

# University of Rajasthan Jaipur

## SYLLABUS

(Three/Four Year Under Graduate Programme in  
Science/Arts/Commerce)

I & II Semester  
Examination-2024-25

As per NEP – 2020

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(Academic)  
University of Rajasthan  
JAIPUR

## Structure of Four Year's Bachelor of Arts (Textile-craft)

Programme Code	UG9101	Programme Faculty	Arts	Programme Name	Four Year Bachelor of Arts (Textile-craft)
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Eligibility / Pre-requisite of the Programme-12<sup>th</sup> Class from CBSE or Rajasthan Board or recognised Board

Degree Name -Four Year Bachelor of Arts (Textile-craft)

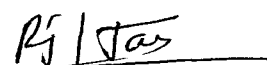
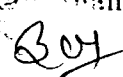
Entry and Exit Policy

### SEMESTER-I

Course Code	Course Title	Course Type	L	T	P	Credit
TEXT-51T-101	Textile Spinning and Weaving (Theory-1)	Discipline Centric Core (Major)	4	0	0	4
TEXT-51T-102	Textile Spinning and Weaving (Practical-1)	Discipline Centric Core (Major)	0	0	2	2
<b>Total Credit</b>						<b>6</b>

### SEMESTER-II

Course Code	Course Title	Course Type	L	T	P	Credit
TEXT-52T-103	Textile Dyeing and Finishing (Theory-1)	Discipline Centric Core (Major)	4	0	0	4
TEXT-52P-104	Textile Dyeing and Finishing (Practical-1)	Discipline Centric Core (Major)	0	0	2	2
<b>Total Credit</b>						<b>6</b>

  
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**PROGRAMME CODE – UG9101**

**Programme Faculty – Arts**

**Programme Name-Four Year Bachelor of Arts (Textile-craft)**

**SEMESTER – I**

**CORE COURSE I**

Code of the Course	Title of the Course	Level of Course	Credits of course
TEXT-51T-101	Textile Spinning and Weaving (Theory-1)	5	4
TEXT-51P-102	Textile Spinning and Weaving (Practical-1)	5	2
<b>Type of Course</b>		<b>Delivery Type of the Course</b>	
<b>Major</b>		Theory-Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours <b>Practical-</b> Laboratory work and field visits (if any)	
<b>Prerequisites</b>	Central Board of Secondary Education or equivalent.		
<b>Objectives of the Course (Theory)</b>	<ul style="list-style-type: none"><li>• To understand the meaning and importance of textile, introduction to textiles and textile terminology, types of textile fibre and their properties, natural fibres</li><li>• To know about man-made and synthetic fibres, their production and properties in brief</li><li>• To understand the basic concept of yarn manufacture (spinning)</li><li>• To understand the basic concept of fabric manufacture (weaving)</li></ul>		
<b>Objectives of the Course (Practical)</b>	<ul style="list-style-type: none"><li>• To help students to understand elementary textile manufacture procedures as textile is the basic need of human being.</li><li>• To make students aware of different types of textile goods and their common properties</li></ul>		

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## Syllabus

### TEXT-51T-101 : Textile Spinning and Weaving (Theory-1)

Max. Marks: 20+80marks

Min. Pass Marks: 8+32marks

#### UNIT-I (Understanding Textiles)

- 1 Introduction to Textiles and Terminology: Fibre- staple and filament, Yarn, Fabric, Spinning, Weaving, Loom etc.
- 2 Fibre identification of natural and animal fibre by feel and burning test.
3. Definition of fibre, basic properties of textile fibres so that it can be used to manufacture usable textile goods
4. Classification of fibres: Natural and Synthetic
5. Production, properties and uses of Vegetable fibres like cotton, linen, jute, hemp, sisal fibre.
6. Production, properties and uses of Animal fibres like silk and wool fibre.
7. Production, properties and uses of Mineral Fibres

#### UNIT-II (Synthetic Fibres)

1. Introduction to synthetic fibres
2. Classification of synthetic fibres

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3. Man-made fibres (Rayon): Production, properties and uses
4. Chemical fibres- polyester, nylon, acrylic, polypropylene:  
Production, properties and uses.

### **UNIT-III (Yarn manufacture-Spinning)**

1. Introduction to spinning process
2. Types of spinning- Traditional and Mechanical
3. Traditional spinning process by Takli and Charkha
4. Introduction to mechanical spinning process of cotton fibre-  
picking, ginning, opening, mixing, blending
5. Types of yarns- single, double and fancy yarns

### **UNIT-IV (Fabric manufacture- Weaving)**

1. Introduction to fabric manufacture process-weaving
2. Different methods of fabric manufacture process- Felting,  
Braid-Lace, Knitting and Weaving.
3. Types of weaving machines (Loom)
4. Handloom, different parts, warp path and motions of  
handloom
5. Elementary weaves: Plain, twill, satin and sateen

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Dr. K. G. Jaiswal  
Professor  
University of Rajasthan  
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**Suggested books, references, journals and links to e-resources:**

1. Fundamental of Textiles : Susheela Damyanti; Orient Blackswan pvt ltd
2. Textile Science : Gohl, Vilensky; CBS Publishers & Distributers Pvt Ltd
3. Principles of Textile Testing : J E Booth; CBS Publishers & Distributers
4. Cotton Spinning : William Scott Taggart; Macmillan and co. Ltd
5. Textile Mechanics : William Scott Taggart; Macmillan and co. Ltd;
6. Vastra-vigyan ke mool Siddhant : Vijay Kumar; Aastha publications, Jaipur
7. Vastra vigyan ki rooprekha Avam siddhant : Vijay Kumar; Baba publications, Jaipur
8. Weaving Mechanism: N N Banerjee ; Textile Book House
9. Clothing and Textiles Research Journal
10. Journal of textile design, research and practice
11. Textile: the journal of cloth and culture
12. <https://www.textilesciences.com>
13. <http://www.textilesphere.com>
14. <https://www.textileebook.com>

**Learning Outcome of the Course –**

- Students will be able to learn about different fibres, their origin, properties and end use.
- Students will also be able to understand the procedure of yarn manufacture, types of yarns and their end uses.
- Also the students will learn the process of fabric manufacture on loom and basic designs being imparted while weaving.
- Students will also analyze and understand the different types of yarns and fabrics being used in the daily life according to uses.

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SEMESTER – I

CORE COURSE I


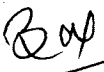
## Syllabus

**TEXT-5IP-102: Textile Spinning and Weaving (Practical-1)**

**Max. Marks: 50**

**Min. Marks: 18**

- (i) Fibre identification test of vegetable fibres: cotton and jute
  - Appearance test
  - Feeling test
  - Burning test
- (ii) Fibre identification test of animal fibres: wool and silk
  - Appearance test
  - Feeling test
  - Burning test
- (iii) Double yarn
- (iv) S- Twist and Z- Twist of yarn
- (v) Elementary weaves on graph paper:
  - Plain weave
  - Regular twill weave
  - Satin weave
  - Sateen weave
- (vi) Paper strip samples of all elementary weaves

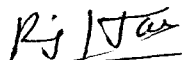

  
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1. Fundamental of Textiles : Susheela Damyanti; Orient Blackswan pvt ltd
2. Textile Science : Gohl, Vilensky; CBS Publishers & Distributers Pvt Ltd
3. Principles of Textile Testing : J E Booth; CBS Publishers & Distributers
4. Cotton Spinning : William Scott Taggart; Macmillan and co. Ltd
5. Textile Mechanics : William Scott Taggart; Macmillan and co. Ltd;
6. Vastra-vigyan ke mool Siddhant : Vijay Kumar; Aastha publications, Jaipur
- 7 Vastra vigyan ki rooprekha Avam siddhant : Vijay Kumar; Baba publications, Jaipur
- 8 Weaving Mechanism: N N Banerjee ; Textile Book House
- 9 Clothing and Textiles Research Journal
- 10 Journal of textile design, research and practice
- 11 Textile: the journal of cloth and culture
- 12 <https://www.fibre2fashion.com>
- 13 <http://www.textilesciences.com>
- 14 <https://www.textileebook.com>

**Learning Outcome of the Course –**

- Students will be able to learn about different fibres, their origin, properties and end use.
- Students will also be able to understand the procedure of yarn manufacture, types of yarns and their end uses.
- Also the students will learn the process of fabric manufacture on loom and basic designs being imparted while weaving.
- Students will also analyze and understand the different types of yarns and fabrics being used in the daily life according to uses.
- Students will be able to learn about different elementary weaves and their structure.

  
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SEMESTER – II

CORE COURSE II

Code of the Course	Title of the Course	Level of Course	Credits of course
TEXT-52T-103	Textile Dyeing and Finishing (Theory-1)	5	4
TEXT-52P-104	Textile Spinning and Weaving (Practical-1)	5	2
<b>Type of Course</b>		<b>Delivery Type of the Course</b>	
Major		Theory-Lecture, Sixty Lecture including diagnostic and formative assessments - during lecture hours Practical- Laboratory work and field visits (if any)	
<b>Prerequisites</b>	Central Board of Secondary Education or equivalent.		
<b>Objectives of the Course (Theory)</b>	<ul style="list-style-type: none"><li>• To understand the concept of light, composition of sun light, concept of colour, perception of colour, colour wheel</li><li>• To know about dyes &amp; pigments, classification of dyes, general theory of dyeing, dyeing process of fabric by tie and dye method</li><li>• To understand the difference between dyeing and printing, different direct methods of printing</li><li>• To understand the basic concept yarn and fabric finishing, introduction to yarn and fabric finishing, importance and role of finishing</li></ul>		
<b>Objectives of the Course (Practical)</b>	<ul style="list-style-type: none"><li>• To help students to understand about light, concept of colour</li><li>• To make students aware of different types of textile dyeing and printing</li></ul>		

Syllabus

**TEXT-52T-103 : Textile Dyeing and Finishing (Theory-1)**

Max. Marks: 20+80marks

Min. Pass Marks: 8+32marks

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### UNIT-I (Light and Colour)

1. Concept of light, composition of sunlight
2. Concept of colour, Colour description -Hue, Value & Chroma
3. Perception of colour- Cones and Rods
4. Theory of colour vision
5. Colour wheel, Achromatic and Monochromatic colour

### UNIT-II (Dyeing)

1. Dye molecule, importance of Chromophores and Auxochrome
2. General theory of Dyeing
3. Dyes and Pigments
4. Classification of Dyes: natural and synthetic
5. Principles of dyeing
6. Dyeing of cotton fabric by Tie and Dye process
7. Different methods of tie and dye

### UNIT-III (Printing)

1. General theory of printing
2. Difference between dyeing and printing
3. Steps in printing
4. Introduction to the different methods of printing:  
-Direct printing

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-Discharge printing

-Resist printing

-Batik

5. Direct methods of printing:

- Block printing

- Screen printing

- Stencil printing

#### UNIT-IV (Finishing)

1. Concept of yarn and fabric finishing

2. Determinants of finishing

3. Objectives of fabric finishes

4. Classification of fabric finishes:

- Basic finish

- Texturing finish

- Functional finish

5. Different types of basic finishes:

- Bleaching

- Mercerising


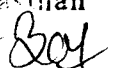
- Sizing

- Singering

- Tantering

- Calendering

- Beatling

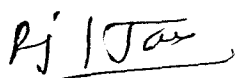
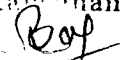
  
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4. Technology of Dyeing: V A Shenai
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8. Technology of Printing: V A Shenai
9. Technology of Textile Processing: V A Shenai
10. Clothing and Textiles Research Journal
11. Journal of textile design, research and practice
12. Textile: the journal of cloth and culture
13. <https://textilefocus.com>
14. <http://kohantextilejournal.com>
15. <https://www.textilebook.com>

**Learning Outcome of the Course –**

- Students will be able to learn about composition of sunlight, concept of colour
- Students will also be able to understand the procedure textile dyeing
- Also the students will learn the process of textile printing
- Students will also understand the different types of yarns and fabrics finishing being used according to the uses of end product.

  
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SEMESTER – II

CORE COURSE II

**Syllabus**

**TEXT-52P-104: Textile Dyeing and Finishing (Practical-1)**

**Max. Marks: 50**

**Min. Marks: 18**

- (i) Colour composition of sunlight
- (ii) Primary colours in light theory and pigment theory
- (iii) Secondary colours
- (iv) Colour wheel, achromatic and monochromatic colour
- (v) Different methods of dyeing by tie and dye process:
  - Folding
  - Leharia
  - Knotting
  - Marbelling
  - Ball
- (vi) Preparation of printing paste
- (vii) Block printing

**Suggested books, references, journals and links to e-resources:**

1. Fundamental of Textiles : Susheela Damyanti; Orient Blackswan pvt Ltd
2. Textile Science : Gohl, Vilensky; CBS Publishers & Distributers Pvt Ltd

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3. Principles of Textile Testing : J E Booth; CBS Publishers & Distributors
4. Technology of Dyeing: V A Shenai
5. Textile Mechanics : William Scott Taggart; Macmillan and co. Ltd;
6. Vastra-vigyan ke mool Siddhant : Vijay Kumar; Aastha publications, Jaipur
- 7 Vastra vigyan ki rooprekha Avam siddhant : Vijay Kumar; Baba publications, Jaipur
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- 9 Clothing and Textiles Research Journal
- 10 Journal of textile design, research and practice
- 11 Textile: the journal of cloth and culture
- 12 <https://www.textilesciences.com>
- 13 <http://www.cottonworks.com>
- 14 <https://www.textileebook.com>

#### Learning Outcome of the Course –

- Students will be able to learn about composition of sunlight, concept of colour
- Students will also be able to understand the procedure textile dyeing
- Also the students will learn the process of textile printing
- Students will also understand the different types of yarns and fabrics finishing being used according to the uses of end product.

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