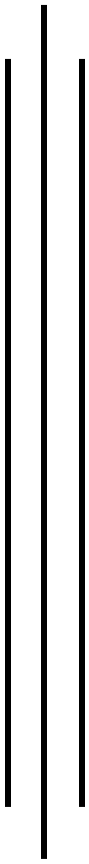
SYLLABUS
FOR
POST GRADUATE DIPLOMA IN COMPUTER APPLICATION
(1 YEAR DURATION)



INSTITUTE OF COOPERATIVE MANAGEMENT
COOPERATIVE COMPLEX, LAMPHELPAT
IMPHAL, MANIPUR
PIN - 795004

FIRST SEMESTER
Computer Graphics & Multimedia

Outline of Syllabus:

		Minimum number of hours
1	*Introduction to Computer Graphics*	3
2	*Graphic I/O Devices*	3
3	*Graphic Output primitives*	3
4	*2D Graphics*	4
5	*Concept of Multimedia and GKS*	3
6	*Web Graphics*	8
7	*Animation*	4
8	*Multimedia Tools*	7

1. Introduction to Computer Graphics
1.1 Applications
1.1.1 Presentation graphics, education and training, entertainment
1.1.2 CAD for : architecture, mechanical engineering, aeronautical and automobile Industry
1.1.3 Other areas : simulation, animation, video games

2 Graphic I/O Devices
2.1 Display systems
2.1.1 Raster scan displays : refresh CRT, gray shades, look up tables, interlacing
2.1.2 Colour monitors : RGB, shadow masks, look up tables
2.1.3 Flat panel displays : plasma panels, liquid crystal displays
2.1.4 VGA, SVGA resolutions
2.2 Input devices
2.2.1 Digitizing tablets : electromagnetic, electrical, acoustic types
2.2.2 Mouse : mechanical and optical track ball, data gloves, light pen
2.2.3 Touch panels : optical, capacitive, conic types.
2.2.4 Image Scanners : types, typical resolutions, sizes, output formats available

3. *Graphic Output primitives*
Graphics Systems -Representing pictures in Computer graphics
Points and Lines, Point plotting, line drawing, filling,

3. 2D Graphics
2 Dimensional Geometric Transformations: Translation, Rotation and, Scaling; Matrix representation and Homogeneous coordinates, Composite , Reflections and shear , Boundary Fill Algorithm- Flood Fill algorithm- Fill Area Functions-Character Generation, 2 Dimensional Viewing pipeline , Viewing coordinate reference frame , Window to view port coordinate transformation , Line clipping concept , Polygon clipping concept, 3D Graphics introduction

4. .Concept of Multimedia and GKS
Introduction, Concepts of hypertext/hypermedia , Multimedia application, Multimedia hardware , MIDI, Images: bit maps, windows paint brush , Languages of sound: digital sound, playing MIDI files, generating sound , Currently available multimedia software, Introduction to

Multimedia System Architecture, Graphics Kernel System

5. Web Graphics

Text Editing, Image Editing : File Formats , Raster Graphics , Vector Graphics, Audio Editing : File Format (wav, midi, tracks etc.) , Audio Compression and Decompression, Video Editing : File Formats : Video Compression and Decompression

6. .Animation

Basics of Animation: Definition , Traditional Animation Techniques, Frame based Animation Techniques, Tweeking , Morphing, Computer Animation Tools : Hardware , Software ,Applications for Computer Animation

7. Multimedia Tools

Adobe Photoshop Toolbox , Creating new Images , Opening and Importing images , Color Modes : HSB Model , RGB Model , CMYK Model, Lasso : Polygon Lasso , Magnetic Lasso , Channels and Masks , Layers , Filters , Creating Special Effects , Creating Backgrounds , Saving Images , Importing Images , File Compression , File Formats , Introduction to Flash ,Introduction to GIF Animator

BOOKS RECOMMENDED FOR READING AND REFERENCE MAIN READING

1. DP Mukherjee, Fundamentals of Computer Graphics and Multimedia, PHI
2. D.F. Rogers, Procedural elements for Computer Graphics, McGraw Hill International Ed., 1986
3. Rogers & Adams, Mathematical Elements for Computer Graphics, McGraw Hill International Ed. 1990
4. D Hearn & P M Baker, Computer Graphics, Prentice Hall of India (2 nd Edition), 1996
5. Ian Sinclair, Multimedia on the PC, BPB Publication
6. Using Adobe Photoshop 5.0, Dan Giordan and Steve Moniz
7. Adobe Photoshop 6.0, Cary David Bouton, Barbara Bouton, Gary Kubicek, Mara Zebest Nathanson
8. Multimedia Sound & Video By Lozano,Jose
9. CFS Study Material
10. Flash 4 Web special Effects, Animation & Design Milburn,Ken, Croteau,John

FIRST SEMESTER
BUSINESS SYSTEMS

Time : 35 hrs

Outline of Syllabus:

		Minimum number of hours
1	Introduction to Business Data Processing	6
2	Business Files	3
3	Visual FoxPro	16
4	Business Applications	3
5	Implementations of Business applications	4
6	Overview of Business Functions	3

1. Introduction to Business data processing
   - 1.1 Overview of business systems
     - 1.1.1 Management functions
     - 1.1.1 Levels of management
     - 1.1.2 Information requirements for planning , coordination and control for various levels in business industry and Government.
   - 1.2 Profile of data in Business systems
     - 1.2.1 Large volumes of data and data handling implicit.
     - 1.2.2 Identification of relevant data
     - 1.2.3 Classification of data elements by function(Master,Transaction,Control,Security,Checking)and by source(Raw and Derived)
     - 1.2.4 Primary and Secondary
     - 1.2.5 Historical data for reference and analysis
     - 1.2.6 Need for ensuring accurate, reliable and timely processing of data
     - 1.2.7 Basic tasks in business data processing, data origination, capture sorting merging, calculating, summarizing, managing output-results, storing and retrieving transmission, both interim and final
     - 1.2.8 Examples of business data processing and applications, Payroll, Financial, Accounting, Inventory, etc.
   - 1.3 Computer System as a potent tool to meet business data processing needs, facilities available in computerized systems for:
     - 1.3.1 Data capture, online and offline
     - 1.3.2 Validation, storage, processing and output
     - 1.3.3 Transmission
   - 1.4 Case Study-Financial Accounting
2. Business Files
   - 2.1 Data Structure
     - 2.1.1 Elements, fields, records
     - 2.1.2 Fixed and variable lengths
     - 2.1.3 Record layout
     - 2.1.4 Data codes-alphabetic, alphanumeric, numeric

- 2.2 Files
  - 2.2.1 Contents of master file-Information of permanent and semi-permanent nature
  - 2.2.2 Transaction file and Transaction file organization
  - 2.2.3 Sequential, relative and indexed
  - 2.2.4 File creation and handling
  - 2.2.5 File identification – Header label (label record), generation number
  - 2.2.6 File security and data security-retention date, write permission, access control e.g. passwords
  - 2.2.7 Addition and deletion of records-updation
  - 2.2.8 Modes of processing; Batch, online and real-time
- 2.3 Backup for data security
  - 2.3.1 File corruption potential and data loss
  - 2.3.2 Three generations of back-up(grand father/father/son)
  - 2.3.3 Concepts for file recovery
- 2.4 Case study-Financial Accounting

3 Visual FoxPro

- 3.1 Intorduction to Visual Foxpro
  - 3.1.1 Introduction
  - 3.1.2 Fundamentals of Database Concept
  - 3.1.3 What is a Relational Dabase?
  - 3.1.4 Introducing Visual Foxpro 6.0
  - 3.1.5 Starting Visual Foxpro
  - 3.1.6 File Types
  - 3.1.7 The Toolbar
  - 3.1.8 Visual Design and Wizards
  - 3.1.9 Command Window and View Window
  - 3.1.10 Other Features of the Visual Foxpro
- 3.2 Tables in Visual FoxPro
  - 3.2.1 Table in Visual Foxpro
  - 3.2.2 Creating a New Table
  - 3.2.3 Creating Table using Table Designer
  - 3.2.4 Modifying a Table
  - 3.2.5 Opening a Table
  - 3.2.6 Appending Data
  - 3.2.7 Editing Data
  - 3.2.8 Moving through a Table
  - 3.2.9 Go to Record Command
  - 3.2.10 Find and Replace
  - 3.2.11 Deleting a Record
  - 3.2.12 Viewing the Table in Edit and Browse Modes
  - 3.2.13 The Table Wizard
  - 3.2.14 Quit Visual Foxpro
- 3.3 Using Queries
  - 3.3.1 Introduction
  - 3.3.2 Creating a Query
  - 3.3.3 Query Wizard

5 Implementation of Business Application
- 5.1 Controls
  - 5.1.1 Input-Output Control
  - 5.1.2 File Access control
  - 5.1.3 Process control
  - 5.1.4 Passwords and other security aspects
  - 5.1.5 Job Scheduling
  - 5.1.6 Computer log
- 5.2 Documentation
  - 5.2.1 Need and philosophy
  - 5.2.2 Updation of documentation
  - 5.2.3 Requests for change
  - 5.2.4 Monitoring and control
- 5.3 Management of computer resources
  - 5.3.1 Centralized traditional data processing department
  - 5.3.2 Emerging scene of distributed processing
    - 5.3.2.1 User involvement in identifying and organizing for its information needs
    - 5.3.2.2 Centralized management in respect of hardware, software, personnel, data bases, security and policy
- 5.4 System Audit
  - 5.4.1 Need and objective-protecting against risks of loss, corruption, fraud and sabotage in respect of hardware, software and data
  - 5.4.2 Audit approaches and methods-systems, financial, hardware, software, place in SDLC, testing methodologies.

6 Overview of business functions
- 6.1 Business functions in an organization
  - 6.1.1 Material management
  - 6.1.2 Scheduling
  - 6.1.3 Shop floor control
  - 6.1.4 Forecasting
  - 6.1.5 Accounting and finance
  - 6.1.6 Human Resources
  - 6.1.7 Productivity managements
- 6.2 Typical business processes
  - 6.2.1 Core processes
    - 6.2.1.1 Product control
    - 6.2.1.2 Sales order processing
    - 6.2.1.3 Purchases
  - 6.2.2 Administrative process
    - 6.2.2.1 Human resource
    - 6.2.2.2 Finance
  - 6.2.3 Support processes
    - 6.2.3.1 Marketing
    - 6.2.3.2 Strategic planning
    - 6.2.3.3 Research and development
- 6.3 Problem in traditional functional law

6.3.1 Need for integrated process view
6.3.2 'Information' as a resource
6.3.3 Motivation for ERP

BOOKS RECOMMENDED FOR READING AND REFERENCE

Main reading

1. V.K Kapoor, Introduction to Computer Data Processing & System Analysis, Sultan Chand
2. M.M Lipschutz, Theory and Problems of Data Processing, Scham Series
3. R.K Taxali, Visual Foxpro 6.0 Made simple for DOS & Windows, BPB Publications, 1996
4. V.K. Garg and N.K. Venkitakrishana, Enterprise Resource Planning : Concepts and Practival Prentice Hall (I), 1999, N. Delhi
5. J. Kanter, Managing with Information, Prentice Hall (I), 1996, N. Delhi
6. S. Sadagopan, Management Information Systems, Prentice Hall (I), 1997, N. Delhi
7. V Rajaraman, Analysis and Design of Information Systems, Prentice Hall (I), 1997, N. Delhi

Supplementary Reading

1. Griver, FoxPro 2.6 Code Book, BPB Publication, 1994
2. Siegel, Mastering FoxPro 2.6, BPB Publication, 1994

FIRST SEMESTER

PROGRAMMING IN C

Time : 35 hrs

Outline of Syllabus:

		Minimum number of hours
1	Overview of Programming	08
2	Fundamentals of C Programming	15
3	Dynamic Data Structure in C	06
4	Miscellaneous features	06

1. Overview of Programming
   - 1.1 Introduction to computer-based problem solving, requirement of problem solving by the computer
     - 1.1.1 Problem definition
     - 1.1.2 Use of examples for problem solving
     - 1.1.3 Similarities between problem
     - 1.1.4 Problem solving strategies
   - 1.2 Program design and implementation issues
     - 1.2.1 Programs and algorithms
     - 1.2.2 Top-down design and stepwise refinement
       - breaking a problem into sub-tasks
       - data organization or data structures
     - 1.2.3 Construction of loops-basic programming construct
       - establishing initial conditions
       - terminating conditions
     - 1.2.4 Implementation
       - use of procedures for modular design
       - choice of variable names
       - documentation of programs
       - program testing
   - 1.3 Programming Environment
     - 1.3.1 Programming language classification, machine language, assembly language, high level languages
     - 1.3.2 Assemblers
     - 1.3.3 Compilers
     - 1.3.4 Interpreters
   - 1.4 Programming Methodologies
     - 1.4.1 Procedural Approach
     - 1.4.2 Structural Approach
2. Fundamentals of C Programming
   - 2.1 Overview of C
     - 2.1.1 History of C
     - 2.1.2 Structure of a C program
   - 2.2 Data types
     - 2.2.1 Data types --- int, float, char, double, void
     - 2.2.2 Data structures

2.3 Constants and Variables
- 2.3.1 Variable declaration
  - integer, real, float, character, logical variables
  - string variables
- 2.3.2 Constants

2.4 Operators and Expressions
- 2.4.1 Arithmetic operators
- 2.4.2 Relational operators
- 2.4.3 Logical operators
- 2.4.4 Expressions

2.6 Control Constructs
- 2.6.1 if-then
- 2.6.2 for
- 2.6.3 while

2.6 Arrays
- 2.6.1 Array declaration
- 2.6.2 One and two dimensional arrays

2.7 Functions-Fundamentals
- 2.7.1 General Form
- 2.7.2 Function arguments
- 2.7.3 Return value

2.8 Basic I/O
- 2.8.1 Formatted Input/Output
- 2.8.2 Unformatted Input/Output

2.9 Program Design Examples
- 2.9.1 Summation of a set of numbers
- 2.9.2 Generation of fibonacci sequence
- 2.9.3 Generation of positive prime numbers
- 2.9.4 Finding k^{th} smallest element
- 2.9.6 Sorting by insertion

2.10 Advanced features
- 2.10.1 Type modifiers and storage class specifiers for data types
- 2.10.2 Bit operators. ?operator, & operator, * operator
- 2.10.3 Type casting, type conversion

3. Dynamic Data Structures in C

3.1 Pointers
- 3.1.1 The & and * operator
- 3.1.2 Pointer expression
- 3.1.3 Pointer assignments
- 3.1.4 Pointer arithmetic
- 3.1.5 Pointer comparison
- 3.1.6 The dynamic allocation functions-malloc and calloc
- 3.1.7 Pointer Vs Arrays
- 3.1.8 Arrays of pointers
- 3.1.9 Pointers to pointers
- 3.1.10 Initializing pointers
- 3.1.11 Pointer to functions

BOOKS RECOMMENDED FOR READING AND REFERENCE

Main Reading

1. B.W. Kernighan & D.M.Ritchie, The C Programming Language, Prentice Hall of India, 1989.
2. Richard Johnson-baugh & Martin Kalin, Application programming in C, Macmillan International editions, 1990
3 Cooper, Mullish, The Spirit of C, Jaico Publishing House, New Delhi, 1987
3 R.G. Dromey, How to solve it by Computer, Prentice Hall of India, 1992

Supplementary Reading

1. Jones, Robin & Stewart, The Art of C Programming, Narosa Publishing House, New Delhi
2. Kenneth A., C Problem solving and Programming, Prentice Hall International
3. Schildt.H, C Made easy, McGraw Hill Book Company, 1987.

Computer Organization and System Software

Time : 35 hrs

Outline of Syllabus:

		Minimum number of hours	
1.	Introduction and Background	03	
2.	Architecture of a Simple Processor	03	
3.	CPU organization		04
4.	Assembly Language Programming		03
5.	Arithmetic Algorithm		04
6.	I/O organization		04
7.	Memory organization		07
8.	Introduction to system programming		07

1. Introduction and Background
   - 1.1 Evolution of computers
   - 1.2 Stored program concept and Von Neumann Architecture
   - 1.3 Information representation and codes
   - 1.4 Building blocks of computers
     - 1.4.1 Combinational blocks: gates, multiplexes, decoders, encoders, etc.
     - 1.4.2 Sequential Building Blocks : flip flops, registers, counters, random access memory etc.
2. Architecture of a Simple Processor
   - 2.1 A Simple computer organization and instruction set
   - 2.2 Types of Processors
   - 2.3 Instruction execution in terms of microinstructions
   - 2.4 Concepts of interrupt and simple I/O organization
   - 2.5 Implementation of the processor using building blocks
3. CPU organization
   - 3.1 Addressing modes
   - 3.2 Instruction formats
   - 3.3 CPU organization with large register
   - 3.4 Stacks and handling of interrupts and subroutines
   - 3.5 Instruction pipelining : stages, hazards and methods to remove hazards
4. Assembly Language Programming
   - 4.1 Machine and assembly language
   - 4.2 Pseudo-operations
   - 4.3 Subroutines in assembly language
   - 4.4 Interrupt and I/O programming
   - 4.5 Examples
5. Arithmetic Algorithm
   - 5.1 Number systems
   - 5.2 Addition and subtraction for sign magnitude and 2’s complement numbers
   - 5.3 Integer multiplication using shift and add
   - 5.4 Booth’s algorithm
   - 5.5 Integer division

5.6 Floating point representations and arithmetic algorithms

6. I/O organization
   - 6.1 Strobe based and handshake based communication
   - 6.2 Vector and priority interrupts
   - 6.3 DMA based data transfer

3. Memory organization

Classification of Memory
Basic cell of static & dynamic RAM
Building large memories using chips
Associative memory
Cache memory organization
Virtual memory organization

4. Introduction to system programming

Assemblers and macro assemblers
Introduction to loaders and linkers
Introduction to compilers
Introduction to operating systems

BOOKS RECOMMENDED FOR READING AND REFERENCE

MAIN READING

1. M. Morris Mano, Computer System Architecure, Prentice Hall, International 3rd Edition, 1993
2. D.M. Dhamdhere, Introduction to System Software, Tat McGraw Hill, NewDelhi, 1986

SUPPLEMENTARY READING

1. P. Pal Choudhuri, Computer Organisation and Design, Prentice Hall of India Ltd., 1994
2. J.P. Hayes, computer Architecutre and Organisation, McGraw Hill, New York, 1988
3. D.A. Patterson & J.L. Hennessy, Morgan Kanufmann, Compuer Architecure : A Quantitative Approach, 2nd Edition, 1996

SYSTEM ANALYSIS AND DESIGN

Time : 35 hrs

Outline of Syllabus:

		Minimum number of hours
1	Introduction	1
2	System Analyst	1
3	System Development Cycle	2
4	System Planning	3
5	System Design and Modeling	5
6	Input and Output	1
7	Modular and Structure Design	2
8	System Implementation and Maintenance	2
9	System Audit and Security	1
10	Introduction to MIS	2
11	MIS Planning	2
12	Conceptual Design of MIS	4
13	Detailed System Design and Implementation	4
14	MIS for Accounting and Finance Function	2
15	MIS for Personnel Systems	1
16	MIS for Marketing Systems	2

1. Introduction
   - 1.1 System definition and concepts
     - 1.1.1 Characteristics and types of system
     - 1.1.2 Manual and automated systems
   - 1.2 Real-life Business Sub-Systems-
     - 1.2.1 Production
     - 1.2.2 Marketing
     - 1.2.3 Personnel
     - 1.2.4 Material
     - 1.2.5 Finance
   - 1.3 System models; types of models
   - 1.4 Systems environments and boundaries
   - 1.5 Real-time and distributed systems
   - 1.6 Basic principles of successful systems

2 Systems Analyst
   - 2.1 Role and need of Systems Analyst
   - 2.2 Qualifications and responsibilities
   - 2.3 Systems Analyst as an agent of change

3 System Development Cycle
   - 3.1 Introduction to systems development life cycle (SDLC)
   - 3.2 Various phases
     - 3.2.1 Study
     - 3.2.2 Analysis

- 3.2.3 Design
- 3.2.4 Development
- 3.2.5 Implementation
- 3.2.6 Maintenance

3.3 System documentation considerations –
- 3.3.1 Principles of systems documentation
- 3.3.2 Types of documentation and their importance
- 3.3.3 Enforcing documentation discipline in an organization

4 System Planning

4.1 Data and fact gathering techniques –
- 4.1.1 Interviews
- 4.1.2 Group communication
- 4.1.3 Presentations
- 4.1.4 Site visits

4.2 Feasibility study and its importance

4.3 Types of feasibility reports

4.4 System selection plan and proposal

4.5 Prototyping

4.6 Cost-Benefit analysis –
- 4.6.1 Tools and techniques

5 Systems Design and Modeling

5.1 Process modeling

5.2 Logical and physical design

5.3 Design representations

5.4 Systems flowcharts and structured charts

5.5 Common diagramming conventions and guidelines using DFD and ERD for Data Modeling and systems analysis

6 Input and Output

6.1 Classification of forms

6.2 Input/Output forms design

6.3 User-interface design

6.4 Graphical interfaces

7 Modular and Structured Design

7.1 Module specifications

7.2 Module coupling and cohesion
Top-down and bottom-up design

8 System Implementation and Maintenance

8.1 Planning considerations

8.2 Conversion methods, procedures and controls

8.3 System acceptance criteria

8.4 System evaluation and performance

8.5 Testing and validation

8.6 Systems Quality Control and assurance

8.7 Maintenance activities and issues

9 System Audit and Security

9.1 Computer system as an expensive resource
- 9.1.1 Data and storage media

9.2 Procedure and norms for utilization of computer equipment

- 9.3 Audit of computer system usage
- 9.4 Audit trails
- 9.5 Types of threats to computer system and control measures
  - 9.5.1 Threat and risk analysis
  - 9.5.2 Disaster recovery and contingency planning

10 Introduction to MIS
- 10.1 Meaning and role of MIS
- 10.2 Definition to MIS
- 10.3 Systems approach to MIS
- 10.4 MIS organization within a company

11 MIS Planning
- 11.1 General business planning
- 11.2 Derivation of MIS plans
- 11.3 Prioritisation and developmental strategies

12 Conceptual Design of MIS
- 12.1 Definition of the problem
- 12.2 System objectives and system constraints
- 12.3 Analysis of information source
- 12.4 Alternative system design and selection of optimal system
- 12.5 Conceptual system design documents.

13 Detailed System Design and Implementation
- 13.1 Application of basic system design concepts of MIS
- 13.2 Involvement of end-user and role of MIS department and System Analyst
- 13.3 Role of Top Management during design and implementation
- 13.4 System evaluation, review and update.

14. MIS for Accounting and Finance Function
15. MIS for Personnel Systems
16. MIS for Marketing Systems

Books Recommended for Reading and Reference

Main Reading

1. Marvin Gore, John Stubbe, Element of System Analysis, Galgotia Book Source, 1994
2. Whitten, Bently and Barlow, Systems Analysis and Design Methods, Galgotia Publication 1996
3. Elias M. Award, System Analysis & Design, Galgotia Publications, 1996
4. P.S.Grover, System Analysis & Design, BPB Publication, 1994.

Supplementary Reading

1. Harry Edwards, System Analysis & Design, MCGraw-Hill International Ed., 1996
2. Mark G. Simkin, Introduction to Computer Information Systems for Business, S.Chand & Co.,, 1996
3. I.T. Hawryszkiewycz, Intoduction to System Analysis & Design, Prentice Hall of India, 1994.
4. James A. Senn, Analysis & Design of Information Systems, MCGraw-Hill International Edition, 1989.
5. V.Rajaraman, Analysis & Design of Information Systems, Prentice Hall of India, 1991
6. James A. O'Brien, Management Information Systems, Galgotia Publications, 1994
7. Murdick, Ross & Claggett, Information System for Modern Management, Prentice Hall of India

COMMUNICATION SKILLS I

IT course plus a well trained communication skill especially interactional skill is considered a desirable additional qualification that enhances an IT professional to reach out globally. A paper "Communication Skill" in the PGDCA course is included keeping in mind the needs and requirements of the student's where along with their IT knowledge, the necessary practical skill – how to deal with the outside world once they step out from their four-sided stereo type classroom, like - skills on speaking official language appropriately and fluently, interview technique, public speaking, personality development, office etiquettes etc. Syllabus and classroom activities are learner-centered as the course aims at enhancing interactional and interpersonal skills of the students. The first part of the syllabus deals with development of student's LSRW (Listening, Speaking, Reading, and Writing) skills of English language with special attention towards speaking skill /oral communication. The second part deals with grooming the students professionally to make themselves presentable and manageable at the job front confidently. It is hoped that the "Communication Skill" paper will turn up a useful and an interesting part of the PGDCA course as a finishing section of their growth towards a bright IT professionals.

Time : 35 hrs

Outline of Syllabus: Minimum number of hours

1	Introduction to Communication	5
2	Activities with Grammar (SLRW-Skills based Activities)	8
3	Effective Listening and Telecommunication Skills	8
4	Personality Development	5
5	Presentation and Public Speaking	9

1. INTRODUCTION TO COMMUNICATIONS
What is Communication?,
Communication Process,
Types of Communication,
Barriers to Communication,
Ways to Effective Communication,
Seven C's of effective business communication,
Electronic Media in Communication.

2. **ACTIVITIES WITH GRAMMAR (SLRW-SKILLS BASED ACTIVITIES)**
Basic English Grammar: Noun, Pronoun, Adjective, Vern, Adverb, Tenses, Articles, Modals, Voices, Preposition, Phrasal Preposition, Sentences, Subject-Verb Agreement, Conjunction, Punctuation, Direct and Indirect Speech, Building Vocabulary, Degree of comparison, Question Tag and Short Answer, Use of : how, who, what, why, which, where, when, to form questions, Use of : as soon as, until, unless, while, as well as, if, Use of : Either …… or, Neither ….. nor, not only….. but also, no sooner ….. than, both …… and, so…. That, although, though…..yet.

3. EFFECTIVE LISTENING AND TELECOMMUNICATION SKILLS

What is listening, tips for effective listening, academic listening, listening to talks, descriptions, announcement, radio and television etc. Basics of telephone communication, telephone manners, greeting, asking for and giving information.

4. **PERSONALITY DEVELOPMENT**

Confidence building, personal grooming, manner and etiquettes.

5. PRESENTATION AND PUBLIC SPEAKING

Presentation Skills,
WHPI Methods, Advantages of WHPI Methods,
Language of Presentation,
Inviting Questions,
Tips of Better Presentation, Extempore,
Group Discussion, Debate etc.
Speaking practice in different situations – self introduction, meeting friends and relatives, shopping, travelling at the market, at the office etc,
Business Presentation.