understand principles of workplace safety and emergency preparedness.
- Learn to prevent accidents and respond effectively to emergencies.
- Develop awareness of health hazards in the workplace and methods to mitigate risks.

### **Project & Practical(Part-A Unit III):**

- Students will engage in practical activities - file operations such as creating, renaming, copying, moving, and deleting files and folders.

- Learning about security measures such as setting strong passwords, recognizing phishing attempts, and using antivirus software.

#### **Project & Practical(Part-B Unit IV ):**

- Students will participate in practical activities including: Simulating workplace safety scenarios and identifying potential hazards.
- Creating emergency response plans for different workplace situations.
- Discussing health and safety measures related to ergonomics, environmental factors, and personal well-being.

#### **Expected Learning Outcomes(Part-A Unit III ):**

- By the end of chapter students will demonstrate proficiency in essential computer operations and file management techniques.
- Understand the importance of privacy and security measures in ICT.

#### **Expected Learning Outcomes(Part-B Unit IV ):**

- By the end of Unit IV, students will demonstrate knowledge of workplace safety protocols and emergency procedures.
- Apply preventive measures to minimize accidents and ensure safety at work.
- Understand the importance of health protection in maintaining a safe and productive work environment.

#### **Assessment & Test(Part-A Unit III ):**

- Quizzes on computer operations and file management.
- Practical tests evaluating maintenance tasks and security practices.

#### **Assessment & Test(Part-B Unit IV ):**

- Quizzes on workplace safety regulations and emergency protocols.
- Practical tests evaluating application of safety measures in simulated scenarios.

#### **Remedial Measures(Part-A Unit III ):**

- Additional practice sessions on specific topics like file management or security.
- Personalized assistance and feedback to address individual learning needs.

## **Remedial Measures(Part-B Unit IV):**

- Review sessions focusing on specific safety protocols and emergency responses.
- Guidance from instructors to address individual concerns related to health and safety at work.

## **September**

Term-I Exams

## **October – Part A: Employability Skills Unit-V (Green Skills-II)**



## **Part B: Subject Specific Skills Unit-III (Database Management System)**

### **Lesson Plan: Part A - Employability Skills Unit-V (Green Skills-II)**

- **Topics:**
  - Advanced Green Technologies
  - Sustainable Development Practices
  - Green Energy Solutions
  - Environmental Policy and Regulations
  - Green Marketing and Consumer Awareness
- **Learning Objectives:**
  - Master advanced green technologies and sustainable practices.
  - Understand green energy solutions and their implementation.
  - Analyze environmental policies and regulatory frameworks.
  - Learn green marketing strategies and promote consumer awareness.
- **Art & Integrated Activity/Project/Practical:**

- Projects on implementing green technologies in practical scenarios.
- Case studies on sustainable development and green energy projects.
- Simulations on environmental policy formulation and compliance.
- Green marketing campaigns and consumer awareness projects.
- **Expected Learning Outcomes:**
  - Students will master advanced green technologies and sustainable practices.
  - They will understand green energy solutions and their applications.
  - Students will analyze environmental policies and regulatory frameworks.
  - They will develop green marketing strategies and promote consumer awareness.
- **Assignment and Assessments/Test:**
  - Assignments on green technologies, sustainable development, and policies.
  - Quizzes on green energy solutions and environmental regulations.
  - Practical tests on green marketing strategies and consumer awareness.
- **Remedial Measures:**
  - Extra practice sessions and hands-on projects on green technologies.
  - Video tutorials on sustainable development and green marketing.
  - Personalized feedback and one-on-one assistance for specific challenges.

### **Lesson Plan: Part B - Subject Specific Skills Unit-III (Database Management System)**

- **Topics:**
  - Advanced Database Design and Architecture
  - Data Modeling and Normalization
  - Query Optimization and Performance Tuning
  - Transaction Management and Concurrency Control
  - Database Security and Backup Strategies
- **Learning Objectives:**
  - Master advanced database design principles and architecture.
  - Implement data modeling techniques and normalization processes.
  - Optimize queries and tune database performance.
  - Manage transactions and control concurrency effectively.
  - Implement database security measures and backup strategies.
- **Art & Integrated Activity/Project/Practical:**
  - Database design projects with advanced architecture considerations.
  - Data modeling exercises and normalization simulations.

- Query optimization tasks and performance tuning labs.
- Transaction management and concurrency control simulations.
- **Expected Learning Outcomes:**
  - Students will master advanced database design principles and architecture.
  - They will implement effective data modeling and normalization techniques.
  - Students will optimize queries and tune database performance efficiently.
  - They will manage transactions and control concurrency effectively.
  - Students will implement database security measures and backup strategies.
- **Assignment and Assessments/Test:**
  - Assignments on database design, query optimization, and security strategies.
  - Quizzes on data modeling, transaction management, and concurrency control.
  - Practical tests on database performance tuning and backup strategies.
- **Remedial Measures:**
  - Extra practice sessions and hands-on labs on advanced database topics.
  - Video tutorials on query optimization and transaction management.
  - Personalized feedback and one-on-one assistance for specific challenges.

## **November**

Revision

## **December**

Term – 2 Examinations

## **January**

Pre – Board Examination