

**GUJARAT TECHNOLOGICAL UNIVERSITY, AHMEDABAD, GUJARAT**

**COURSE CURRICULUM  
COURSE TITLE: APPAREL QUALITY CONTROL  
(Code: 3345101)**

<b>Diploma Programmes in which this course is offered</b>	<b>Semester in which offered</b>
Computer Aided Costume Design And Dress Making	4 <sup>th</sup> Semester

**1. RATIONALE**

The need for quality products by customers is increasing day by day and garment industry is no different. This course tries to develop requisite competency and skills in by diploma holders to carry out inspection at various stages of garment construction viz. pre-production inspection of fabric, in work inspection etc. Thus after learning this course diploma holders would be able to ensure that quality is maintained during production and general quality checks that are essential before transit are carried out.

**2. COMPETENCY**

The course content should be taught and curriculum should be implemented with the aim to develop required skills so that students are able to acquire following competency:

- **Employ inspection and quality checks on apparel to ensure quality product.**

**3. COURSE OUTCOMES**

The theory should be taught and practical should be carried out in such a manner that students are able to acquire require learning out comes in cognitive, psychomotor and affective domain to demonstrate following course outcomes.

- Select appropriate standard and specification for dress making
- Apply requisite test for ensuring fabric quality
- Measure garments Shirt, Trouser, T-Shirt, and Jeans, flow charts
- Identify finishing defects

**4. TEACHING AND EXAMINATION SCHEME**

<b>Teaching Scheme (In Hours)</b>			<b>Total Credits (L+T+P)</b>	<b>Examination Scheme</b>				
<b>L</b>	<b>T</b>	<b>P</b>		<b>Theory Marks</b>		<b>Practical Marks</b>		<b>Total Marks</b>
<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>	<b>ESE</b>	<b>PA</b>	<b>ESE</b>	<b>PA</b>	
4	0	0	4	70	30	00	00	100

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

## 5. DETAILED COURSE CONTENT

Unit	Major Learning Outcomes (in cognitive domain )	Topics and Sub-topics
<b>Unit-I Introduction to quality</b>	1a. Appreciate the need for quality in dress making	1.1 Definition 1.2 Related terms 1.3 ISO 1.4 Quality Assurance 1.5 Quality Control 1.6 Quality Management
<b>Unit- II Standards and specifications</b>	2a. Select appropriate standard and specification for dress making	2.1 Standards 2.1.1 Type 2.1.1.1 National and International standards(AATCC, ASTM, ANSI, ISO, BSI, BIS) 2.1.2 Importance 2.1.3 Difference between various standards 2.1.4 Grade definition 2.2 Specification 2.2.1 Need and Importance 2.2.2 Types 2.2.3 Process of development 2.2.4 Tolerances, limits
<b>Unit- III Fabric Quality</b>	3a. Carry out inspection and grading of fabric	3.1 Fabric Inspection and grading 3.2 Fabric defects 3.3 Inspection machines/Equipment's 3.4 Grading of fabric 3.5 4 point and 10 point system
<b>Unit- IV Fabric Testing</b>	4a. Apply requisite test for ensuring fabric quality	4.1 Standard used 4.2 Equipment used 4.3 Types of Test: 4.3.1 Physical Tests 4.3.2 Color fastness tests
<b>Unit – V Role of Quality in Cutting and Fusing</b>	5a. Appreciate the role of quality in cutting and fusing department	5.1 Quality parameters 5.1.1 Marker making 5.1.2 Spreading 5.1.3 Cutting 5.1.4 Bundling 5.1.5 Ticketing 5.1.6 Fusing 5.2 Quality problems due to fusing.
<b>Unit-VI</b>	6a. Explain the inspection	6.1 Inspection Loop

Unit	Major Learning Outcomes (in cognitive domain )	Topics and Sub-topics
<b>Inspection Procedures in the Sewing room</b>	procedure in sewing room	6.2 Types of Inspections
<b>Unit- VII Garment Inspection Checkpoints</b>	7a. Identify Garment checkpoints	7.1 Key Inline checkpoints for standards Garment Types
<b>Unit-VIII Garment Measuring</b>	8a Measure garments	8.1 Measure garments 8.2 Shirt, Trouser, T-Shirt, and Jeans, flow charts
<b>Unit-IX Quality in Finishing room</b>	9a Identify finishing defects	9.1 Finishing Defects

## 6. 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 to Quality	3	1	2	0	3
II	Standard & Specifications	7	5	2	2	9
III	Fabric Quality	7	2	5	2	9
IV	Fabric Testing	7	2	5	2	9
V	Role of Quality in Cutting & Fusing	7	1	5	3	9
VI	Inspection procedures in sewing room	7	3	4	2	9
VII	Garment Inspection Checkpoints	7	5	4	0	9
VIII	Garment Measuring	7	1	4	4	9
IX	Quality in Finishing room	4	2	2	0	4
<b>Total Hrs</b>		<b>56</b>	<b>22</b>	<b>33</b>	<b>15</b>	<b>70</b>

**Legends:** R = Remember; U = Understand; A = Apply and above levels (Revised Bloom's taxonomy)

**Note:** This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

## 7. SUGGESTED LIST OF PRACTICAL/EXERCISES Not Applicable

## 8. SUGGESTED LIST OF STUDENT ACTIVITIES:

- i. Measure garments and record the findings in log book.
- ii. Produce specification sheets, flat drawings and tech-packs.
- iii. Collect the fabric swatches and perform tests and record the findings.
- iv. Carry out analysis of test reports as per given specification of the buyer
- v. Identify basic fabric defects in given sample
- vi. Identify sewing, finishing and packaging defects during the visit to a garment Industrial house

**9. SUGGESTED INSTRUCTIONAL STRATEGIES (If Any)**

- (i) Show samples, photographs and/or video films to depict the good and bad examples of quality
- (ii) Arrange a visit to nearby garment factory/boutique to show samples of good and bad quality products with their defects and to show the different measuring/testing procedures and techniques.

**10. SUGGESTED LEARNING RESOURCES****A. List of Books**

Sr.No.	Title of Book	Author	Publication
1.	Managing Quality in Apparel Industry	Mehta & Bharadwaj	New Age Publisher, Delhi
2.	Handbook of Quality	Joseph Juran	Mc Graw Hill ISBN 978-0-07-0162973-7
3.	Principles of Textile Testing	J.E. Booth	Published by CBS Publishers & Distributors Pvt. Ltd., 1996

**B. List of Major Equipment/ Instrument**

N.A

**C. List of Software/Learning Websites**

- i. [www.bis.org.in](http://www.bis.org.in)
- ii. [www.iso.org](http://www.iso.org)
- iii. [www.qci.org.in](http://www.qci.org.in)

**11. COURSE CURRICULUM DEVELOPMENT COMMITTEE****Faculty Members from Polytechnics**

- **Prof. (Ms.) Neerja Atrey**, Lecturer CACDDM, Govt. Polytechnic for Girls, Ahmedabad
- **Prof. Dr. J. R. Jhala**, I/C HOD CACDDM, A.V.P.T.I., Rajkot.
- **Prof. (Ms.) K. P. Shah**, I/C HOD CACDDM, C U Shah Polytechnic, Surendranagar
- **Prof. Ms. R. M. Neog**, Lecturer CACDDM, Government Polytechnic, Dahod.
- **Prof. Ms. M. B. Panchaliya**, Lecturer CACDDM, B.P.T.I., Bhavnagar.

**Faculty Members from NIFT Gandhinagar.**

- **Prof. Pavan Godiawala**, Professor, Fashion Technology.
- **Prof. Nupur Chopra**, Assistant Professor, Fashion Technology

**Coordinator and Faculty Members from NITTTR Bhopal**

- **Dr Shashi Kant Gupta**, Professor and Coordinator for State of Gujarat.
- **Prof. (Mrs.) Chanchal Mehra**, Associate Professor, Department of Vocational Education and Entrepreneurship Development