2.1 COMMUNICATING EFFECTIVELY IN ENGLISH
II SEMESTER SYLLABUS

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 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.

II SEMESTER 48 hrs

1. LISTENING COMPREHENSION 4hrs

1.1 Locating Main Ideas in a Listening Excerpt
1.2 Note-taking

2. ORAL COMMUNICATION SKILLS 14 hrs

2.1 Offering-Responding to Offers
2.2 Requesting-Responding to Requests
2.3 Congratulating
2.4 Expressing Sympathy and Condolences
2.5 Expressing Disappointments
2.6 Asking Questions-Polite Responses
2.7 Apologizing,
Forgiving
2.8 Complaining
2.9 Persuading
2.10 Warning
2.11 Asking for and Giving Information
2.12 Giving Instructions
2.13 Getting and Giving Permission
2.14 Asking For and Giving Opinions

3. GRAMMAR AND USAGE **10hrs**

3.1 Prepositions
3.2 Pronouns
3.3 Determiners
3.4 Conjunctions
3.5 Question and Question Tag
3.6 Tenses (Simple Present, Simple Past)

*One chapter revising the topics discussed during the first semester.
(Punctuation, Articles, Framing questions, Verbs, Word formation)

4. WRITING SKILLS **10hrs**

4.1 Writing Notice
4.2 Writing Circular
4.3 Writing a Memo
4.4 Agenda for a Meeting
4.5 Minutes of the Meeting
4.6 Telephonic Messages

* Writing a paragraph will be a continuous exercise through out the session.
(Writing will be based on verbal stimuli, tables and graphs.)

5. READING SKILLS **10hrs**

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.

CONTENTS

Reading Skills

Writing Skills

Grammar and Usage

2.2 TEXTILE SCIENCE - II

L	T	P
3	-	2

RATIONALE

The knowledge and skills related to textile science is essential to provide a comprehensive insight into the basic knowledge about fabric structure, dying, printing and finishing affecting the ultimate performance and use of the fabric by the consumer, hence the subject is included in the curriculum

DETAILED CONTENTS

THEORY	PRACTICAL EXERCISE
1. Fabric Structure and properties relevant to consumer requirements such as:	
a. <u>Knits:</u> - Type of stitches used (Purl, Jersey, Miss, Tuck) - Classification: warp and weft knits - Weft knits: Plain, Purl, Rib, Velour, Terry, Pile - Warp knits: Tricot, Milanese, Lascael	Identify and analyze different type of knits samples and enlist their characteristics (design) Visits to a knitting unit to understand different knitting machines and processes
b. Braids, lace, nets – basics	
2. Finishes	
a) Importance of finish: definition, objectives and preliminary preparations	Prepare a catalogue of fabrics with the following finishes on the basis of visual inspection and textile markings: bleaching, mercerization, embossing, moiering, napping, flocking, plisse, organdy, acid finish, devore
b) Type and classifications of finishes Finishes affecting appearance: bleaching, calendering, moiering, embosing, glazing, schiering	

	THEORY	PRACTICAL EXERCISE
	- Finishes affecting texture: Flocking, napping, burnt out designs, plisse, acid finish, stiffening - Finishes affecting function: Tentering, shrinkage control in cotton rayon, wool, heat setting in synthetics, moth, mildew, proofing, water repellancy, wash-n-wear finish, mercerization, crease resistant	
3.	Understanding role of labels/textile markings textile consumer - Criteria for textile markings (Sources: BIS pamphlets)	Collect swatches of different type of fabrics for textile markings and critically analyze them for the contents
4	Application of colour aesthetic finish	
	Dyeing – Definition, stages of dyeing (fibre, yarn, piece dyeing, garment dyeing) and value added washes - Stone wash - Enzyme wash etc	Dyeing of yarns/value of cotton/wool Identify the fabrics according to the stages of dyeing Fabric/garment dyeing
5.	Printing – definition, methods and type of printing techniques - Direct: block, roller printing, discharge duplex - Resist: screen, stencil, heat transfer - Batik, tie and dye - Photographic, bubble and marbel printing	Identify the fabric samples on basis of the printing techniques Block printing, screen, batik, tie and dye
6.	Importance of colour fastness to the consumer – Evaluation of colour fastness, Factors influencing colour fastness	Assessing colour fastness of the given fabric samples (dyed and printed) to: i) Laundering ii) Light/Sunlight iii) Ironing – dry and wet iv) Perspiration v) Crocking

THEORY	PRACTICAL EXERCISE
	Demonstration of following equipment used for testing colour fastness through a visit to a textile testing laboratory laundero-meter, fadometer, specto-meter, crockometer, colouri-meter
7. Importance of shrinkage calculation during garment construction	To determine and calculate fabric and garment shrinkage in cotton, worsted and georgette

8. Defects in Fabrics
   - Dyeing defects
   - Print defects

Note: At the end of second semester, students are required to prepare a swatch file, which will have the following details:

i) Fabric Swatch – 5” x 5” or 10” x 10”
This swatch should be selected on following basis:

1. Fiber type
2. Yarn type
3. Processing type of fabric (Dyed or Printed)
4. Fabric finishing

ii) Production Cost/mt.

iii) Available width of fabric

iv) Type of packaging

v) Place (City/Area of Manufacture)

Assignment

Prepare a catalogue of fabric samples of fabric points consisting of different types and their characteristics

Note: The teacher may develop master samples to demonstrate various processes. The students may be asked to prepare swatch files. The students should be taken for a visit to textile testing laboratory, dyeing and printing to familiarize with the various processes

RECOMMENDED BOOKS

1. Understanding Textiles by Phyllis Tortora

2. Modern Textiles by Rothy Siegert Lyle

3. Encyclopedia of Textiles, Fibres and Non-woven Fabrics

4. Textiles Fiber to Fabric – P Corbman

5. Fabric Science by Joseph Pizzuto

2.3 PRINCIPLES OF DESIGN

L	T	P
2	-	4

RATIONALE

The knowledge and skill related to principles of design is essential for the students of diploma programme of fashion technology in order to develop the understanding regarding how to make a design using scale, space, proportion, rhythem, harmony, textures and collage from waste material

DETAILED CONTENTS

	THEORY	PRACTICAL EXERCISE
1.	Principles of design, rhythm, harmony, space, scale, proportions, balance, unity, symmetry	Corresponding exercises with rhythm, harmony, balance, unity, and symmetry to be done on dummy
2.	Space – value and space in design	Practical exercises on optical illusion
3.	Collage and its types – relief and flat	Making collage with waste material Making collage with flat materials Making collage with fabrics

Note: The teacher should encourage the students to do market surveys, field visits and the students may be exposed to fairs and exhibition

RECOMMENDED BOOKS

1. Fashion Drawing Designs; Magazine of Thailand
2. Pattern Designs for Haute Couture Volume 1
3. Fashion Drawing – The Basic Principles by Anne Allen and Julion seaman
4. Latest Fashion Style by Winter Hiver
5. Jasmine’s New Look, On Indian Fashion Scene
6. Lifestyles: Fashion Styles by Katheryn Samuel
7. Spring and Summer Collection; Tokyo, New York

2.4 BASIC PATTERN MAKING AND STYLE INTERPRETATION - II

L	T	P
2	-	6

RATIONALE

The students should know various considerations in making of garments, scope and importance of drafting and pattern making so that they are able to take measurements, interpret the style of any given design and make the pattern. The subject, therefore deals with basics of pattern making and styling of garments.

DETAILED CONTENTS

THEORY

1. Principal of pattern making – manipulation addition continuing (04 hrs)

2. Pattern details – terminology and classification of: (08 hrs)

   - Collar
   - Sleeves
   - Yokes – functional and decorative
   - Empire and princess line
   - Pockets

3. Pattern styles – skirt terminology (06 hrs)

   - categorization of skirts on the basis of length and flare and their variations

4. Pants (04 hrs)

   - terminology
   - categorization of pants on the basis of length and fit and their variations

5. Study of the basic figure types, figure defects and developing patterns for them (04 hrs)

6. Layouts (06 hrs)

   Planning layouts for various widths and special fabric (e.g. plaids, piles and unidirectional fabrics)

LIST OF PRACTICALS

1. Style interpretation of any given design

2. Adaptation of child's bodice to :

   - Yokes
   - Bodice lengths

3. Adaptation of basic sleeve to:

   - Puff sleeve
   - Cap sleeve
   - Flared sleeve
   - Magyar sleeve
   - Balloon sleeve
   - Petal sleeve
   - Leg-o-mutton sleeve

4. Drafting and adaptation of various collars

   - Baby collar
   - Peter pan collar – flat and raised
   - Cape collar
   - Sailor's collar
   - Convertiable collar

Note: The students may be taken to the nearby garment manufacturing organizations to demonstrate various pattern making and style interpretation processes

RECOMMENDED BOOKS

1. Pattern Making for Fashion design by Helen Joseph Armstrong

2. The ABC's of Grading by Murray Sacheir

3. Basic Pattern Skills for Fashion Design by Bernard Zamkoft

4. Design Apparel Through the Flat Pattern by Ernestine Kopp

5. Pattern Cutting and Making up by Martin Shoben

2.5 FASHION ILLUSTRATION -II

L	T	P
-	-	4

RATIONALE

The skill in fashion illustration is essential for the students of fashion technology so as to develop in them the creativity. After going through this subject, the student of fashion technology will be able to illustrate different types of figures and dresses in different colour media

DETAILED CONTENTS

PRACTICAL EXERCISES

1.	Drawing from A live model (2 hrs/week)		1/2 sheet
2.	Three-dimensional body	2 Nos.	1/2 sheet
3.	Drawing from photographs	4 Nos.	¼ sheet
4.	Different color media		¼ sheet
5.	Presenting illustrations	2 Nos.	1/2 sheet

6. Inspiration

   - Collecting scrap
   - Sketch Book
   - Museums and Fine Art Books
   - Contemporary Fine Arts
   - Movies

7. Period Fashion Illustrations

- 1900 – 1930	1 No.	¼ sheet each
1930 – 1950	1 No.	
1950 – 1970	1 No.	
1970 – Present		

8. Contemporary Illustration: causal wear, summer wear, and rain wear season (1/4 sheet)

9. Drawing of men in different colour media like poster colour, water colour, water proof inks

- Male muscle structure - Drawing men step by step - Men faces	2 Nos each	
Men garments: - Shirts - Casual tops - Men's suits	4 Nos each	¼ sheet each

10. Drawing of Children Proportion

- 1 Year old - 2 – 3 Years old – 5 Years old - 5 – 10 Years old	2 Nos each	

11. Drawing of Accessories

- Shoes - Belts - Jewellery - Gloves - Hats	2 Nos each.	

12. Coloring of the various dresses using appropriate colour media e.g. using water-colour to depict silk, woolen, jute, hoisery, net, sheer fabrics. The material should be identified (4 sheet of ¼ sheet)

13. Group discussions – Once a week, Fashion TV to be watched for half an hour in a week

14. Innovative design development of creativity – 2 sheets of ½ sheet)

15. Different types of fashion figures both Western and Indian

16. Quick sketching with sketch pen

17. Visit to the Central park, Museums, Railway station for Outdoor sketching

2.6 GARMENT CONSTRUCTION - II

L	T	P
-	-	8

RATIONALE

The diploma holders in fashion technology are supposed to prepare various components of garments such as plackets, neckline variations, sleeves, pocket, so it is very essential that they should be able to fabricate various components of fashion. Hence this subject has been included in the curriculum to develop such competencies in the students. The subject deals with basics of garment construction.

DETAILED CONTENTS

	INSTRUCTIONS FOR PRACTICALS	PRACTICAL EXERCISES
1.	Types of plackets (extended mock, 2 piece etc)	Preparation of various types of plackets (extended mock, 2 piece etc)
2.	Neckline variations (round, square, cowl, V shape, ruffle, sweet heart, boat)	Preparation of neckline variations (round, square, cowl, V shape, ruffle, sweet heart, boat)
3.	Types of Pockets (patch, bello, welt, bound, set in)	Preparation of various types of Pockets (patch, bello, welt, bound, set in)
4.	Types of sleeves (plain, puff, flared, bell, cap, magyar)	Preparation of various types of sleeves (plain, puff, flared, belt, cap, magyar)
5.	Type of fastners – zipper	Practice of attachment of zipper (concealed open ended, lapped, centered

RECOMMENDED BOOKS

1. Clothing Construction by Doongaji; Raaj Parkashan Ltd., Delhi

2. System of Cutting by Zarapkar

3. Clothing Construction by Evelyn A Mansfield, Hougutan Miffin Co., Boston

4. Creative Sewing by Allynie Bane; McGraw Hill Book Co., Inc., New York

5. Complete Guide to Sewing by Readers Digest

6. Fashion Maker by Betty Foster

7. Fashion Clothes- She by Debbie Bliss, Sue Penerill

8. Basic Processes and Clothing Construction by Sherie Doongaji and Raushini Despande

9. Simplicity Revised ABC of Short-Cut Sewing

10. The Brides Sewing Book by Anne Ladbury

11. Stitch by Stitch by Tarstar Books

12. Pattern Cutting and Making up by Martin Shoben

13. The art of Sewing by Aina Jacob Thomas; UBS Publishers Distributors Ltd., New Delhi

ECOLOGY AND ENVIRONMENTAL AWARENESS CAMP

A diploma holder must have knowledge of different types of pollution caused due to industries and constructional activities so that he may help in balancing the eco system and controlling pollution by pollution control measures. He should also be aware of environmental laws related to the control of pollution.

This is to be organized at a stretch for 3 to 4 days. Lectures will be delivered on following broad topics. There will be no examination for this subject.

1. Basics of ecology, eco system and sustainable development

2. Conservation of land reforms, preservation of species, prevention of advancement of deserts and lowering of water table

3. Sources of pollution - natural and man made, their effects on living and non-living organisms

4. Pollution of water - causes, effects of domestic wastes and industrial effluent on living and non-living organisms

5. Pollution of air-causes and effects of man, animal, vegetation and non-living organisms

6. Sources of noise pollution and its effects

7. Solid waste management; classification of refuse material, types, sources and properties of solid wastes, abatement methods

8. Mining, blasting, deforestation and their effects

9. Legislation to control environment

10. Environmental Impact Assessment (EIA), Elements for preparing EIA statements

11. Current issues in environmental pollution and its control

12. Role of non-conventional sources of energy in environmental protection

2.7 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 mm^2 from MS flat

Job: Angular cutting practice of 45^0 (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 Speltor (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 trey 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.