

## GENERIC ELECTIVES (GE HS 014): FABRIC STUDY

### 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 | Department offering the course |
|---------------------|---------|-----------------------------------|----------|---------------------|-----------------------|-----------------------------|--------------------------------|
|                     |         | Lecture                           | Tutorial | Practical/ Practice |                       |                             |                                |
| Fabric Study        | 4       | 3                                 | 0        | 1                   | 12 <sup>th</sup> Pass | NIL                         | Home Science                   |

### Learning Objectives

The Learning Objectives of this course are as follows:

- 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 Learning Outcomes of this course are as follows:

After studying, students will be able to:

- The student will be able to understand the components of a textile fabric.
- The student will be able to identify the various commercially available fabrics.
- The student will be able to appropriately select fabrics based on their properties, cost and recommended end-use.

## SYLLABUS OF GE HS 014

### UNIT I: Fabric components

(09 Hours)

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

Subtopics:

- 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  
(21 Hours)**

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

Subtopics:

- **Cotton and other Cellulosic Fabrics**
  - Lightweight fabrics- Mulmul, Voile, Organdy, etc.
  - Medium weight fabrics- Cambric, Poplin, Cotton, Rubia, Denim, Chambray, Seer-sucker, Eyelash dobby, 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
- **Man-made fibre and blended fabrics**

Art silk, Lizzy-Bizzy, Terivoile, Semi-crepe, Moss crepe, Artificial chiffon, Artificial georgette, Terrycot, Poly-satin, Lycra, Modal, Viscose

**Unit III: Commercially Important Knitted and Non-woven fabrics: Identification, properties and end use (09 Hours)**

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

Subtopics:

- 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 (06 Hours)**

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

Subtopics:

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

**Practical component (if any)**

**PRACTICAL: 30 Hours**

### **Unit I: Identification of various types of fibres, yarns, fabrics and weaves**

- Learn to identify the different components of a fabric, its construction and other essential properties

Subtopics:

- Identification of common textile fibres
- Identification of textile yarns
- Identification of fabric types: Woven, Knitted, Non-Wovens and others
- Identification of fabric weave
- Identification of various types of woven fabrics in terms of Weight
- Thread Count

### **Unit II: Collection of swatches for portfolio preparation of woven, knitted, non-woven and traditional Indian fabrics**

Learn to recognise various types of commercially available fabrics

Subtopics:

- Preparation of portfolio of commonly available fabrics
- Commercially important Woven Fabrics

Commercially important Knitted, Non-Woven and other fabrics o Traditional Indian Fabrics

### **Essential Readings**

- Corbman P. B., (1989), Textiles- Fibre to Fabric, 6th edition, McGraw Hill, New York.
- Hollen N., Saddler J., Langford A.L., Kadolph S.J., (1988), Textiles, 6 th 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.
- Chattopadhyay, K.D., 1995, Handicrafts of India, Wiley Eastern Limited, N Delhi.

### **Suggested Readings: (Practical)**

- Corbman P. B., (1989), Textiles- Fibre to Fabric, 6th edition, McGraw Hill, New York.
- Chelna Desai, 1988, Ikats Textiles of India, Chronicle Books, India.
- Pizzuto's J.J. "Fabric Science", Fairchild Publication, New York.
- Hollen N., Saddler J., Langford A.L., Kadolph S.J., (1988), Textiles, 6<sup>th</sup> Edition, Macmillan Publishing Company New York, USA
- Das, Shukla, 1992, Fabric Art- Heritage of India, Abhinav Publications, N Delhi.
- Chelna Desai, 1988, Ikats Textiles of India, Chronicle Books, India
- Tholia A., (2013) Understanding Fabrics- A practical Approach, 2nd edition, Sarv

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