

I.I SEMESTER SYLLABUS

COMMUNICATING EFFECTIVELY IN ENGLISH

L T P

3 - 2

Rationale

Interpersonal communication is a natural and necessary part of organizational life. Yet, communicating effectively can be challenging because of our inherent nature to assume, overreact to and misperceive what actually is happening. Poor communication or lack of communication is often cited as the cause of conflict and poor teamwork. In today's team-oriented workplace, managing communication and developing strategies for creating shared meaning are crucial to achieving results and creating successful organizations. The goal of the *Communicating Effectively in English* course is to produce civic-minded, competent communicators. To that end, students must demonstrate oral as well as written communication proficiency. These include organizational and interpersonal communication, public address and performance.

Objectives of Course in Communicating Effectively in English for the First Year (I & II Semesters) are:

- * *Understanding how communication works*
- * *Gaining active listening and responding skills*
- * *Understanding the importance of body language*
- * *Acquiring different strategies of reading texts*
- * *Increasing confidence by providing opportunities for oral and written expressions*

DETAILED CONTENTS FOR FIRST SEMESTER**I SEMESTER****48 HRS****1. COMMUNICATION SKILLS 6 hrs**

- 1.1 Verbal and Non-verbal Communication
- 1.2 Process of Communication
- 1.3 Barriers to Communication; Overcoming Strategies
- 1.4 Listening and Speaking Skills and Sub-Skills
- 2. Spoken English-Introduction, Features of Spoken English

(Note: This module is only for practice. This should not be included in the final examination)

2. DEVELOPING ORAL COMMUNICATION SKILLS**8 hrs**

- 2.1 Greeting, Starting a Conversation
- 2.3 Introducing Oneself
- 2.4 Introducing Others
- 2.5 Leave Taking
- 2.6 Thanking, Wishing Well
- 2.7 Talking about Oneself
- 2.8 Talking about Likes and Dislikes

3. GRAMMAR AND USAGE**12 hrs**

- 3.1 Punctuation
- 3.2 Articles-a, an, the
- 3.3 Framing Questions
- 3.4 Verbs-Classification: Main Verb, Auxiliary Verb, Transitive & Intransitive Verbs, Phrasal Verbs
- 3.5 Word Formation

4. WRITING SKILLS**10 hrs**

- 4.1 Writing Paragraphs
- 4.2 Picture Composition

5. READING SKILLS**12 hrs**

- 5.1 Vocabulary Enhancement
- 5.2 Techniques of Reading: Skimming, Scanning, Intensive and Extensive Reading

NOTE: The Reading Skills of the learners (along with vocabulary enhancement)

will be through reading thematic articles/essays and/or stories.

Section I

Theoretical Concepts of Communication Skills

Unit 1	Communication Skills	
Unit 2	Listening and Speaking Skills and Sub-Skills	24
Unit 3	Pronunciation	29

Section II

Oral Communication Skills

Unit 1	Starting a Conversation	57
Unit 2	Introducing Oneself and Others	58
Unit 3	Greeting and Taking Leave	62
Unit 4	Wishing Well	65
Unit 5	Expressing Thanks	68
Unit 6	Talking about Oneself	69
Unit 7	Expressing Likes and Dislikes	71

Section III Reading

Skills

Unit 1	Who is the Dumbest Animal in the World?	77
Unit 2	The Happy Guy Discovers the Cause of Memory Loss: Defective Glue	86
Unit 3	Himalaya: Tantric Phuchen Lamas	94
Unit 4	Samoa, Heart of Polynesia	100
Unit 5	A Guide to Gas Powered RC Cars	11
Unit 6	Life's a Beach: A Shore Theme in Your Outdoor Space	117
Unit 7	Spanish Tapas: The Small Plate with Big Flavour	124
Unit 8	Himalaya: Cultural Experience—Spiti	134
Unit 9	Paperless Payroll: Going Green Saves More Than Trees	149

Section IV

Writing Skills

Unit 1	Mechanics of Developing a Paragraph	158
Unit 2	Strategies of Developing a Paragraph	165
Unit 3	Integrated Language Tasks	169
Unit 4	Picture Composition	173

Section V

Grammar and Usage

Unit 1	Punctuation	180
Unit 2	Articles	188
Unit 3	Word Formation	192
Unit 4	Framing Questions	199
Unit 5	Verbs	210
Unit 6	Transitive and Intransitive Verbs	214
Unit 7	Phrasal Verbs	219
Appendix: List of New Lexical Items and Expressions		222
Sample Question Paper I		242
Sample Question Paper II		248

1.2 INDUSTRIAL ORGANIZATION

L T P
Hrs/week 4 2 -

RATIONALE

The purpose of this subject is to develop an understanding of basic concepts of business, commerce and industry. The course includes concept of trade, commerce, and industrial organisations.

DETAILED CONTENTS

1. Concept of business, trade, commerce and industry, importance of commerce in industry, organization of business. The essential requisites for business success; Social responsibility of business (10 hrs)
2. Types of ownership of Industrial Organization (22 hrs)
 - a) Sole proprietorship
 - b) Hindu undivided family
 - c) Partnership
 - d) Co-operative Societies
 - e) Joint stock companies
 - f) Form of public sector undertakings
3. Foreign Trade: Introduction to export and import (6 hrs)
4. Transport – Land, air and water etc. merits and demerits of each (6 hrs)
5. Insurance – marine, fire, life etc (8 hrs)
6. Negotiable Instruments: Bills of exchange, promissory notes, cheques, drafts (6 hrs)
7. Operation of various bank accounts – Endorsement and crossing functions of commercial banks, credit cards, use of ATM (6 hrs)

Note: At least two visit to industry / field in a semester

RECOMMENDED BOOKS

1. Fundamentals of Business Organization and Management by YK Bhushan, Sultan Chand and Sons, New Delhi
2. Organization and Management by Kulshreshta, Sahitya Bhawan, Agra

3. Business Organization and Management by CB Gupta, Sultan Chand and Sons, New Delhi

TUTORIAL ASSIGNMENTS

1. Prepare a bill of exchange, Promissory Notes, Cheques and Drafts
2. Prepare a partnership deed and explain how to get it registered
3. Explain various fire and life insurance policies
4. Explain various types of transport systems with their merits and demerits
5. Make a comparative study of the features of Joint Stock Company and co-operative societies
6. Uses of credit cards and ATM

1.3 ESSENTIALS OF MANAGEMENT

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Hrs/week 4 2
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RATIONALE

The study and understanding of principles of management concepts and different functions of management is very essential for the students of this diploma. The subject includes elementary knowledge of concepts of management viz. planning, organizing, staffing, directing and controlling. The basic knowledge of various functions of management will enable the students to take effective steps for performing various office duties.

DETAILED CONTENTS

1. Introduction (12 hrs)
 - 1.1 Concept, scope and importance of management
 - 1.2 Role, objectives and functions of management
 - 1.3 Principles of management
2. Planning (10 hrs)
 - 2.1 Concept and importance
 - 2.2 Planning process
 - 2.3 Meaning and importance, purpose, mission, objectives, short term, long term and strategic planning, policies and procedures
 - 2.4 Meaning, importance and process of decision making
3. Organizing (12 hrs)
 - 3.1 Concept and importance
 - 3.2 Concepts, advantages and disadvantages of formal, informal, functional, line, staff and committee types of organization
 - 3.3 Concepts, importance and difference between delegation and decentralization
4. Staffing (16 hrs)
 - 4.1 Concept, need and importance of training

- 4.2 Introduction to on-the-job, off-the-job and continuing training
5. Directing (10 hrs)
- 5.1 Concept and importance
- 5.2 Leadership – concept, importance, types of leaders, qualities of good leader
- 5.3 Motivation – meaning, types and importance
- 5.4 Communication – concepts, importance, process and types of communication, barriers to communication
6. Controlling (8 hrs)
- 6.1 Concept importance and process of control
- 6.2 Monitoring and evaluation – concepts only

Note: Visit an industrial Organization and preparation of report

Teacher may invite experienced managers from industries and other organizations to deliver extension lectures. The teacher should plan and prepare appropriate tutorial assignments for the students. Students may be encouraged to prepare and present the case studies

RECOMMENDED BOOKS

1. Principles and Practice of Management by Prasad LM; Sultan Chand and Sons, New Delhi
2. Management Theory and Practice by Gupta CB, Sultan S Chand & Co., New Delhi
3. Management Concepts and organization Behahaviour by NK Sahni, Kalyani Publishers
(2003) New Delhi
4. Fundamentals of Business Organization and Management by Bhushan YK; Sultan S Chand & Co., New Delhi

5. Principles of Management – an Analysis of Managerial Functions by Koontz O Donnel
McGraw Hill Book
Company
6. Essentials of Management by Singh and Chhabra; Kitab Mahal, New Delhi
7. Principles and Practice of Management by TN Chhabra; Dhanpat Rai and Sons, New Delhi
8. Principles and Practice of Management by SP Ganguli, Chatterjee Publishing Concern
9. Management Principles and Practice by R Srinivasan and SA Chunawalla; Himalaya
Publishing House, Bombay, Delhi and Nagpur
10. Managing People Effective, Managerial Experiences by Dr ML Bhasin; Global Business Press. – “OM” Series
11. Principles and Practice of Management by CB Gupta, National Publishing House, New Delhi

TUTORIAL ASSIGNMENTS

1. Comparing the qualities of good leader and effective manager
2. Methods of training
3. Management v/s administration
4. Elements in decision making process

1.4 BUSINESS ECONOMICS

RATIONALE

The objective of this subject is to make familiar the students with the basic concepts of economics prevailing in business world to make a strong formal base for their career. Economics leads to optimum and equal distribution of different factors of production. The success and survival of the business depends upon optimum use of limited resources. They will learn about consumption, production, market, wages, rent, interest, profit and various aspects of managerial economics.

DETAILED CONTENTS

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|----|--|----------|
| 1. | Basic Concepts

(hrs) Utility, goods, value, price, wealth, human wants and classification of wants in to necessities, comforts and luxuries | (8 |
| 2. | Consumption

(hrs) Concept of utility and marginal utility, laws of diminishing marginal utility and equi-marginal utility, indifference curves, demand and laws of demand elasticity of demand and its measurement, point elasticity and arc elasticity | (10 |
| 3. | Production

Characteristics of factors of production, land, labour, capital, organization and enterprise. Efficiency and division of labour, capital formation and function of entrepreneur, laws of returns to scale, law of diminishing returns (variable proportions) | (10 hrs) |
| 4. | Market

Meaning, size and types. Perfect competition and general principles of price determination under perfect competition | (10 hrs) |
| 5. | Wages

(hrs) Meaning, nominal and real wages, demand and supply theory of wages | (8 |

6. Rent (8 hrs)
 hrs) Meaning, Ricardian theory of rent
7. Interest (6 hrs)
 Meaning, gross and net interest, demand and supply (of capital) theory of interest
8. Profit (4 hrs)
 Meaning, gross and net profit

RECOMMENDED BOOKS

1. Principles of Economics by Jain; Gupta and Narang
2. Modern Economics Theory by KK Dewett, Vikas Publication, New Delhi
3. Micro Economics by TR Jain, Vikas Publications, New Delhi
4. Business Economics by Mithani DM; Himalaya Publications

TUTORIAL ASSIGNMENTS

1. Elasticity of demand and factors which determine elasticity of demand
2. Application of law of diminishing marginal utility
3. Uses of indifference curve analysis
4. Explain income, substitution and price effect
5. Examples of inferior goods and Giffen goods
6. Explain factors of production
7. Labour its types and importance
8. Factors governing the efficiency of labour
9. Compare capital and wealth

1.5 ORGANIZATIONAL BEHAVIOUR - I

RATIONALE

The main objective of this course is to familiarize the students with basic concepts of human behaviour, principle practices and organizational processes on a behavioural dimensions

DETAILED CONTENTS

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|----|--|----------|
| 1. | Individual Behaviour | (10 hrs) |
| | Meaning and concept of individual behaviour, basis of individual differences, abilities, learning aptitudes, attitudes value measurement | |
| 2. | Personality | (15 hrs) |
| | Nature and determinants of personality, self concept and defensive behaviour, perception, perceptual selection and distortion | |
| 3. | Self Development | (14 |
| | hrs) Understanding of self, transactional analysis
Macland Theory of achievement, power and affiliation | |
| 4. | Motivation | (25 hrs) |
| | Meaning and types of motivation, theories of motivation, Maslow's need, hierarchy, Herzberg two factor theory, theory X and Y, Vrooms theory of expectation, | |

RECOMMENDED BOOKS

1. Management concept and organisational behaviour by Dr. MARKETING Sahni
2. Organisational behaviour by Shri Sashi Gupta and Rosy Joshi, Kalyani Publication, New Delhi
3. Organizational Behaviour by Luthans Fred, McGraw Hills
4. Organizational Behaviour by LN Prasad, Sultan Chand and Sons, New Delhi
5. Organization Behaviour by SP Robbins, Prentice Hall of India, New Delhi
6. Organizational Behaviour by Uma Saharan, Tata McGraw Hill, New Delhi
7. Human Relations and Organization Behaviour by RS Diwidhi, MacMillan

India Ltd, New Delhi.

8. Human Behaviour at Work by Keith Davis, Tata McGraw Hill, New Delhi
9. Organizational Theory and Behaviour by RA Sharma, Tata McGraw Hill, New Delhi
10. Organizational Processes by Udai Pareek, Oxford and IHB, New Delhi

TUTORIAL ASSIGNMENTS

1. Study of Johari window
2. Narrate few incidents of perceptual distortions
3. Study of defensive behaviour of the students in the class
4. Comparative study of need hierarchy theory and two factor theory
5. Comparative study of McGrann's theory "X" and "Y"
6. Study of individual behaviour of a classmate by assigning Weightage to each aspect of individual behaviour
7. Identify the personality of 5 classmates
8. Understand self; a complete report in 500 words
9. Discuss advantages and disadvantages of various theories of motivation of merit.

1.6 INDEPENDENT STUDY AND PRESENTATION

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RATIONALE

This course has been introduced for the first time to have noval experience with the aim to develop communication (written and oral) ability of students and habit of self study which will make them self learners. This is not a subject for which there is external theory examination.

Through this course, the students will have the opportunity of self and independent study by searching literature. They will prepare study papers and presentations. The teachers will provide topics for self-learning.

There will be internal and external assessment for the work done and performance.

The topics must be chosen from the curriculum. Situational approach should be added through case studies relating to actual life of the individual, family, organisation etc. in Indian or international context.

Following criterion for assessment will be both in internal and external evaluation:

Preparation of study paper	-	40%
Presentation and via	-	60%

SUGGESTED TOPICS

1. Communication and barriers in Communication
2. Types of communication and importance of non-verbal communication
3. Different types of ownership of Business Originations
4. Operation of various bank Accounts and negotiable instruments
5. Insurance
6. Social responsibility of Business Management
7. Role, Objective and functions of Management
8. Planning Process
9. Leadership
10. Motivation
11. Management by Objectives(MBO)
12. Market (Perfect competition and price determination under perfect competition
13. Wages
14. Factors of Production
15. Personality
16. Self Development

1.7 GENERAL WORKSHOP PRACTICE – I & II

RATIONAL

Manual abilities to handle engineering materials with hand tools need to be developed in the students. They will be using different types of tools/equipment in different shops for fabrication purposes. Besides developing the necessary skills, the students will appreciate the importance of quality and safety measures.

DETAILED CONTENTS

- Note:**
1. The students are supposed to come in proper workshop dress prescribed by the institute. Wearing shoes in the workshop(s) is compulsory. Importance of safety and cleanliness, safety measures and upkeep of tools, equipment and environment in each of the following shops should be explained and practiced. The students should prepare sketches of various tools/jobs in their practical Notebook.
 2. The shops to be offered in I and II semester may be decided at polytechnic level
 3. The students should be taken to various shops (not included in the curriculum) in the polytechnic in batches and should be given knowledge of the various machines/equipment. Such as machine shop, foundry shop, sheet metal shop, etc.
 4. Students of Diploma in Chemical Engineering will undergo Shops 1 to 6 only

Following seven shops are being proposed:

1. **Carpentry shop**
2. **Fitting and plumbing shop**
3. **Welding shop**
4. **Paint shop**
5. **Forging and sheet metal shop**
6. **Electric shop**
7. **Electronics Shop**

1. Carpentry Shop

- 1.1 Introduction to various types of wood, carpentry tools - their identification with sketches. Different types of wood joints.
- 1.2 Simple operations viz. hand sawing, marking, planning
- 1.3 Introduction and sharpening of wood working tools and practice of proper adjustment of tools
- 1.4 Demonstration and use of wood working machines i.e. band saw, circular saw, rip saw, bow saw and trammels. Universal wood working machine and wood turning lathe
- 1.5 Making of various joints (Also draw the sketches of various wooden joints in the Practical Note Book)
 - a) Cross lap joint
 - b) T-lap joint
 - c) Corner lap joint
 - d) Mortise and tenon joint
 - e) Dovetail joint
 - f) Prepare a file handle or any utility items by wood turning lathe

2. Fitting and Plumbing Shop

- 2.1. Introduction to fitting shop, common materials used in fitting shop, description and demonstration of various types of work-holding devices and surface plate, V-block
- 2.2 Demonstration and use of simple operation of hack-sawing, demonstration of various types of blades and their uses
- 2.3 Demonstrate and use of all important fitting shop tools with the help of neat sketches (files, punch, hammer, scraper, taps and dyes etc.)
- 2.4 Introduction of chipping, demonstration on chipping and its applications.
 Demonstration and function of chipping tools.
- 2.5 Description, demonstration and practice of simple operation of hack saw, straight and angular cutting.

- 2.6 Demonstrations, description and use of various types of blades - their uses and method of fitting the blade.
- 2.7 Introduction and use of measuring tools used in fitting shop like: Try square, Steel rule, Measuring Tape, Outside micrometer, Vernier Caliper and Vernier Height Gauge
- 2.8 Description, demonstration and practice of thread cutting using taps and dies
- 2.9 Plumbing: Descriptions and drawing of various plumbing shop tools, Safety precautions. Introduction and demonstration of pipe dies, Pipe holding devices, Demonstration and practice of Pipe Fittings such as Sockets, Elbow, Tee, Reducer, Nipple, Union coupling, plug, Bend, Float valves and Taps

Job: Cutting and filing practice on a square of 45 X 45 mm² from MS flat

Job: Angular cutting practice of 45° (on the above job)

Job: Preparation of stud (to cut external threads) with the help of dies (mm or BSW)

Job: Drilling, counter drilling and internal thread cutting with Taps

Job: H-Fitting in Mild steel (ms) square

Job: Pipe cutting practice and thread cutting on GI Pipe with pipe dies

3. Welding Shop

- 3.1 Introduction to welding, type of welding, common materials that can be welded, introduction to gas welding equipment, types of flame, adjustment of flame, applications of gas welding. Welding tools and safety precautions
- 3.2 Introduction to electric arc welding (AC and DC), practice in setting current and voltage for striking proper arc, precautions while using electric arc welding. Applications of arc welding. Introduction to polarity and their use
- 3.3 Introduction to brazing process, filler material and fluxes; applications of brazing. Use of solder. Introduction of soldering materials
- 3.4 Demonstrate and use of the different tools used in the welding shop with sketches. Hand shield, helmet, clipping hammer, gloves, welding lead, connectors, apron, goggles etc.

3.5 Demonstration of welding defects and Various types of joints and end preparation

Job: Preparation of cap joint by arc welding

Job: Preparation of Tee joint by arc welding

Job: Preparation of single V or double V butt joint by using Electric arc welding

Job: Brazing Practice. Use of Spelter (on MS sheet pieces) Job: Gas welding practice on worn-out and broken parts

4. Paint Shop

Introduction of painting shop and necessity. Different types of paints. Introduction of powder coating plant and their uses.

Job: Preparation of surface before painting such as cleaning, sanding, putty, procedure and application of primer coat, and painting steel item.

Job: Painting practice by brush on MS sheet

Job: Practice of dip painting

Job: Practice of lettering: Name plates / Sign board

Job: Polishing and painting on wooden and metallic surfaces

Job: Practical demonstration of powder coating

5. Forging and sheet metal shop

Introduction to forging, forging tools, tongs, blowers/pressure blowers, hammers, chisels, punch, anvil, swag-block etc. Forging operations.

5.1 Forge a L hook or Ring from MS rod 6 mm ϕ

5.2 Forge a chisel and give an idea of hardening and tempering

5.3 Lap joint with forge welding

5.4 High Strength Steel (HSS) tools – forging of Lathe shaper tools like side-tools and V-shape tools

5.5 Making sheet metal joints

5.6 Making sheet metal tray or a funnel or a computer chassis

5.7 Preparation of sheet metal jobs involving rolling, shearing, creasing, bending and cornering

5.8 Prepare a lap riveting joint of sheet metal pieces

6. **Electric Shop**

- 6.1 Demonstration of tools commonly used in Electric Shop
- 6.2 Safety precautions , electric shock treatment
- 6.3 Demonstration of Common Electric material like: wires, fuses, ceiling roses, battens, cleats and allied items
- 6.4 Demonstration of Voltmeter, Ammeter, Multimeter and Energy meter
 - Job: Wiring practice in batten wiring, plastic casing-capping and conduit
 - Job: Control of one lamp by one switch
 - Job: Control of one lamp by two switches Job: Control of one bell by one switch Job: Assemble a Tube light
 - Job: Dismantle, study, find out fault, repair the fault, assemble and test domestic appliances like electric iron, electric mixer, ceiling and table fan, tube-light, water heater (geyser) and desert cooler
 - Job: Laying out of complete wiring of a house (Single-phase and Three- phase)

7. **Electronics Shop**

- 7.1 Identification, familiarization, demonstration and use of the following electronic instruments:
 - a) Multi-meter digital
 - b) Single beam simple CRO , function of every knob on the front panel
 - c) Power supply , fixed voltage and variable voltage, single output as well as dual output.
- 7.2 Identification , familiarization and uses of commonly used tools; active and passive components; colour code and types of resistor and potentiometers
- 7.3 Cut, strip, join and insulate two lengths of wires/cables (repeat with different types of cables/ wires)
- 7.4 Demonstrate and practice the skill to remove components/wires by unsoldering
- 7.5 Cut, bend, tin component, leads, inserts. Solder components e.g. resistor, capacitor, diodes, transistors on a PCB
- 7.6 Wiring of a small circuit on a PCB/tag strip involving laying, sleeving and use of identifier tags

- 7.7 Demonstrate the joining (or connecting) methods/mounting and dismantling method, as well as uses of the items mentioned below:
- a) Various types of plugs, sockets, connectors suitable for general-purpose audio video use. Some of such connectors e.g. 2 and 3 pin mains plug and sockets, Banana plugs, sockets and similar male and female connectors and terminal strips.
 - b) Various types of switches such as: normal/miniature toggle, slide, push button piano key, rotary, SPST, SPDT, DPST, DPDT, band selector, multi-way Master Mains Switch.
- 7.8 Exposure to modern soldering and de-soldering processes (Field visits)
- 7.9 De-solder pump, remove and clean all the components and wires from a given equipment, a PCB or a tag strip.