

DISCIPLINE SPECIFIC ELECTIVE
DSE HH 5D2: Understanding Fabrics

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course(if any)
		Lecture	Tutorial	Practical/ Practice		
Understanding Fabrics	4	2	0	2	XII Pass	Appeared in Textile Science

Learning Objectives

- To briefly study the fabric components.
- To enhance awareness of various commercially available fabrics.
- To understand the properties and end uses of the various types of fabrics.

Learning Outcomes

The students would be able to:

- Understand the components of a textile fabric.
- Identify the various commercially available fabrics.
- Appropriately select fabrics based on their properties, cost and recommended end use.

SYLLABUS OF HH 5D2

THEORY
(Credits 2; Hours 30)

UNIT I: Fabric components

7 Hours

In this unit, students will be able to understand the basics of fibres, yarns and fabric.

- Fibres and yarns
- Methods of fabric construction
- Fabric finishing- dyeing, printing, aesthetic and functional finishes

UNIT II: Commercially important woven fabrics: Identification, properties and end use **14 Hours**

In this unit, students will gain an understanding of various types of woven fabrics

- **Cotton and other Cellulosic Fabrics**
 - Light weight fabrics- Mulmul, Voile, Organdy, etc.
 - Medium weight fabrics- Cambric, Poplin, Cotton Rubia, Denim, Chambray, Seer-sucker, Eyelash doobby, Schiffli, Jute, Linen, etc.
 - Heavy weight fabrics- Canvas, Casement, Gabardine, Damask, Corduroy, Velvet, Terry, etc.

- **Silk and Wool fabrics**
 - Lightweight fabrics- Silk Crepe, De'chine, Georgette, Chiffon, Organza, etc.
 - Medium/Heavy weight fabrics- Flat silk, Satin, Taffeta, Dupion, Shantung, Raw silk, Tussar silk, Habutai silk, Tweed, Wool twill
- **Man-made fibre and blended fabrics**
 - Art silk, Lizzy-Bizzy, Terryvoile, Semi-crepe, Moss crepe, Artificial chiffon, Artificial

UNIT III: Commercially Important Knitted and Non-woven fabrics: Identification, properties and end use

4 Hours

In this unit, students will learn about various types of knitted and non-woven and other types of fabrics

- Knitted Fabrics- Knitted Terry, Jersey, Rib Knit, Interlock knit, Pique, Velour, Scuba, Fleece, etc.
- Non-wovens- Different types and weights
- Others- Leatherette, Suede, Nets and Laces

UNIT IV: Traditional Indian Fabrics: Identification, properties and end use

5 Hours

In this unit, students will be learn to identify various types of traditional Indian fabrics

- Selected woven, embroidered, painted, printed and dyed traditional Indian textiles.

**PRACTICAL
(Credit 2; Periods: 60)**

7. Identification of various types of fibres, yarns, fabric types (woven, knitted, non-wovens and others), weaves, thread count and fabric weight
8. Collection of swatches for portfolio preparation of woven, knitted, non-woven and traditional Indian fabrics

Essential Readings

- Corbman P. B., (1989), Textiles- Fibre to Fabric, 6th edition, Mc Graw Hill, New York.
- Hollen N., Saddler J., Langford A.L., Kadolph S.J., (1988), Textiles, 6th Edition, Macmillan Publishing Company New York, USA
- Joseph, M.L., (1988) Essentials of Textiles (6th Edition), Holt, Rinehart and Winston Inc., Florida.
- Rastogi, D. (Ed.) and Chopra, S. (Ed.), (2017), Textile Science, Orient Black Swan.
- Sekhri S., (2011) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi.

Suggested Readings

- Pizzuto's J.J. "Fabric Science", Fairchild Publication, New York.
- Tholia A., (2013) Understanding Fabrics- A practical Approach, 2nd edition, Sarv International.
- Das, Shukla, 1992, Fabric Art- Heritage of India, Abhinav Publications, N

Delhi.

- Chelna Desai, 1988, Ikats Textiles of India, Chronicle Books, India.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.