

Syllabus and Course Scheme
Academic year 2023-2024



B.A.
T.D.P.
Exam.-2024

List of Papers for the Degree of B.A. in Textile Dyeing and Printing (T.D.P.)
Semester-wise Titles of the Papers in Textile Dyeing and Printing (T.D.P.)

Year	Sem.	Course Code	Paper Title	Theory/ Practical	Credits
FIRST YEAR	I	TDP101TH	Weaving and Marketing	Th.	6
	II	TDP102TH	Designing & Dyeing	Th.	4
	II	TDP103 PR	Fibres & textiles	Pra	2

TEXTILE DYEING AND PRINTING		
Programme: B.A. Semester -I		Year: I
Semester: I Paper-I		
Subject: Textile dyeing & Printing		
<p>Each paper contains 150 marks. For regular and non collegiates theory paper will be of 100 marks. For regular students internal evaluation of marks 50 are divided into 20 marks for assignment, 20 marks for written test and 10 marks for viva/presentation.</p> <p>For non collegiate students internal evaluation marks 50 are divided into 40 marks for assignment and 10 marks for viva/presentation.</p>		
Course Code : TDP101TH	Course Title: Weaving and Marketing	
<p>Course Objective: The course is designed to train students in the basics of fibres and textiles science. To understand difference among various fibres properties and their manufacturing process. To understand various types of yarn and their properties for suitable application in textiles. To understand basics of weaving technology and weave representation. This course will teach students to understand the term marketing and role of marketing in economy and basics of supply chain management.</p>		
Credits: 6		Core: Compulsory
Max. Marks: 100		Min. Passing Marks: 40
Total No. of Lectures-Tutorials-Practical (in hours per week): 6-0-0		
Unit	Topic	No. of Lectures
Unit I	Introduction to Textile Classification of textile fibers General properties of textile fibers Identification of textile fibers	20
Unit II	Natural Fibers- Manufacture, Chemical composition, general properties & Flowchart-cotton, silk, wool Manmade Fibers- Manufacture, Chemical composition, general properties & Flowchart -Rayon, Nylon, Polyester	20
Unit III	Different methods of yarn construction <ul style="list-style-type: none"> • Types of yarn • Yarn characteristics and their measurement • Twist, Crimp, Strength • Yarn numbering system – Tex, Denier, Count 	20

Unit IV	<p>Introduction to weaving Terms used in weaving Loom & its parts Elementary weaves and their derivatives Plain weave - Rib, Basket Twill weave - Right hand & Left hand Satin weaves - Satin & sateen Weave Representation: Weaving plan, Various Drafts and Peg Plans</p>	15
Unit V	<p>Meaning, nature & scope of marketing</p> <ul style="list-style-type: none"> • Role & importance of marketing in modern economy. • Meaning and importance of marketing mix • Products, Pricing, Physical distribution, Promotion 	15



Suggested Reading:

1. Textiles- Bucker-(1998)Abhishek Publication
2. Essentials of Textiles- M.Joseph, Holf Rinechants,
3. Textile -Year 1998-By A.F. Barker -Chapter 7, Principles of weaving-Pg.154-174
4. Weaving Technology-M.M.Kulkarni, Virinda Publication, Jalgon
5. Principles and practice of Dyeing- V A Shenai, 1993 Sevak Publications.
6. Textile design & colon, Z. Grorikio

Suggested Online Link:

- <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=8x0nJkh/R0vHkX1U70Z/CQ==>
- <https://nptel.ac.in/courses/116104044>
- [https://ndl.iitkgp.ac.in/result?q={%22t%22:%22search%22,%22k%22:%22%E0%A4%9F%E0%A5%87%E0%A4%95%E0%A5%8D%E0%A4%B8%E0%A4%9F%E0%A4%BE%E0%A4%87%E0%A4%B2%22,%22s%22:\[\],%22b%22:{%22filters%22:\[\]}}}](https://ndl.iitkgp.ac.in/result?q={%22t%22:%22search%22,%22k%22:%22%E0%A4%9F%E0%A5%87%E0%A4%95%E0%A5%8D%E0%A4%B8%E0%A4%9F%E0%A4%BE%E0%A4%87%E0%A4%B2%22,%22s%22:[],%22b%22:{%22filters%22:[]}})
- [https://ndl.iitkgp.ac.in/result?q={%22t%22:%22search%22,%22k%22:%22textile%22,%22s%22:\[\],%22b%22:{%22filters%22:\[\]}}}](https://ndl.iitkgp.ac.in/result?q={%22t%22:%22search%22,%22k%22:%22textile%22,%22s%22:[],%22b%22:{%22filters%22:[]}})
- <https://indianculture.gov.in/hi/textiles-and-fabrics-of-india/type-of-textile/dyeing>

Course Learning Outcome:-

Students will be able to understand about science and introductory technology of textiles which may help them to think to make career in this field as textile is the second largest area in terms of employment generation. Students will be able to understand basics of textile manufacturing and fibre identifications which will help them in daily life at the time of garment purchasing. Knowledge about marketing will help them to understand the advertising and promotion industry which will help them to understand the economy and their contribution in economy.

Textile Dyeing and Printing

Programme: B.A. Semester -II	Year: I	Semester: II Paper-II
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Subject: Textile Dyeing and Printing

Each paper contains 100 marks. For regular and non collegiates theory paper will be of 70 marks. For regular students internal evaluation of marks 30 are divided into 10 marks for assignment, 10 marks for written test and 10 marks for viva/presentation.

For non collegiate students internal evaluation marks 30 are divided into 20 marks for assignment and 10 marks for viva/presentation.

Course Code: TDP102TH	Course Title: Designing & Dyeing
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Course Objective: This course is designed to help students to learn about basics of design and pre treatments of textiles. To study various motifs and their arrangement in design. To understand about design repeat. To understand importance of various pretreatments of textiles and their objectives and methods. To understand basics of dyes, its classification and dyeing process. To understand various dyeing machineries used in textile dyeing.

Credits: 4	Core: Compulsory
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Max. Marks: 70	Min. Passing Marks: 28
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Total No. of Lectures-Tutorials-Practical (in hours per week): 6-0-0

Unit	Topic	No. of Lectures
Unit I	1. Elements of design (line, form, colour, texture, tone, space) 2. Principle of design (unity, harmony, balance, dominance, rhythm, proportion) 3. Definition of Motifs & its characteristics with reference - Classification of motifs (i) Traditional (ii) Modern - Types of motifs (i) Geometrical (ii) Stylized (iii) figurative (iv) Abstract (v) Folk (vi) Tribal 4. Concept of Repeat in Design: Types of Repeats: Plain, Vertical, Horizontal, Twill, Mirror, Halfstep, All over.	20
Unit II	Preparatory processes (a) Scouring (b) Bleaching (i) bleaching of cotton, silk, nylon (ii) Optical bleaching agents (c) Desizing (i) Acid desizing (ii) Rot steeping (iii) enzymatic desizing (d) Singeing (i) gas singeing (ii) Plate signing (iii) roller singeing (e) Mercerization - Historical significance & introduction Action of Caustic Soda on Cotton fibre, Nature of Change occurring in cotton fibres	20

Unit III	<p>Nomenclature of Dyes: Colour and Dyes, colouring and Dyeing.</p> <p>The dye molecule (chromophores and auxochromes)</p> <p>Theory of dyeing (Affinity of dye, role of water, electrolytes, heat)</p> <p>Dye auxiliary: Carriers or swelling agents, leveling agents (anionic leveling agents and cationic leveling agents).</p>	20
Unit IV	<p>Classification of dye-stuff and its properties</p> <p>(A) Natural- (a) Vegetable (b) Animal (c) Mineral</p> <p>Synthetic dyes- Acid dyes, direct dyes, reactive dyes, Vat dyes, Sulphur dyes, Azoic dyes</p>	15

Unit V	<p>Dyeing of textile goods in various forms and machinery employed</p> <p>Dyeing of loose fibers</p> <p>Dyeing of yarn</p> <p>Hank dyeing machine</p> <p>ii. Cheese/Bobbin dyeing machine</p> <p>iii. Beam dyeing machine</p> <p>(A) Cloth dyeing</p> <p>Jigger dyeing machine</p> <p>Winch dyeing machine</p> <p>Padding mangle</p> <p>Thermosole process</p> <p>Dopedyeing</p>	15
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Suggested Reading:

1. Bosom worth Dorothy (1995): The encyclopedia of patterns and motifs, Studio editions, London Grociki, Z.J.; Watsons Textile Design and Colour, London,
2. V.A. Shenai (1987), Chemistry of dyes and principles of Dyeing
3. Technology of Textile Processing -Vo.II, Chemistry of Dyes and Principles of Dyeing, V.A. Shenai, 1993, Sevak Publications.

Suggested Online Link:

- <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=8x0nJkh/R0vHkX1U70Z/CQ==>
- <https://nptel.ac.in/courses/116104044>
- [https://ndl.iitkgp.ac.in/result?q={%22t%22:%22search%22,%22k%22:%22%E0%A4%9F%E0%A5%87%E0%A4%95%E0%A5%8D%E0%A4%B8%E0%A4%9F%E0%A4%BE%E0%A4%87%E0%A4%B2%22,%22s%22:\[\],%22b%22:{%22filters%22:\[\]}}](https://ndl.iitkgp.ac.in/result?q={%22t%22:%22search%22,%22k%22:%22%E0%A4%9F%E0%A5%87%E0%A4%95%E0%A5%8D%E0%A4%B8%E0%A4%9F%E0%A4%BE%E0%A4%87%E0%A4%B2%22,%22s%22:[],%22b%22:{%22filters%22:[]}})
- [https://ndl.iitkgp.ac.in/result?q={%22t%22:%22search%22,%22k%22:%22textile%22,%22s%22:\[\],%22b%22:{%22filters%22:\[\]}}](https://ndl.iitkgp.ac.in/result?q={%22t%22:%22search%22,%22k%22:%22textile%22,%22s%22:[],%22b%22:{%22filters%22:[]}})
- <https://indianculture.gov.in/hi/textiles-and-fabrics-of-india/type-of-textile/dyeing>
- <https://textilelearner.net/dyeing-methods/>
- <https://www.britannica.com/topic/textile/Dyeing-and-printing>

Course Learning Outcome :-

Students will be to understand about designing which will be helpful them to make career in the field of fashion and designer. Learning about pretreatment will help students to innovate in that field which will be helpful for water saving in textile chemical processing. Learning about dyes and dyeing process will be helpful to students to start their career in handloom and khadi processing.

**TEXTILE DYEING
AND PRINTING**

Programme: B.A. Semester -II

**Year: I Semester: II
Paper-II**

Subject: Textile dyeing & Printing

The practical contains 50 marks

**Course
Code:
TDP103PR**

**Course Title: Designing & Dyeing
Practical**

Course Objective: The course is designed to train students in the basics of fibres and textiles science. To provide practical knowledge about primary secondary, tertiary. Warm and cool colors and practical aspects of fibre identification and dyeing

Credits: 2

Core: Compulsory

Max. Marks: 50

Min. Passing Marks: 20

Total No. of Lectures-Tutorials-Practical (in hours per week): 0-0-4

1.	Colour wheel, primary, secondary, tertiary colour, cool colours, warm colours	
2.	Monochromatic, complimentary polychromatic, analogous colour	
3.	Tie and Dye (Different patterns on handkerchiefs) with direct dyes.	
4.	Assessing ends and picks per inch of different fabrics	
5.	Assan-weaving (10"x10")	
6.	Identification of fibers—cotton, silk, wool, polyester, nylon.	
7.	Preparation of fabrics for dyeing & printing (desizing, scouring, bleaching)	
8.	Dyeing with Direct, Acid and Sulphur dyes in different shades	
9.	Field and industrial visit	