

GUJARAT TECHNOLOGICAL UNIVERSITY

BRANCH NAME: TEXTILE TECHNOLOGY(29)
DEPARTMENT ELECTIVE – III: SURFACE ORNAMENTATION & FASHION ART
SUBJECT CODE: 2182905
B.E. 8th SEMESTER

Type of course: Engineering

Prerequisite: Basic knowledge of Textiles

Rationale: This course covers various designing & technical aspects of surface ornamentation of fabrics & the machineries used for the same.

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks						Total Marks
L	T	P		Theory Marks			Practical Marks			
				ESE (E)	PA (M)		ESE (V)		PA (I)	
				PA	ALA	ESE	OEP			
3	0	2	5	70	20	10	20	10	20	150

Content:

Sr. No.	Content	Total Hrs	% Weightage
1	Introduction to various methods of Surface Ornamentation.	01	2.38
2	Origin & History of Embroidery, Introduction to sewing machines used for embroidery. Knowledge, classification & practice of hand embroidery stitches-stitches, designs, colors and material used.	06	14.29
3	Different Forms of Embroidery.	01	2.38
4	Classification of Embroidery Machines, Types of embroidery machines and their working- vertical embroidery machines, multi-head embroidery machines-Special attachments in Embroidery machines, Frames used for Embroidery machines.	14	33.33
5	CAD Software used for embroideries- process of designing, types of stitch applications, punching.	02	4.76
6	Backing materials- Types & Purposes. Estimating, costing & marketing of finished embroidery goods.	04	9.52
7	Traditional costumes of different states of India, Accessories and Garment used in India, Costumes of Pakistan, Srilanka, Burma, China & Japan.	04	9.52
8	Study of specific fabrics traditionally being manufactured in different parts of India: Dacca Muslin, Jamdhani, Himrus & Amrus, Carpets, Kashmir shawls, Ikkat, Kalamkari, Brocades, various handloom woven saris in various states of India. Styles of printing and dyeing textiles. Styles of Embroidery in different parts of India.	04	9.52

9	Elements of Fashion art: Sketching and Drawing, Fashion Classification And Types of Fashion, Origin of Fashion language, Philosophy of Design, street Fashion, Study of leading Fashion Designers-French, Italian, American, Indian & English.	03	7.14
10	Concepts of Fashion Design- Definition of Fashion Designing, Initial steps of Fashion Designing, Designing Equipments, Computer Aided Designing, Knowledge of Latest Fashions-Based on Age, Sex, Nationality, Occupation, Socio Economic Status.	03	7.14

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10	10	10	10	10	10

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create 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.

Reference Books:

1. Embroidery Machine Essentials: How to Stabilize, Hoop and Stitch Decorative Designs, Jeanine Twigg
2. Encyclopedia of Machine Embroidery, Val Holmes
3. Costumes of India & Pakistan, D.B Tataporevala sons & co. Ltd.,1982, S.N Dar,
4. Traditional Indian Textiles, Thames and Hudson Ltd., Landon, 1991, Russel Gillow, Nicholas Barnard
5. Virtual Apprentice Fashion Designer, Don Rauf, Checkmark, 2009

Course Outcome:

After learning the course the students should be able to:

1. Describe the origin & history of embroidery and embroidery machines.
2. Describe the different stitches used for hand and machine embroidery.
3. Discuss the different forms of embroidery.
4. Describe the Classification, Technical Features and Working of Embroidery Machines, Various Accessories and Attachments used in the Embroidery Process.
5. Develop designs to be embroidered on fabric using CAD software.
6. Describe the traditional costumes, garments and accessories used by people of Asia.
7. Describe the traditional fabrics and styles of printing and weaving of different states of India.
8. Describe the concept of fashion designing and the factors influencing it.

List of Experiments:

1. To Study Stitches and Work Style.
 - a. Stitches for Hand Type of Work Style. (Samples and Charts)
 - b. Stitches for Machine Embroidery. (Samples and Charts)
 - c. Stitches for different Work Style. (Samples and Charts)
2. To Study Computerised Embroidery Machine.
 - a. Passage of thread through machine.
 - b. Construction of different parts of machine.
 - c. Mechanism for control of fabric and stitching.
 - d. Creeling and re-creeling.
 - e. Drive to different parts.
3. To prepare charts on basis of Selection of material for different types of embroidery work and for different article.
4. To Study features for embroidery software.
5. To study methods for design development for embroidery.
6. To Study methods for embroidery of developed designs on machine.
7. To Study special types of embroidery machines and its applications.
8. To Study the traditional costumes of India.
9. To Study the different traditional handloom fabrics of India.
10. To Study the basics of Sketching & Drawing w.r.t Fashion
11. To Study the designs incorporated by Indian fashion designers.
12. To Study the designs incorporated by international fashion designer.

Design based Problems (DP)/Open Ended Problem: Apart from above experiments a group of students has to undertake one open ended problem/design problem. Few examples of the same are given below:

1. Development of an article using various stitches.
2. Development of an article using various forms of embroidery.

Major Equipment:

Embroidery machine

List of Open Source Software/learning website: <http://nptel.iitm.ac.in>, World Wide Web, Google Search Engine etc.

ACTIVE LEARNING ASSIGNMENTS: Preparation of power-point slides, which include videos, animations, pictures, graphics for better understanding theory and practical work – The faculty will allocate chapters/ parts of chapters to groups of students so that the entire syllabus to be covered. The power-point slides should be put up on the web-site of the College/ Institute, along with the names of the students of the group, the name of the faculty, Department and College on the first slide. The best three works should submit to GTU.