

**GUJARAT TECHNOLOGICAL UNIVERSITY, AHMEDABAD, GUJARAT**  
**COURSE CURRICULUM**

Course Title: Clothing Construction  
(Code: 3315101)

Diploma Programmes in which this course is offered	Semester in which offered
Computer Aided Costume Design and Dress Making	<b>First Semester</b>

### 1. RATIONALE

This course will provide sound foundation for garment manufacturing techniques and is designed to develop skills in students related to body measurements using appropriate tools, sewing by non-automatic machine, application of appropriate constructional stitches, and preparation of fabric for clothing construction.

### 2. LIST OF COMPETENCIES

The course content should be taught and implemented with the aim to develop different types of skills leading to the achievement of the following competencies.

- i. **Prepare the garment as per measurement using appropriate tool, machine and technique**

### 3. TEACHING AND EXAMINATION SCHEME

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE	PA	ESE	PA	
2	0	4	6	70	30	40	60	<b>200</b>

**Legends:** L-Lecture; T – Tutorial/Teacher Guided Theory Practice; P - Practical; C – Credit;  
ESE -End Semester Examination; PA - Progressive Assessment.

#### 4. DETAILED COURSE CONTENTS

Unit	Major Learning Outcomes	Topics and Sub-topics
<b>Unit – I Introduction</b>	<p>1.1 Appreciate the role of garment in fashion industry.</p> <p>1.2 Describe garment manufacturing process chart and flow chart.</p>	<p>1.1 Definition of garment</p> <p>1.2 History and role of garment in human race.</p> <p>1.3 garment manufacturing process chart</p> <p>1.4 Garment manufacturing flow chart</p>
<b>Unit– II Non Automatic tools for garment manufacturing</b>	<p>2.1 Select suitable non automatic garment manufacturing tool for given application.</p> <p>2.2 Use appropriate non automatic garment manufacturing tool for given application.</p> <p>2.3 Maintain non automatic garment manufacturing tool as per given procedure.</p>	<p><b>2.1 Measuring Tools</b> Function, use and care of the following tools:</p> <p>2.1.1 Measuring tape</p> <p>2.1.2 Tailor’s square</p> <p>2.1.3 Right angled triangle</p> <p>2.1.4 Calculator</p> <p>2.1.5 French curve Set</p> <p>2.1.6 Set square</p> <p>2.1.7 Curve Rules</p> <p><b>2.2 Marking tools</b> Function, use and care of the following tools:</p> <p>2.2.1 Paper</p> <p>2.2.2 Pencil</p> <p>2.2.3 Fiber pens</p> <p>2.2.4 Rubber</p> <p>2.2.5 Compass</p> <p>2.2.6 Tracing wheel</p> <p>2.2.7 Pins</p> <p>2.2.8 Tailor’s chalk</p> <p>2.2.9 Pattern notcher</p> <p>2.2.10 Pattern punch</p> <p>2.2.11 Pattern books</p> <p>2.2.12 Pattern weights</p> <p>2.2.13 Model stands</p> <p><b>2.3 Cutting tools</b> Function, use and care of the following tools:</p> <p>2.3.1 Small shears</p> <p>2.3.2 Big shears</p> <p>2.3.3 Cutters</p> <p>2.3.4 Pinking shears</p> <p>2.3.5 Stitch opener</p> <p><b>2.4 Sewing tools</b> Function, use and care of the following tools:</p> <p>2.4.1 Bobbin &amp; Bobbin case</p> <p>2.4.2 Machine sewing needles</p> <p>2.4.3 Hand sewing needles</p> <p><b>2.5 Miscellaneous tools</b> Function, use and care of the following.</p> <p>2.5.1 Thimble</p> <p>2.5.2 Pin cushions</p>

Unit	Major Learning Outcomes	Topics and Sub-topics
		2.5.3 Thread 2.5.4 Ironing board 2.5.5 Iron 2.5.6 Bobbin winder
<b>Unit– III Sewing Machine</b>	3.1 Identify different parts of given sewing machine. 3.2 Use sewing machine to perform given operation on fabric. 3.3 Maintain sewing machine as per recommended procedure	3.1 History of sewing machine 3.2 Types of sewing machine 3.3 Parts and functions of sewing machine 3.4 Operation of sewing machine 3.5 Care & maintenance of sewing machine 3.6 Problems of stitch formation, problems of pucker and problems of damage to the fabric along the stitch line 3.7 Sewing area
<b>Unit-IV Body Measuremen t</b>	4.1 Take horizontal and vertical body measurement for garment making. 4.2 Take horizontal and vertical measurement from readymade garment. 4.3 Take horizontal and vertical measurement from standard chart for garment making. 4.4 Calculate all body measure from chest measurement.	4.1 Knowledge of various landmarks on the body, required for making garments. 4.2 Techniques of taking body measurements. 4.2.1 Directly from the body.(Vertical & Horizontal) 4.2.2 Indirectly form the readymade garments. 4.2.3 From standard size charts. 4.2.4 Technique of calculating all the measurements from chest measurement.
<b>Unit-V Fabric</b>	5.1 Select a suitable fabric for given application. 5.2 Prepare a given fabric for given application using appropriate technique.	5.1 Fabric widths 5.2 Grain lines 5.3 Preparation of fabric for clothing construction 5.3.1 Straightening 5.3.2 Tearing 5.3.3 Shrinking 5.4 Different types of fabrics and its application in clothing.
<b>Unit-VI Clothing Construction</b>	6.1 Stitch the given fabric as per given direction, using appropriate hand stitches. 6.2 Stitch the given fabric as per given direction, using appropriate machine stitches.	<b>6.1 Hand stitches</b> 6.1.1 Basting 6.1.1.1 Even basting 6.1.1.2 Uneven basting 6.1.2 Running stitch 6.1.3 Different types of hemming stitches 6.1.3.1 Blind hemming stitch 6.1.3.2 Simple hemming stitch <b>6.2 Machine stitches</b> 6.2.1 Plain Seam 6.2.2 Curved Seam 6.2. 3 Cornered 6.2.4 To join an inward corner 6.2.5 Trimming

Unit	Major Learning Outcomes	Topics and Sub-topics
		6.2.6 To trim corner 6.2.7 Clipping 6.2.8 Hand overcast 6.2.9 Zigzagged 6.2.10 Bias bound 6.2.11 Net bound 6.2.12 French seam 6.2.13 Flat felled seam 6.2.14 Self bound seam 6.2.15 Corded seams 6.2.16 Lapped seams 6.2.17 Fagotted seam 6.2.18 Double top stitched seam 6.2.19 Welt seam 6.2.20 Tuck seam 6.2.21 Slot seam 6.2.22 Seaming special fabrics( Velvet, Net, Georgette, 6.2.23 Fullness techniques <ul style="list-style-type: none"> <li>•Darts</li> <li>•Tucks</li> <li>•Pleats</li> <li>•Gathering</li> <li>•Shirring</li> <li>•Smocking</li> <li>•Ruffles</li> </ul>
<b>Unit-VII Finishing Techniques</b>	7.1 Perform the given finishing work on the stitched garment	7.1 Definition of neckline, Finishing of U, round, V and fancy neck line 7.2 Finishing of placket opening of upper and lower garment 7.3 Pockets( Definition of pocket, finishing of patch pocket, Slash pocket, Double welt pocket, welt pocket, flap pocket, in seam pocket, front heap pocket)
<b>Unit-VIII Fullness techniques</b>	8.1 Carry out the appropriate fullness work on the given fabric	8.1 Definition of fullness 8.2 techniques of controlling fullness through different varieties of darts, tucks, pleats, gathers, shearing, smocking and ruffles.
<b>Unit-IX Use of components</b>	9.1 Fix the given add on on the stitched garment	9.1 Knowledge of various components such as lace, braid, elastic, hook and loop fastening, Velcro, seam binding and tape, eyelets, zip fasteners, buttons, tack buttons, snap fasteners and rivets.

## 5. SUGGESTED SPECIFICATION TABLE WITH HOURS & MARKS (THEORY)

Unit No.	Unit Title	Teaching Hours	Distribution of Theory Marks			
			R Level	U Level	A Level	Total
I.	Introduction	02	05	00	00	05
II.	Non automatic tools for garment manufacturing	03	03	03	04	10
III.	Sewing machines.	04	03	03	06	12
IV.	Body measurement.	02	00	04	03	07
V.	Fabric.	02	00	02	03	05
VI.	Clothing Construction.	07	04	04	06	14
VII.	Finishing Techniques	04	02	02	03	07
VIII.	Fullness techniques	03	00	02	03	05
IX.	Use of components	01	02	00	03	05
	<b>Total</b>	<b>28</b>	<b>19</b>	<b>20</b>	<b>31</b>	<b>70</b>

### Legends:

R = Remembrance; U = Understanding; A = Application and above levels (Revised Bloom's Taxonomy)

## 6. SUGGESTED LIST OF EXERCISES/PRACTICALS

The exercises should be properly designed and implemented with an attempt to develop different types of skills leading to the achievement of the competency

S. No.	Unit No.	Exercises/Practical
1	III	Prepare a labeled outline diagram of sewing machine.
2	IV	Take body measurement of another person and note it in the file.
3	VI	Prepare sample of hand stitches (covered in theory) on given fabric.
4	VI	Prepare samples of machine stitches (covered in theory) on given fabric.
5	VII	Prepare samples of neck line finishing using piping and shape facing (any three)
6	VII	To make samples of pockets (Patch, side and cut)
7	VIII	Prepare samples of fullness technique (Simple dart, fish dart, vertical tuck, horizontal tuck, knife pleat, box pleat, inverted box pleat, gathering by hand and machine, smocking, and ruffles)
8	IX	Fix components such as zip, button and button hole, hook and eye and Velcroas directed on given garment

## 7. SUGGESTED LIST OF PROPOSED STUDENT ACTIVITIES

Following is the list of proposed student activities like: course/topic based seminars, internet based assignments, teacher guided self learning activities, course/library/internet/lab based mini-projects etc. These could be individual or group-based.

## 8. SUGGESTED LEARNING RESOURCES

### A. List of Books

S.No.	Author	Title of Books	Publication
1	Hamlyn	Macall's sewing in colour	Hamlyn
2	Glady Cunningham.	Singer sewing Book	Golden Pr
3		Complete guide to sewing	Reader digest
4	Evelyn A. Mansfield	Clothing construction	Houghton miffin 1953
5	Harold Carr and Barbara Latham	The technology of clothing manufacture	John Wiley & sons. 1994
6	Thomas (anna jacob)	The Art of Sewing	UBS Publication distributer Ltd.
7		Simplicity	
8	Isabel Sutherland Ed.	Home dress making	Pan Craft Book

### B. List of Major Equipment/ Instrument

Half and full shuttle Sewing machine.

## 9. COURSE CURRICULUM DEVELOPMENT COMMITTEE

### Faculty Members from Polytechnics

- **Prof. Ms. Ila. J. Dave** HOD CACDDM Dept. Sir B.P.T.I. Bhavnagar
- **Ms. Nirza A. Atrey** I/C HOD CACDDM, GGP, Ahmedabad
- **Ms. Kanchana P. Shah** I/C HOD CACDDM ,C.U. Shah Polytechnic , Surendranagar
- **Ms. Farjana V. Kugashiya** ,Lecturer ,CACDDM, GGP, Ahmedabad
- **Ms. Punita J. Virani** , Leturer, CACDDM, Sir B.P.T.I. Bhavnagar

### Co-ordinator and Faculty Member from NITTTR Bhopal

- **Prof. Mrs. Chanchal Mehra**, Associate Professor, Dept. of Vocational Education and Entrepreneurship Development, NITTTR, Bhopal