

## **MAHATMA GANDHI UNIVERSITY**

Kottayam, Kerala

## Undergraduate Programmes (HONOURS) 2024 Admission Onwards

SYLLABUS											
SIGNATURE COURSE											
Name of the College	Parumala Mar Gregorios College, Thiruvalla										
Faculty/ Discipline	Textiles										
Programme	-										
Course Coordinator	Sandhyakala R	Sandhyakala R									
Contributors	Revathi Raju, Chinn	Revathi Raju, Chinnu Babu, Jomol Joy									
Course Name	TEXTILE PROCESSIN	TEXTILE PROCESSING AND FINISHING									
Type of Course	VAC										
Specialization title	This Signature Course does not have a specialization.										
Course Code	MG3VACTXLA03										
Course Level	200										
Course Summary	The course provides students a comprehensive overview of the techniques and processes involved in treating textiles with liquid chemicals and dyes. Topics covered include various stages of textile processing, from pre-treatment to finishing, emphasizing both theoretical and practical understanding.										
Semester	3	Credits 3 Total Hou									
Course Details	Learning	Lecture	Tutorial	Practical	Others	Total nours					
Course Details	Approach	3	0	0	0	45					
Pre-requisites, if any	NIL										

## Course Outcomes (CO)

	Number of COs	5				
CO No.	Expected Course Outcome	Learning Domains *	PO No			
1	Compare fabric wet processing techniques.	U	PO4, PO6, PO10			
2	Describe aesthetic and the functional finishes.	U	PO4, PO6, PO10			
3	Summarize textile dyeing and its stages.	U	PO4, PO6, PO10			
4	Explain textile printing and its types.	U	PO4, PO6, PO10			
5	Write a project report on the industrial visit.	А	PO4, PO6, PO7, PO10			

<sup>\*</sup>Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)

## **CO-PO Articulation Matrix**

CO/PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 1	-	-	-	2	-	2	-	-	-	3

CO/PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 2	-	-	-	2	-	2	-	-	-	3
CO 3	-	-	-	2	-	2	-	-	-	3
CO 4	-	-	-	2	-	2	-	-	-	3
CO 5	-	-	-	3	-	3	2	-	-	3

<sup>&#</sup>x27;0' is No Correlation, '1' is Slight Correlation (Low level), '2' is Moderate Correlation (Medium level) and '3' is Substantial Correlation (High level).

### **Course Content**

Content for Classroom transaction (Units)

Module	Units	Course Description	Hrs	CO No.
	Fabric	Finishing Process	•	
	1.1	Fabric preparation process: - Sizing, Singeing, De-Sizing, Scouring and Bleaching.	3	["1"]
1	1.2	Decorative Finishes: Mercerization, Calendaring, Tentering, Flocking, Shearing and Napping.	3	["1"]
	1.3	Enhanced Finishes: Water Repellent and Water Proof Finish, Flame-Retardant Finish, Durable Press Finish and Shrink Resistant Finish.	4	["2"]
	Dyeing	And Printing	•	
2 2	2.1	Textile Dyeing: Classification of Dyes: Natural, Synthetic (Acid, Basic, Direct, Sulphur, Vat, Naphthol, Disperse and Reactive)	7	["3"]
	2.2	Fibre Dyeing: Stock Dyeing, Top Dyeing and Dope Dyeing. Yarn Dyeing: Skein Dyeing and Package Dyeing. Fabric Dyeing: Winch Dyeing, Jet Dyeing, Beam Dyeing, Jig Dyeing, Cross Dyeing, Union Dyeing, Batch Dyeing and Pad Dyeing. Product Dyeing: Dip and Tumble	7	["3"]
	2.3	Textile Printing: Block printing, Screen printing, Roller printing, Rotary printing, Discharge printing and Duplex printing.	6	["4"]
	Team p	project	•	
3	3.1	Team visit to an industry to analyze wet processing and decorative processing, and then produced a comprehensive team report based on the study.	15	["5"]

#### Teaching and Learning Approach

## Classroom Procedure (Mode of transaction)

MODULE 1,2 - Lecture MODULE 3 - Industrial Visit

#### **MODE OF ASSESSMENT**

Mode of Assessment: Theory

## A. Continuous Comprehensive Assessment (CCA) • Theory - 25 Marks

Oral Presentation/ Quiz/ Home Assignment, Industrial Visit Report

## **Assessment Types**

# B. End Semester Evaluation (ESE) • Theory - 50 Marks

Assessment Methods - Written Examination
Duration of Examination - 1.50 Hrs
Pattern of examination for Theory - Non-MCQ
Different parts of written examination - Part - A , B , C , D , E
Answer Type:
PART - A
MCQ - (10 out of 10 ) - 10 × 1 = 10
PART - B
Fill in the blanks - (10 out of 10 ) - 10 × 1 = 10

PART - C
 One word - (10 out of 10 ) - 10 × 1 = 10
 PART - D

• Short answer - (5 out of 6 ) -  $5 \times 2 = 10$ • PART - E

• Short Essays - (2 out of 4) -  $2 \times 5 = 10$ 

#### References

• 1. Corbman, B. P. (1983). Textiles: Fiber to Fabrics. Mcgraw-Hill. 2. Kogent Learning Solutions Inc. (2010). Comdex Fashion Design, Vol 1, Fashion Concepts. 3. Joseph, M. L. (1988). Essentials of Textiles. Holt, Rinehart, And Winston. 4. Jerde, J. (1992). Encyclopedia of Textiles.

### **Suggested Readings**

• 1. Kadolph, S. J., and Marcketti, S. B. (2017). Textiles. Pearson. 2. Hargrave, H. (1997). From Fiber to Fabric. C and T Publishing Inc.

#### **Affidavit**

- We, Parumala Mar Gregorios College, Thiruvalla and Sandhyakala R, retain the copyright of this syllabus and expressly prohibit its distribution in complete form to any institution outside our own.
- We, Parumala Mar Gregorios College, Thiruvalla, agree to appoint a new course coordinator for the proposed TEXTILE PROCESSING AND FINISHING in the event of the unavailability of the currently nominated coordinator. This appointment will ensure the continued coordination of course delivery, assessments, and all related academic responsibilities necessary for the successful implementation of the signature course, for as long as the college offers this programme.
- We, Parumala Mar Gregorios College, Thiruvalla and Sandhyakala R, declare that no part of this signature course submitted here for approval has been taken from the course content developed by, or from any of the course titles prepared by, the BoS/expert committee in the same discipline under our University.