GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Design Syllabus (Textile Design)

Subject Code: 10140405

Subject Name: Woven Structure

WEF Academic Year:	2024-25
Semester:	4
Category of the Course:	PCC

Prerequisite:	
Rationale:	The subject aims to develop understanding of the term 'Textile' in context of weaving and the fundamentals of warp and weft. It includes the study of the table top loom and development of basic weaving skills with the technical knowledge of variations**.**

Course Outcome:

After Completion of the Course, Student will able to:

No	Course Outcomes	RBT Level*
01	• To explain mechanism and design of shuttle looms and other types of looms. • To calculate the production of fabric and yarn involved.	• **U**
02	• To explain various processes in weaving. • To manufacture fabric by using weaving looms depending upon requirements. •	• **U R A**
03	• Understanding of basic woven structures, design, drafting, lifting order, denting order. • Enhancement of skills for development of woven design. • Practical insight into concept of design repeat in woven.	• **U A**

**Revised Bloom's Taxonomy (RBT)*

Teaching and Examination Scheme:

Teaching Scheme (In Hours)			Total Credits L+T+(PR/2)	Assessment Pattern and Marks				Total Marks
				Theory		Tutorial/Practical		
L	T	PR	C	ESE (E)	PA/CA (M)	ESE (V)	PA/CA (I)	
0	0	4	2	0	30	50	20	100

Course Content:

Unit No.	Course Content	No. of Hours	% of Weightage
01	• **Handloom Weaving** • Sketching and familiarization of different parts of handloom.	**20**	**35**
02	• Sketching and practice of various knots and piecing. • Bobbin winding for warp preparation. • Pirn winding for weft.	**20**	**35**
03	• Warping. • Preparation of design, draft, and tie-up/peg plan. • Practice of weaving plan design fabrics.	**20**	**30**
	Total	**60**	**100**

Suggested Specification Table with Marks :

Distribution of Marks (in %)					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
30	**15**	**15**	**15**	**10**	**15**

Where R: Remember; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create (as per Revised Bloom's Taxonomy)

References/Suggested Learning Resources:

(a) Books:

1. Woven cloth construction Author: R. Mark
2. Woven structure and design Author: DoriGeomar
1. [1] Rahul Dubey, "An Introduction to Internet of Things: Connecting Devices, Edge Gateway, and Cloud
2. with Applications", Cengage India Publication
3. [2] Raj Kamal, "Internet of Things: Architecture and Design Principles, Mc Graw Hill Education

4. [3] Hanes et al “IoT Fundamentals”, Cisco Press
5. [4] Vijay Madisetti and Arshdeep Bahga, “Internet of Things (A Hands-on-Approach)”, , Paperback, 2015.
6. [5] A. McEwen, H. Cassimally, “Designing the Internet of Things”, Wiley, 2013.
7. [6] Yashwant Kanetkar, “21 Internet of Things Experiments”, Kindle edition
8. [7] Adeel Javed, “Building Arduino projects for Internet of Things”, Apress publication
9. [8] Donald Noris, “The Internet of Things: Do it yourself Projects with Arduino, Raspberry PI and
10. BeagleBone Black” Mc Graw Hill Publication
11. [9] Adrian McEwen & Hakim Cassimally, “Designing the Internet of things”, Willey publication
12. [1] Rahul Dubey, “An Introduction to Internet of Things: Connecting Devices, Edge Gateway, and Cloud
13. with Applications”, Cengage India Publication
14. [2] Raj Kamal, “Internet of Things: Architecture and Design Principles, Mc Graw Hill Education
15. [3] Hanes et al “IoT Fundamentals”, Cisco Press
16. [4] Vijay Madisetti and Arshdeep Bahga, “Internet of Things (A Hands-on-Approach)”, , Paperback, 2015.
17. [5] A. McEwen, H. Cassimally, “Designing the Internet of Things”, Wiley, 2013.
18. [6] Yashwant Kanetkar, “21 Internet of Things Experiments”, Kindle edition
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