

## 5.1 ADVANCED PATTERN MAKING - I

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### RATIONALE

The students are supposed to perform the jobs of pattern maker when engaged in garment manufacturing. After going through this subject, students will be able to manipulate different darts and increase or decrease any pattern proportions

### DETAILED CONTENTS

#### PRACTICAL EXERCISES

1. Women's Shirts ( 3 Styles)
  - Drafting Women's shirts
  - Adaptation of the women's shirt to various styles
2. Drafting of kalidar kurta and churidar pyjama, salwaar kameez
3. Women's Trousers
  - Drafting of Women's trousers
  - Adaptation of Women's trousers to various styles (3 Styles )

#### RECOMMENDED BOOKS

1. Pattern Making for Fashion design by Helen Joseph Armstrong, Vikas Publishing House Pvt. Ltd. Delhi
2. The ABC's of Grading by Murray Sacher, New Age Publisher, Delhi
3. Pattern Making for Fashion design by Armstrong, Vikas Publishing House Pvt. Ltd. Delhi
4. Basic Pattern Skills for Fashion Design by Bernard Zamkoff, McGraw Hill Book Co. Inc. New York
5. Design Apparel Through the Flat Pattern by Ernestine Kopp, Beatrice Zelin Publisher, New York

## 5.2 GARMENT CONSTRUCTION - V

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### RATIONALE

The diploma holders are supposed to fabricate the garments, so it is very essential that they should be able to fabricate various garments as per the layouts and specifications. Hence this subject has been included in the curriculum in order to develop such competencies.

### DETAILED CONTENTS

#### PRACTICAL EXERCISES

Construction of women's garments such as:

1. Salwar kameez
2. Kalidar kurta and churdiar pyjama
3. Saree blouse
4. Women's shirt
5. Women's trousers

#### RECOMMENDED BOOKS

1. Pattern Making for Fashion design by Armstrong, Vikas Publishing House Pvt. Ltd. Delhi
2. Clothing Construction by Doongaji, Raj Parkashan, Delhi.
3. System of Cutting by Zarakar, Navneet Publications
4. Clothing Construction by Evelyn A Mansfield, Houghton Mifflin Co., Boston
5. Creative Sewing by Allynne Bane; McGraw Hill Book Co., Inc., New York
6. How You Look and Dress by Byrta Carson; McGraw Hill Book Co., Inc., New York
7. Complete Guide to Sewing by Reader's Digest.

### 5.3 CAD IN GARMENT TECHNOLOGY - III

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#### RATIONALE

The term CAD has found its way into all major disciplines that have got anything to do with designing or drafting techniques. The major objective of this course is to expose the students to different softwares available in the field of garment technology, so that they are able to use those software in the design and construction of various garments

#### DETAILED CONTENTS

#### PRACTICAL EXERCISES

1. Knowledge and operation of CAD package for pattern making, digitizing, grading and marker making for the following: -
  - Adult Women's bodice block
  - Shifting of darts to basic waist dart
  - Sleeve block
  - Dart manipulation – single dart series adding fullness in darts
  - Shirt block
  - Collar - Convertible collar
    - Non- convertible collar
  - Sleeves - Puff sleeve
    - Bell sleeve
    - Shirt sleeve with cuff
  - Grading and marker layout of above

**Note:** Select any one of the software from the following or any other available in the market

- a) Lectra
- b) Tuka Tech. Inc. U.S.A.
- c) Gerber Garment Technology (GGT)
- d) Reach Technologies
- e) Any other pattern making package available in markets(latest version)

## 5.4 QUALITY CONTROL IN APPAREL INDUSTRY

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3 - 2

### RATIONALE

Diploma holders in garment technology are required to monitor the quality of the garments on the shop floor. They are also required to inspect the garments during their construction.

### DETAILED CONTENTS

#### THEORY

1. What is Quality (06 hrs)
  - Need for quality control
  - Quality Assurance
  - Quality Standard
  - Benefits of quality
  
2. What is Inspection (10 hrs)
  - a) Meaning
  - b) Different types of inspection
    - Raw material inspection
    - Fabric (4 point system/10 point system)
    - In process inspection
    - Final inspection
  - c) Role of inspector in inspection
  
3. ISO – 9001-2008 & SA 8000 (14000 series) (12 hrs)
  - Need and benefits of Compliance
  - Introduction to ISO 9001-2008 system
  - Benefits of ISO 9001-2008
  - Introduction and requirement of SA 8000
  
4. Introduction to Quality Control concepts (20 hrs)
  - How to start quality control systems
  - Accepted quality level (AQL), Calculation of AQL
  - Statistical Quality Control
  - Total quality management (TQM)
  - Cost of quality
  - Tools of quality

## LIST OF PRACTICALS

1. Analyzing test reports as per given specification of the buyer
2. Demonstration of basic fabric defects
3. Demonstration of sewing, finishing and packaging defects through a visit to an garment industrial house

## INSTRUCTIONAL STRATEGY

The teacher should take students to garment industries to show them various aspects of quality control of garments in the industry

## RECOMMENDED BOOKS

1. Managing Quality by SK Bhardwaj and PV Mehta; New Age Publisher, Delhi
2. ISO 9000 –Textile Committee Manual
3. Textile Testing by J.E. Booth

## SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Hrs)	Marks Allotted (%)
1	06	15
2	10	25
3	12	25
4	20	35
<b>Total</b>	<b>48</b>	<b>100</b>

## 5.5 ENVIRONMENTAL EDUCATION

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3 - -

### RATIONALE

Education about environment protection is a must for all the citizens. In addition, a diploma holder must have knowledge of different types of pollution caused by industries and construction activities so that he may help in balancing the eco system and controlling pollution by adopting pollution control measures. He should also be aware of environmental laws related to the control of pollution.

### DETAILED CONTENTS

1. Definition, Scope and Importance of Environmental Education (02 hrs)
2. Basics of ecology, biodiversity, eco system and sustainable development (03 hrs)
3. Sources of pollution - natural and manmade, causes, effects and control measures of pollution (air, water, noise, soil, radioactive and nuclear) and their units of measurement (12 hrs)
4. Solid waste management – Causes, effects and control measures of urban and industrial waste (06 hrs)
5. Mining and deforestation – Causes, effects and control measures (04 hrs)
6. Environmental Legislation - Water (prevention and control of pollution) Act 1974, Air (Prevention and Control of Pollution) Act 1981 and Environmental Protection Act 1986, Role and Function of State Pollution Control Board, Environmental Impact Assessment (EIA) (10 hrs)
7. Role of Non-conventional Energy Resources (Solar Energy, Wind Energy, Bio Energy, Hydro Energy) (04 hrs)
8. Current Issues in Environmental Pollution – Global Warming, Green House Effect, Depletion of Ozone Layer, Recycling of Material, Environmental Ethics, Rain Water Harvesting, Maintenance of Groundwater, Acid Rain, Carbon Credits (07 hrs)

### INSTRUCTIONAL STRATEGY

The contents will be covered through lecture cum discussion sessions. In addition, in order to have more appreciation of need for protection of environment, it is suggested that different activities pertaining to Environmental Education like video films, seminars, environmental awareness camps and expert lectures may also be organized.

## RECOMMENDED BOOKS

1. Environmental Engineering and Management by Suresh K Dhameja; SK Kataria and Sons, New Delhi.
2. Environmental Science by Dr. Suresh K Dhameja; SK Kataria and Sons, New Delhi.
3. Environmental and Pollution Awareness by Sharma BR; Satya Prakashan, New Delhi.
4. Environmental Protection Law and Policy in India by Thakur Kailash; Deep and Deep Publications, New Delhi.
5. Environmental Science by Deswal and Deswal; Dhanpat Rai and Co. (P) Ltd. Delhi.
6. Engineering Chemistry by Jain and Jain; Dhanpat Rai and Co. (P) Ltd. Delhi.
7. Environmental Studies by Erach Bharucha; UGC University Press.

## SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted for Lectures (Periods)	Marks Allotted (%)
1	02	04
2	03	06
3	12	24
4	06	12
5	04	10
6	10	20
7	04	10
8	07	14
<b>Total</b>	<b>48</b>	<b>100</b>

## 5.6 EMPLOYABILITY SKILLS – I

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### RATIONALE

The present day world requires professionals who are not only well qualified and competent but also possess good communication skills. Our diploma students not only need to possess subject related knowledge but also soft skills to get good jobs or to rise steadily at their work place. The objective of this subject is to prepare students for employability in job market and survive in cut throat competition among professionals.

### DETAILED CONTENTS

1. Writing skills (08 hrs)
  - i) Official and business correspondence
  - ii) Job application - covering letter and resume
  - iii) Report writing - key features and kinds
  
2. Oral Communication Skills (20 hrs)
  - i) Giving advice
  - ii) Making comparisons
  - iii) Agreeing and disagreeing
  - iv) Taking turns in conversation
  - v) Fixing and cancelling appointments
  
3. Generic Skills (04 hrs)
  - i) Stress management
  - ii) Time management
  - iii) Negotiations and conflict resolution
  - iv) Team work and leadership qualities



## 5.7 FABRIC SOURCING

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### RATIONALE

Realizing the growing needs of sourcing department in garment units, this subject gives exposure to the students about various fabric categories and their commercial names, identifying features etc.

### PRACTICAL EXERCISES

1. Students should make a workbook comprising of fabric swatches.
2. Students should collect identifying features for the swatches like count, GSM, fibre content etc.

**Note:** A viva voce examination shall be conducted at the end of the project for assessing the work of the students.

## **PERSONALITY DEVELOPMENT CAMP**

This is to be organized at a stretch for two to three days during fifth or sixth semester. Extension Lectures by experts or teachers from the polytechnic will be delivered on the following broad topics. There will be no examination for this subject.

1. Communication Skills
2. Correspondence and job finding/applying/thanks and follow-up
3. Resume Writing
4. Interview Techniques: In-Person Interviews; Telephonic Interview' Panel interviews; Group interviews and Video Conferencing etc.
5. Presentation Techniques
6. Group Discussions Techniques
7. Aspects of Personality Development
8. Motivation
9. Leadership
10. Stress Management
11. Time Management
12. Interpersonal Relationship
13. Health and Hygiene