



**SEVA MANDAL EDUCATION SOCIETY'S  
Dr. BHANUBEN MAHENDRA NANAVATI COLLEGE OF HOME SCIENCE  
(Autonomous)**

**NAAC Re-accredited 'A+' Grade with CGPA 3.69/4 (3<sup>rd</sup> Cycle)  
UGC Status: College with Potential for Excellence  
BEST COLLEGE AWARD 2016-17 adjudged BY S.N.D.T. Women's University  
338, R.A Kidwai Road, Matunga, Mumbai 400019**

# **Syllabus –Vth Semester Academic year- 2021-2022**

**Department of Textile Science and Apparel Design  
(UG)**



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**STRUCTURE**

<b>TYBSC- Department of Textile Science and Apparel Design</b>						
<b>SEMESTER 5 (Structure and Weightage)</b>						
<b>Course and Code</b>	<b>Total Credits</b>	<b>Th C</b>	<b>Pr C</b>	<b>Int</b>	<b>Ext</b>	<b>Total</b>
TSAD501-Basic Fashion Illustration	4	-	4	100		100
TSAD502-Textile and Garment Quality Control	4	2	2	50	50	100
TSAD503- Fashion Apparel Design	4		4	100	-	100
TSAD504- Textile Chemical Processing – I	4	3	1	50	50	100
TSAD505-Recent Advances in Textile Science and Apparel Design (Seminar)	2		2	50	50	100
TSAD505-Women`s Study	2					
<b>TOTAL</b>	<b>20</b>	<b>5</b>	<b>11</b>	<b>250</b>	<b>250</b>	<b>500</b>

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**PROGRAMME: B.Sc. in Home Science**

**Department of Textile Science and Apparel Design**

**Semester V**

**Basic Fashion Illustration**

**Course Description-**

This course includes the introduction and basic concepts related to designing. This course will orient the learner to understand proportions of human anatomy, its division according to heads required for fashion illustration and its movements. Further, this course helps the learner to understand illustrating techniques for fashion presentation on paper with the use of different drawing and colouring tools.

**Course Outcome-**The course will enable students to:

Understand the concept of fashion illustration and fashion designing.

Impart drawing skills in making of Basic Silhouettes and variation.

Enable the students to develop skills in designing fashion accessories.

Learn various techniques of drawing and colouring to present a fashion sketch

Code	Course	TC	Th	PR	Int	Ext	Total
<b>TSAD501</b>	<b>Basic Fashion Illustration</b>	<b>4</b>		<b>4</b>	<b>100</b>		<b>100</b>

## Syllabus

Module No	Objectives	Content	Evaluation
1	The learners will develop the skills in making of Croqui and its movement.	<p>1. Basics of Designing – elements and principles of design</p> <p>2. Human Anatomy</p> <ul style="list-style-type: none"> <li>• Introduction of human anatomy and proportions</li> </ul> <p><b>3. Croqui and Movement</b></p> <p>Croqui and movement- showing different movements and mechanical poses (leg and hand movement, front back and <math>\frac{3}{4}</math> view), 8 head, 10 head and 12 head croqui for women, men and children.</p>	<p>10 marks</p> <p>15 marks</p>

Module No	Objective	Content	Evaluation
2	The learners will understand the law of fabric suspension	<p><b>1. Accessory Designing</b></p> <ul style="list-style-type: none"> <li>• Accessory details to show Indian and western look that go well with the garment. (1 or 2 examples to give basic concepts) such as jewelry, bags, shoes, hats, watches, purses, umbrella, hair styles etc.</li> </ul> <p><b>2. Basic Necklines, collars, sleeves and Variations</b></p> <ul style="list-style-type: none"> <li>• Drawing of different neckline patterns (Any 5)</li> <li>• Drawing of different collars patterns (Any 5)</li> <li>• Drawing of different sleeves patterns (Any 5)</li> </ul> <p><b>3. Law of Fabric Suspension</b></p> <ul style="list-style-type: none"> <li>• Rendering different fabrics and falls such as cotton, chiffon, silk, pleats, frills, ruffles, gathers, Denim, leather, fur, terry pile effects etc.</li> </ul>	<p>5 marks</p> <p>10 marks</p> <p>10 marks</p>

Module No	Objective	Content	Evaluation
3	The learners will learn to illustrate according to the type of material and design details.	<p><b>1. Basics of Design details</b></p> <ul style="list-style-type: none"> <li>• Possibilities of different patterns in different sizes and their dress details such a print, weaves, embroideries etc. (Make 10 samples of the above)</li> </ul> <p><b>2. Basic Silhouettes and Variations</b></p> <ul style="list-style-type: none"> <li>• 5 basic types of silhouettes of women garments.</li> <li>• Variation in designing. (Any 5 sets of basic women's, men and children garments designs)</li> </ul>	10 marks  15 marks

Module No	Objective	Content	Evaluation
4	The learners will understand the concept of suitable colors for various age groups and personality types.	<p><b>1. Preparation of Mood board, colour palette, collection of fabric swatches for the theme- based fashion Apparel Designing.</b></p> <p><b>2. Illustration of Theme Based Fashion Apparel for Women.</b></p> <ul style="list-style-type: none"> <li>• Wedding wear</li> <li>• Sports wear</li> <li>• Swim Wear</li> <li>• Casual Wear</li> <li>• Evening Wear and Party Wear</li> <li>• Street Wear</li> </ul> <p><b>(Illustrate any 2 themes of the above)</b></p>	10 marks  15 marks

Evaluation	Details	Marks
Internal	Internals: All Four Modules of 25 marks each(Continuous Evaluation)	100 marks
External	No External examination	
	<b>Total marks</b>	<b>100 Marks</b>

**References:**

1. Pooja Khurana, Monika S. (2007). *Introduction to Fashion Technology*. Laxmi Publications.
2. Noel Chapman, Judith Cheek (2012), *Creative Fashion Drawing: A Complete Guide to Design and Illustration Styles* (Essential Guide to Drawing), Arcturus Publishing Ltd
3. Maite Lafuent (2008). *Fashion Illustration Techniques* (Drawing), Taschen GmbH Publishing
4. Ranjana singhal, Kannaki Bharali (2010) *Fashion Rendering*. Om books publications
5. Dilip Karampuri , Jayashree Bhosale (2012). *Liberty Fashion Sketch Book*, Liberty Publication
6. Zeshu Takamura (2012). *Fashion Illustration Techniques*, Rockport Publishers
7. McKelvey, Kathryn Winslow, Janine, (2007), *Illustrating fashion*, Blackwell Publishers Ltd

**Web Refences:**

<https://www.skillshare.com/browse/fashion-illustration>

[https://www.youtube.com/watch?v=\\_uUNMHFSsBk](https://www.youtube.com/watch?v=_uUNMHFSsBk)

<https://www.youtube.com/watch?v=gNNFTW8yO8s>

<https://www.cmuse.org/learn-fashion-design-lesson-online/>

<https://www.fashionillustrationtribe.com/>

<https://www.creativehubco.com/blog/2019/4/11/3-best-apps-for-fashion-illustration>

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**PROGRAMME: B.Sc. in Home Science**

**Department of Textile Science and Apparel Design**

**Semester V**

**Textile & Garment Quality Control**

**OBJECTIVES:**

This course will enable students to-

1. Acquire knowledge of different physical properties of fiber, yarn and fabric.
2. Analyze the utility of different physical testing equipment.
3. Analyze and interpret the results obtained by carrying out various tests.

**Course Outcome:**

Will enable students to understand different properties of fiber and their end uses

They will be able to select fabric according to end uses

They can handle different testing instruments/ equipments

Students will be able to carry out different tests required to check the quality of fiber, yarn fabric or garment

Will help them to control the manufacturing process

Code	Course	TC	Th C	Pr C	Int M	Ext M	Total
TSAD502	Textile & Garment Quality Control	4	2	2	50	50	100

## Theory

Module No.	Objective	Content	Evaluation
1	<p>This module will highlight - Importance of standards and quality control, specifications. Selection of Samples for testing. Importance environmental conditions for Testing. Acquire Knowledge of different physical properties of fibers. Develop an understanding of utility of different physical testing equipment Enable students to analyze and interpret the results obtained by carrying out various tests.</p>	<ol style="list-style-type: none"> <li>1. 1. Definition and importance of standards and quality control, specifications and standards laid by institutions of Textiles (IS, ISO, B.S, E.N., DIN, AATCC, ASTM).</li> <li>2. <b>(Centre for Excellence – Ministry of Textiles, Govt. of India)</b></li> <li>3. <b>e-copy of Standards and Test Methods which can be shared with students.</b></li> <li>4. Testing and quality control institutes in India and Abroad.</li> <li>5. <b>sampling</b> - Selection of Samples for Fabric Sampling</li> <li>6. Moisture Relations And Testing (Environmental Conditions For Testing)</li> <li>7. Definition: Moisture regain, Moisture content, standard atmosphere, Testing atmosphere, Absolute humidity.</li> <li>8. Relative Humidity: Determination of relative humidity.</li> <li>9. Factors affecting relative humidity Moisture in Textiles: Importance of moisture regain and moisture content, Effect of moisture on Textile Properties, Factors affecting regain of textile materials, Measurement of regain.</li> <li>10. <b>FIBER TESTING</b> - Definition, objectives and methods of testing staple length, effective length, and percentage short fibers by Comb Sorter method. Resiliency.</li> <li>11. measurement of fiber length.</li> <li>12. Interpretation of results according to end use.</li> </ol>	<p><b>Assignment Quiz</b> 25 marks</p>
Module No.	Objective	Content	Evaluation





<p style="text-align: center;">2</p> <p style="text-align: center;">3</p>	<p>The students will -</p> <p>Acquire Knowledge of different physical properties of fabrics.</p> <p>Develop an understanding of utility of different physical testing equipment's</p> <p>Enable students to analyze and interpret the results obtained by carrying out various tests.</p> <p>Inspection with reference to quality Control in Apparel Industry.</p> <p>Develop an understanding of utility of different materials testing.</p> <p>To understand the working of drape meter &amp; Bursting strength tester</p>	<p>13. Yarn testing- Definition and objectives of testing, Methods of Testing yarn Liner density in different systems- Direct &amp; indirect, twist and crimp.</p> <p>8. Explanation of Load, breaking load, stress-strain, tenacity, elastic recovery, Count Strength Product (CSP).</p> <p>14. Interpretation of results according to end use.</p> <p>15. Fabric Testing- Definition and objectives of testing, Methods of testing fabric count, thickness, crease recovery, stiffness.</p> <p>16. CRL, CRT, CRE principle for tensile strength testing machine. Tensile strength tester (CRL &amp; CRT type), Tear strength tester (Elmendorf)</p> <p>17. .Color Fastness Tests-</p> <p>18. Colorfastness to Washing, (5 tests)</p> <p>19. Colorfastness to Rubbing</p> <p>20. 12.Dimensional stability</p> <p>21. Interpretation of results according to end use.</p> <p><b>22. 13.introduction &amp; Demonstration on working of drape meter &amp; Bursting Strength tester [If physical college starts]</b></p> <p><b>23. Visit will be organised if college starts offline.</b></p> <p><b>24. 14. 'Sustainable material evaluation'</b></p> <p>25. 15.Garment Testing- Inspection with reference to quality control in Apparel Industry. Fabric inspection, correlation between fabric quality and apparel quality.</p> <p>26. Sewing threads, zippers, buttons and interlining. In process inspection (in brief).</p> <p>27. Interpretation of results according to end use.</p>	<p style="text-align: center;">Assignment Quiz 25 marks</p>
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## Practical

Module No.	Objective	Content	Evaluation
3	<p><b>This module will enable the students to</b></p> <ol style="list-style-type: none"> <li>1. Develop an understanding of different testing methods for testing textile materials.</li> <li>2. Acquire skill of operating testing equipment's.</li> <li>3. Learn to interpret and compare the results obtained by testing various fabrics.</li> </ol>	<ol style="list-style-type: none"> <li>1. Staple length (2 samples)</li> <li>2. Cotton yarn count</li> <li>3. Yarn denier</li> <li>4. Yarn twist (Ply yarn &amp; Single yarn)</li> <li>5. Crimp (1 sample)</li> <li>6. Yarn Strength (Hank/Lea) &amp; CSP</li> <li>7. (Sewing thread to be tested as one of the sample where ever possible)</li> </ol>	Assignment Quiz 25 marks

Module No.	Objective	Content	Evaluation
4	<p>The students will be able -</p> <p>To inspect, measure and evaluate characteristics and properties of textile materials.</p> <p>Evaluate fabric performance, to determine its end use.</p> <p>Assess textile product performance &amp; to use test result to make predictions about product performance.</p>	<ol style="list-style-type: none"> <li>1. Fabric count (2 samples)</li> <li>2. Weight/ Sq. meter(4 samples- Woven, Knitted, Interlining, Blended)</li> <li>3. Thickness (Any 3 samples- Woven/ Knitted/ Interlining/ Blended)</li> <li>4. Tensile strength (2 samples- Cotton, Blended)</li> <li>5. Tearing strength (2 samples-Cotton)</li> <li>6. Crease recovery (2 samples- Cotton)</li> <li>7. Stiffness</li> <li>8. Dimensional stability (Cotton)</li> <li>9. Color fastness to Washing (Any one from 5 tests)</li> <li>10. Color fastness to Rubbing</li> </ol>	Assignment Quiz (25 marks)

**EVALUATION:**

	<b>Details</b>	<b>Evaluation</b>
Internal	<b>Internal TH=25</b> <b>Internal PR=25</b>	<b>50 marks</b>
External	<b>Final exam</b>	<b>50 marks</b>
	<b>Total marks</b>	<b>100 Marks</b>

**REFERENCES:**

- 1 Angappan P. (1990) Physical Testing, Vol. 2, Revised, S. S. M. Institute of Textile Technology.
- 2 A.S.T.M. – Standards, American Society for testing materials, Philadelphia, New York.
- 3 BIS Handbook of Textile Testing, Part 4, Bureau of Indian Standards, New Delhi, India.
- 4 Booth J.E. (1982) Principles of Textiles Testing, Butterworth Scientific, London.
- 5 Collier Billie, Epps, Helen (1999) Textile Testing and Analysis, Upper Saddle River, Merrill Publishing.
- 6 Goswami, Martindi, Scandino (1977) Textile Yarns - Technology, structure and application, Wiley Inker Science Pub.
- 7 Grover & Hamby (1990) The Hand Book of Textile Testing and Quality Control, Wiley Fasting Pvt. Ltd., New Delhi, India.
- 8 I.S.I. Bulletin, Indian Standard Institution, New Delhi, India.
- 9 Kadolph, Sara (1992) Quality Assurance for Textiles & Apparel, 2nd Ed., Fairchild Publications, Inc., New York.
- 10 M.L. Joseph (1976) The Introductory Textile Science, Holt, Rinehart and Winston, New York.
- 11 Mehta P.V, Bharadwaj S.K., Managing Quality in Apparel Industry, New Age International Pvt. Ltd., Pune, India.
- 12 Mehta Pradip V. (1992) An Introduction to Quality Control for Apparel Industry. Milwaukee ASQC / Marcel Dekker Inc.
- 13 Skinkle. H. (1967) Textile Testing, Taraporewala & Sons, Bombay, India.
- 14 Sundaram V. (1979) Handbook of Methods of Tests for cotton fibers, yarns and fabrics, 2 rev ed, C T R L, Bombay, India.

## Online books available

On <https://textilestudycenter.com/library/>

### Textile Testing

1. A Practical Guide to Textile Testing
2. Physical Testing of Textiles
3. Chemical Testing of

### Textile Apparel Manufacturing

### Engineering

1. An introduction to quality control for the apparel industry by Pradip V Meht
2. An introduction to quality control for the apparel industry

### Handbook of Textile Testing and Quality Control

**Title:** Handbook of Textile Testing and Quality Control  
**Author:** Grover, Elliot B. (Elliot Brown), 1906-1997  
**Author:** Hamby, Dame S. (Dame Scott), 1920-  
**Note:** New York: Textile Book Publishers, 1960

**Link:** [page images at HathiTrust](#)

**Stable link here:** <https://onlinebooks.library.upenn.edu/webbin/book/lookupid?key=olbp67400>

**Subject:** [Textile fabrics -- Testing](#)

**Subject:** [Textile industry -- Quality control](#)

**Call number:** [TS1449 .G75](#)

**Other copies:** Look for editions of this book at [your library](#), or [elsewhere](#).

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**PROGRAMME:**

**B.Sc. in Home Science**

**Department of Textile**

**Science and Apparel**

**Design**

**Course Description-**

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This course offers skills and knowledge of constructing various types of fashion garments. The students acquire skills in handling various types of fashion fabrics. And understands flat pattern method to design garments for self and others. The students also learn to finish the garments as per standard method. This course gives lot of freedom to students for creativity and innovation

**Course Outcome- The course will enable students to:**

be able to design, select fabric and trimmings as per fashion trends.

adapt basic patterns and stitch various garments by standard flat pattern method .

procure suitable fabrics, cut, stitch and finish the garment.

be able to handle and use lining and trimmings and other accessories.

Code	Course	TC	Th	PR	Int	Ext	Total
<b>TSAD 503</b>	Fashion Apparel Design	4		4	100		100

Module No	Objectives	Content	Evaluation
<b>1</b>	<p>The learners will -</p> <ul style="list-style-type: none"> <li>• be able to design, select fabric and trimmings as per fashion trends.</li> </ul>	<p>Construct the following Apparels considering suitability of patterns Personality wise.</p> <ul style="list-style-type: none"> <li>• Salwar - Pattern to be selected as per fashion trend.</li> <li>• Kameez/ Designer Kurta -</li> </ul>	<p>25 marks</p> <p>(10+15)</p>



	<ul style="list-style-type: none"> <li>Will adapt basic patterns and stitch salwar and kurta by standard methods</li> </ul>	Any Designer pattern with fancy neckline and sleeves.	
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Module No	Objectives	Content	Evaluation
2	<p>The learners will -</p> <ul style="list-style-type: none"> <li>learn the principles of flat pattern method for yokes and fullness.</li> <li>be able to draft, cut and stitch different types of collars and sleeves.</li> <li>adapt the basic skirt draft to different patterns and construct the same.</li> </ul>	<p>Construct the following Fashion Apparels as per current trends.</p> <ul style="list-style-type: none"> <li>Western Top with suitable fullness, yoke, Collar and sleeves</li> <li>Skirt :Pattern with Pleats/ Yoke &amp; gathers /Wrapper round/ Umbrella /Tiered</li> </ul>	<p><b>25 marks</b></p> <p>(15+10)</p>

Module No	Objectives	Content	Evaluation
3	<p>The learners will -</p> <ul style="list-style-type: none"> <li>be able to adapt the basic block to western outfit/jacket.</li> <li>procure suitable fabrics, cut, and stitch and finish the garment</li> </ul>	<p>Construct the following Fashion Apparels as per current trends-</p> <ul style="list-style-type: none"> <li>Western Outfit (1piece) OR</li> <li>Jacket: Pattern with Princess line or as per fashion trend.</li> </ul>	25 marks

	by standard methods.		
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<b>Module No</b>	<b>Objectives</b>	<b>Content</b>	<b>Evaluation</b>
4	<p>The learners will -</p> <ul style="list-style-type: none"> <li>• Will design, adapt, cut, stitch and finish the party wear garment as per fashion trends.</li> <li>• Be able to handle and use lining and trimmings</li> </ul>	<p>Construct the following Fashion Apparels as per current trends.</p> <ul style="list-style-type: none"> <li>• Kids Wear-Party Frock/ Gown</li> </ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> <li>• Party wear Pattern with lining &amp; use of Trimmings Frills/Ruffles/laces/ Show Buttons etc.</li> </ul>	<b>25 marks</b>

<b>Evaluation</b>	<b>Details</b>	<b>Marks</b>
Internal	Total of all the marks of the garments and journal work to be converted out of 75 Marks. & Unit Test - 25 marks. Total =100	<b>100</b>
	<b>Total marks</b>	<b>100 Marks</b>

**Note: For the Unit Test ready Basic blocks to be used.**

## **References:**

1. Aldrich Winfred, (2007) Fabric form and flat pattern cutting, Oxford Blackwell Science Ltd.
2. Armstrong Helen Joseph,( 2006 ),Pattern Making for Fashion Design ,3<sup>rd</sup> Edition, New Jersey Prentice Hall Inc.
3. Armstrong Helen Joseph (2009) Patternmaking for Fashion Design (with DVD) (Fashion Series) Hardcover-spiral, New Jersey Prentice Hall Inc.
4. Armstrong Helen Joseph (2013) Patternmaking for Fashion | Fifth Edition | By Pearson Paperback ,New Jersey Prentice Hall Inc.
5. Sumathi G.J, (2002), Elements Of Fashion And Apparel Design Paperback, New Age International Publisher.
6. Bray Natalie,( 1978), Dress Fitting (Basic Principles and Practice) ,Graduate Publishing.
7. Bray Natalie, (1979),Dress Pattern Designing ,4th Edition, Ravada Publishing.
8. Bray Natalie, (1978) More Dress Pattern Designing, Ravada Publishing.
9. Cambell H. & Davies M.S, (1986 ),Designing Patterns, A Fresh Approach to Pattern Cutting, Australian Edition, A.E.Press Melbourne
10. Cooklin Gerry, Pattern cutting for women's future wear , Blackwell Sciences.
11. Jindal Ritu, (1989 ),Hand Book for Fabric Designing ,Mittal Publication, New Delhi
12. .Norma Hollen & Kundel, (1993), Pattern Making by Flat Pattern Method ,7th Ed. Macmillan Publishing Co. New Co. New York.
13. Reader's Digest,(1976) Complete Guide to Sewing ,Reader's Digest Association.
14. Zarpakar, (1980), System of Cutting ,Navneet Pub. Ltd.

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**PROGRAMME: B.Sc. in Home Science**

**Department of**

**Textile Science**

**and Appare de**

**Semester V**

**Course Description-**

**Textile Chemical  
Processing – I**

This course is about learning chemical structures of textile fibres, the colour classes used for textile colouration and chemistry of their application on natural as well as synthetic fibres. This course will orient the learner about the theory of textile colouration, functions of various colouration and printing auxiliaries used in textile chemical processing. It also helps the learner to understand the functions of different machineries used in the industry for the colouration of textiles at various stages.

**Course Outcome-The course will enable students to:**

- Learn chemical structures and reaction mechanism of colours used for textiles
- Understand the selection and application of colours and chemicals to be applied on various textile fibers.
- Understand the role of auxiliaries in textile colouration and printing.
- Identify the colour classes and colouration methods to be used on different textile fibers.
- Learn the operation and mechanism of machinery used for colouration of textiles at different stages.
- Understand the concept of color fastness properties of coloured fabrics and its importance

Code	Course	TC	Th	PR	Int	Ext	Total
<b>TSAD504</b>	<b>Textile Chemical Processing - I</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>50</b>	<b>50</b>	<b>100</b>

## Syllabus

Module No.	Objective	Content	Evaluation
1	The students will be able to 1. Understand the chemical structure and reaction of fibers. 2. learn the chemical constitution of various colours used in textile colouration	<p><b>1. Introduction to Chemistry of Fibers</b> like Cotton, Wool</p> <ul style="list-style-type: none"> <li>• Cotton</li> <li>- Chemical composition of cotton (Structure and groups, degree of polymerization),</li> <li>- Hydrolysis and Oxidation of cotton (Hydrocellulose and oxy-cellulose formation)</li> <li>- Action of alkali on cotton.</li> <li>• Wool</li> <li>- Structure of wool (Linkages and bonds)</li> <li>- Chemical composition of wool.</li> <li>- Reaction of wool with acids and alkalis.</li> </ul> <p><b>2. Introduction to Dyes/colours</b>-Definition of dyes, auxochrome, chromophore and their basic concepts.</p> <p>Phenomenon of colouration. Classification based on their methods of application.</p>	Unit Test – 25 Marks

Module No.	Objective	Content	Evaluation
2	The students will be able to understand the mechanism of textile colouration according to different classes	<p><b>Study of different classes of colours:</b></p> <p>Dyeing of different fibres with different colours - Direct, Acid, Vat, Disperse, Reactive, Basic and Pigment colours in detail with reaction mechanism and fastness properties.</p> <p>Effect of temperature, time, concentration, pH, exhausting and retarding agents on dyeing</p>	Quiz 25 Marks



Module No	Objective	Content	Evaluation
3	The students will- be able to gain knowledge of the working principle of textile colouration machinery and get oriented to the various auxiliaries used in textile colouration and printing.	<p><b>Methods of Dyeing Textile Material &amp; Role of Auxiliaries:</b></p> <p><b>1. Methods of colouration of textile material</b></p> <ul style="list-style-type: none"> <li>● Working principle of colouration machinery</li> <li>● Colouration of textile materials at different stages: Stock, dope, yarn, piece. Union and Cross colouration.</li> <li>● Machinery used for textile colouration:</li> <li>● Fibre, Yarn, piece, garment - Jigger, winch, Jet, Beam, Padding mangles, High Temperature – High Pressure, Garment colouration machine</li> <li>● Role of Auxiliaries in colouration and Printing Detergents, diazo stabilisers, carriers, wetting agents, solvents, thickeners, de-foaming agents, oxidizing and reducing agents, swelling agents/hygroscopic agents, washing off agents, binder, dye fixing agents, levelling agents, migration inhibitors, printing softeners</li> </ul>	Quiz- 25 Marks

**PRACTICAL:**

Module No.	Objective	Content	Evaluation
4	Learners will be able to gain practical knowledge regarding dyeing of different fibers with different class of dyes.	<p><b>Application of colours on different textile fibers</b></p> <p><b>1. Use 1%, 2%, 3%, 4% &amp; 5 % shades - any two/students</b></p> <ul style="list-style-type: none"> <li>● Direct colours on cotton /Viscose rayon/ jute.</li> <li>● Acid colours on silk/ wool /Nylon.</li> <li>● Vat colours on cotton /Viscose rayon / jute.</li> <li>● Reactive colours (Hot/ Cold Brand) on cotton.</li> <li>● <b>Colouration of polyester/cellulose blend with suitable class of colours</b></li> </ul>	Regular class work - 15 marks. Unit Test based on practical – 10 marks (colouration of any one class of colours on any 1 fibre)





		<b>(Any two blends) Union or Cross colouration</b>	
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<b>Evaluation</b>	<b>Details</b>	<b>Marks</b>
Internal	Total of Module 1, 2, 3 and 4 = $100/2 = 50$	50 marks
External	Final exam Theory	50 marks
	<b>Total marks</b>	<b>100 Marks</b>

## References

1. Venkataramen K. (1978) Chemistry of Synthetic Dyes, 8 Vols. New York Academic Press
2. Robert R Mather Roger H Wardman (2010) The Chemistry of Textile Fibres, Royal Society of Chemistry
3. Chitra Chowdhary, Meena Gupta (2012) Textile Chemical Processing, Crescent Publishing Corporation
4. Corbman B. P. and Potter M.D. (1975) *Textiles- Fiber to Fabrics* (5th Ed.). McGraw Hill Book Company. New York.
5. Peters R.H. (1975) *Textile Chemistry*, Vol. 1, 2, 3, American Elsevier Publishing Company New York.
6. Moncrieff R.W. (1975) *Man-made Fibers* (6th Ed.) John Wiley and Sons New York.
7. Shenai V. A. (1973) *Chemistry of dyes and Principles of dyeing* Vol. II (3rd Ed.). Sevak Publications, Mumbai – 400 031.
8. **Robert R Mather Et Al (2015). Chemistry Of Textile Fibres 2nd Edition by, Royal Society of Chemistry**

**SEVA MANDAL EDUCATION SOCIETY'S  
DR. BHANUBEN MAHENDRA NANAVATI COLLEGE OF HOME SCIENCE  
(AUTONOMOUS)**

**NAAC Re-accredited 'A+' Grade with CGPA 3.69 / 4 (3<sup>rd</sup> Cycle)**

**UGC Status: College with Potential for Excellence**

**BEST COLLEGE AWARD 2016-17: Adjudged by S.N.D.T. Women's University  
338, R.A. Kidwai Road, Matunga, Mumbai – 400019**

**PROGRAMME: B.Sc. in Home Science**

**Department of Textile Science & Apparel Design**

**Semester V**

**Subject-** Recent Advances in TSAD

**Course Description-** This is research based subject where students are expected to review research papers on current topics, or latest development, researches in the field of textiles and Fashion. Study those papers, understand it and summarise it, and give a presentation on it.

Students can also conduct survey to support their study depending on the topic. Each student has to select one latest topic related to the subject, collect information from literature, industry, library and other sources, compile it and present it in class.

**Objectives:**

1. Students learn to trace reference material, analyze, evaluate and condense articles, reports or research articles.
2. Students gain experience of group discussion on various topics.
3. The learner develops ability to collect and effectively present information before students.
4. The learner learns to prepare review and present on selected articles.

**Course Outcome-**The course will enable students to:

- To gain knowledge about recent happenings in the field of textiles
- To understand different processes in textiles
- To be able to review the papers
- This enables them to develop their writing & presentation skills

Code	Course	TC	Th C	Pr C	Int M	Ext M	Total
TSAD505	Recent advances in Textile Science & Apparel Design	2	-	2	50		50

**EVALUATION: (For Practical)****Student's presentation to be evaluated based on the given format –**

	<b>Details</b>	<b>Evaluation</b>
Internal	<b>Student's presentation to be evaluated based on the given format –</b> Language/ Body language - 10 marks Audio Visual Aids - 10 marks References / Bibliography - 20 marks Overall Presentation - 20 marks File Matter and Presentation - 20 marks Ability to Explain the Topic - 10 marks Ability to answer the audience's queries - <u>10 marks</u> <b>Total - 100 marks – divide by 2 = 50 marks</b> <b>Note: Only internal evaluation, no examination</b>	<b>50 Marks</b>
External	<b>No exam</b>	
	<b>Total marks</b>	<b>50 Marks</b>