

Curriculum for Diploma Programme in
TEXTILE DESIGN (PRINTING)
For the State of Uttar Pradesh



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**To be
Approved and Implemented by B.T.E,U.P**

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FOURTH SEMESTER

4.1	Textile Printing	
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	Practicals	
4.5	Textile Printing	
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FIFTH SEMESTER

5.1	Textile Testing -I	
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5.3	Professional Studies	
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SIXTH SEMESTER

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PREFACE

An important issue generally debated amongst the planners and educators world over is how technical education can contribute to sustainable development of the societies struggling hard to come in the same bracket as that of the developed nations. The rapid industrialization and globalization has created an environment for free flow of information and technology through fast and efficient means. This has led to shrinking of the world, bringing people from different culture and environment together and giving rise to the concept of world turning into a global village. In India, a shift has taken place from the forgettable years of closed economy to knowledge based and open economy in the last few decades. In order to cope with the challenges of handling new technologies, materials and methods, we have to develop human resources having appropriate professional knowledge, skills and attitude. Technical education system is one of the significant components of the human resource development and has grown phenomenally during all these years. Now it is time to consolidate and infuse quality aspect through developing human resources, in the delivery system. Polytechnics play an important role in meeting the requirements of trained technical manpower for industries and field organizations. The initiatives being taken by the State Board of Technical Education, UP to revise the existing curricula as per the needs of the industry and making them NSQF compliant .

In order to meet the requirements of future technical manpower, we will have to revamp our existing technical education system and one of the most important requirements is to develop outcome-based curricula of diploma programmes. The curricula for diploma programmes have been revised by adopting time-tested and nationally acclaimed scientific method, laying emphasis on the identification of learning outcomes of diploma programme.

The real success of the diploma programme depends upon its effective implementation. However best the curriculum document is designed, if that is not implemented properly, the output will not be as expected. In addition to acquisition of appropriate physical resources, the availability of motivated, competent and qualified faculty is essential for effective implementation of the curricula.

It is expected of the polytechnics to carry out job market research on a continuous basis to identify the new skill requirements, reduce or remove outdated and redundant courses, develop innovative methods of course offering and thereby infuse the much needed dynamism in the system.

ACKNOWLEDGEMENTS

We gratefully acknowledge the guidance and contribution received from the following persons:

- i) Principal Secretary, Technical Education, Govt. of UP for his exemplary vision and approach.
- ii) Special Secretary, Technical Education Department, Govt. of UP for his support and motivation.
- iii) Sh. Manoj Kumar, Director, Technical Education, UP and Director, I.R.D.T., Kanpur for continuously motivating, guiding and taking keen interest in the review of this curriculum.
- iv) Secretary, Board of Technical Education, UP for his support in this project of review curriculum.
- v) All the participants from industry/field organizations, engineering colleges, polytechnics and other technical institutions for their professional inputs during curriculum workshops.
- vi) Faculty/Subject Experts from different departments of U.P. Government polytechnics for content updating.
- vii) CDC Officer and other Concerning Staff of IRDT Kanpur for their support and assistance in the conduct of Curriculum workshops at different places.

1. SALIENT FEATURES OF DIPLOMA PROGRAMME IN TEXTILE DESIGN (PRINTING)

- 1) Name of the Programme : Diploma Programme in Textile Design (Printing)
- 2) Duration of the Programme : Three years (Six Semesters)
- 3) Entry Qualification : Matriculation or equivalent NSQF Level as Prescribed by State Board of Technical Education, UP
- 4) Intake : 60 (or as prescribed by the Board)
- 5) Pattern of the Programme : Semester Pattern
- 6) NSQF Level : Level - 5
- 7) Ratio between theory and : 45 : 55 (Approx.)

2- EMPLOYMENT OPPORTUNITIES OF DIPLOMA HOLDERS IN TEXTILE DESIGN (PRINTING)

I. Diploma holders in textile design (Printing) may find employment in:

- ▶ Medium & Small scale industries
- ▶ Garment manufacturing industries
- ▶ Garment Sales Emporium
- ▶ Department of Education
- ▶ Film Industry
- ▶ Advertising industry
- ▶ Modeling
- ▶ Fashion Designing
- ▶ Article Writing in Fashion magazines
- ▶ Entrepreneur
- ▶ Textile Designer
- ▶ Boutique/Stencil/Screen Printing
- ▶ Interior Decoration
- ▶ Drawing & Painting
- ▶ House hold decorative Textile Articles
- ▶ Dying/Bleaching
- ▶ Garment Manufacturing
- ▶ Consultancy Services.

ii) Textile designers in textile mills, processing houses and garment export houses for:

- ▶ Developing designs for woven/printed fabric
- ▶ Developing graphic designs
- ▶ Colour matching and sample production
- ▶ Developing a library of designs
- ▶ Preparation of shade cards
- ▶ Reproducing fabric from given sample
- ▶ Woven label designs
- ▶ Developing computer aided textile designs

iii) Self employed/freelancers for:

- ▶ Preparing designs for woven/printed fabrics
- ▶ Preparation of designs for special fabrics, embroidery and wall hangings
- ▶ Preparation of illustrations for dress designers
- ▶ Preparation of designs for floor coverings, handloom, doobby, jacquard, tappet, terry towel, furnishing fabrics, khadi and hand printed textiles etc.
- ▶ Developing graphic designs

3. LEARNING OUTCOMES OF DIPLOMA PROGRAMME IN TEXTILE DESIGN (PRINTING)

Keeping in view job opportunities of diploma holders in textile design, following competency profile is arrived at:

1. Ability to observe and draw various object forms and their surroundings in perspective with 3 dimensional effects to create design based on their shapes, colours and textures
2. Understanding of the concepts and principles of designs
3. Ability to design various forms over textile fabrics
4. Understanding of principles of colour, various techniques to create textures, colour schemes and colour ways
5. Appreciation of traditional Indian Textiles and Art
6. Basic knowledge of textile materials and fabric constructions
7. Competencies for production of woven/knitted designs
8. Competencies on dyeing and printing
9. Competency in making use of computer for developing various textile designs
10. Awareness regarding entrepreneurial support system and basic principles of management, ecology and environment, safety measures
11. Development of designs as per customers requirement
12. Competency to inspect the end product and ensure its quality
13. Knowledge of interpersonal relations and skills in communication

4-DERIVING CURRICULUM AREAS FROM LEARNING OUTCOMES OF THE PROGRAMME

Sr.No.	Competency Profile	Curriculum Area
1.	Ability to observe and draw various objects from their surroundings in perspective with 3 dimensional effect to create designs based on their shapes, colours and textures.	-Basic Design & Sketching -Drawing, Rendering & study of Objects,
2.	Understanding of the concepts and principles of designs	-Principles of Design and Sketching (Fundamental of design, various types of motifs, their placements, value of a space, stylization, developing and enlarging design with combination of different colour and weaves.
3	Ability to design various forms over textile fabrics	-Textile Design
4.	Understanding of principles of colour, various techniques to create textures, colour schemes and colour ways	-Basic Design and Sketching -Textile Colouratio (Introduction to colour theory, application of colour in designs to improve texture)
5.	Appreciation of traditional Indian Textiles and Art	- Indian traditional Design (History of Indian textiles and art Appreciation)
6.	Basic knowledge of textile materials and fabric constructions	-Textile Materials - Yarn Manufacturing Process (Textile Materials, operational knowledge of looms and fabric construction) - Garments & Fashion Studies
7.	Competencies for production of woven /Knitted design	-fabric Structure - Fabric manufacturing Process (Basic techniques of designing)
8.	Competencies on dyeing and printing	-Textile Colouration -Textile Printing (classification of dye stuffs, methods and styles of dyeing and methods of printing) - Advance Textile Printing
9.	Competency in making use of computer for developing various textile designs	-Computer Aided Textile Design (CATD)
10.	Awareness regarding entrepreneurial support system and basic principles of management, ecology and environment,safety measures	-Professional studies(Entrepreneurial system, basic principles of management, environment education and safety precautions)

11.	Development of designs as per customers' requirement	-Major project (Application of knowledge and skills in creating new designs)
12.	Competency to inspect the end product and ensure its quality	-Textile Testing
13.	Knowledge of interpersonal relations and skills in communication	-Communication skills - Universal Human Values -Project Work

5- ABSTRACT OF THE CURRICULUM AREAS

a) General Studies

- 1- Communication Skills-I and II
- 2- Basics of Information Technology
- 3- Energy Conservation
- 4- Environmental Studies
- 5- Universal Human Values

b) Basic Courses of Textile Design

- 6- Textile Materials
- 7- Principles of Design and Sketching
- 8- Yarn Manufacturing Process
- 9- Indian Traditional Textile
- 10- Fabric Manufacturing Process-I, II & III
- 11- Textile Colouration
- 12- Fabric Structure
- 13- Textile Printing
- 14- Textile Design –I &II
- 15- Advance Textile Printing
- 16- Garment & Fashion Studies

c) Applied Courses of Textile Design

- 17- Basic Design & Sketching
- 18- Identification of Textile Materials
- 19- Drawing, Rendering & Study of Objects
- 20- Fabric Analysis
- 21- Computer Aided Textile Design (CATD) I & II
- 22- Textile Testing I & II
- 23- Project Work
- 24- Field Exposure

6- HORIZONTAL AND VERTICAL ORGANISATION OF THE SUBJECTS

Sr. No.	Subjects	Distribution in Periods per week in Various Semesters					
		I	II	III	IV	V	VI
1.	*Communication Skills-I & II	6	-	6	-	-	-
2.	Textile Materials	6	-	-	-	-	-
3.	Principles of Design and Sketching	6	-	-	-	-	-
4.	Basic Design and Sketching (Practical)	12	-	-	-	-	-
5.	Identification of Textile Materials	8	-	-	-	-	-
6.	Basics of Information Technology	6	-	-	-	-	-
7.	Yarn Manufacturing Process	-	6	-	-	-	-
8.	Indian Traditional Design	-	6	-	-	-	-
9.	Fabric Manufacturing Process- I & II	-	10	-	06	-	-
10.	Drawing,Rendering & Study of Objects (Pract)	-	12	-	-	-	-
11.	Indian Traditional Design (Pract.)	-	10	-	-	-	-
12.	Textile Colouration	-	-	06	-	-	-
13.	Fabric Structure- I & II	-	-	06	-	-	06
17.	Textile Colouration (Pract.)	-	-	10	-	-	-
18.	Fabric Analysis (Pract.)	-	-	10	-	-	-
19.	Computer Aided Textile Design –I & II (CATD) (Pract.)	-	-	08	-	-	08
21.	Textile Printing	-	-	-	06	-	-
22.	Textile Design –I &II	-	-	-	06	06	-
24.	*Environmental Studies	-	-	-	05	-	-

26.	Textile Printing (Practical)	-	-	-	10	-	-
27.	Textile Design –I & II (Pract.)	-	-	-	10	10	-
28.	Textile Testing –I&II	-	-	-	-	06	06
29	Professional Studies	-	-	-	-	06	-
30	*Universal Human Values	-	-	-	-	03	-
31	Textile Testing –I & II (Practical)	-	-	-	-	10	08
32	^Advance Textile printing	-	-	-	-	6	-
33	*Energy Conservation	-	-	-	-	-	05
34	Garment & Fashion Studies	-	-	-	-	-	06
35	Project Work	-	-	-	-	-	06
36	Student centered activities (SCA)	4	4	2	5	1	3
		48	48	48	48	48	48

7. **STUDY AND EVALUATION SCHEME FOR DIPLOMA PROGRAMME IN TEXTILE DESIGN (PRINTING)**

FIRST SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
		Periods/Week				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P/dr g		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
1.1	*Communication Skills-I	4		2	4	20	10	30	50	2.5	20	3	70	100
1.2	Textile Materials	4	2	-	4	20	-	20	50	2.5	-	-	50	70
1.3	Principles of Design & Sketching	4	2	-	4	20	-	20	50	2.5	-	-	50	70
	Practicals													
1.4	Basic Design & Sketching	-	-	12	5	-	50	50	-	-	100	4	100	150
1.5	Identification of Textile Materials	-	-	8	4	-	50	50	-	-	100	4	100	150
1.6	*Basics of Information Technology	-	-	6	2	-	40	40	-	-	60	3	60	100
	#Student Centered Activities (SCA)	-	-	4	1	-	30	30	-	-	-	-	-	30
	Total	12	4	32	24	60	180	240	150	-	280	-	430	670

* Common with other diploma programmes.

Student Centered Activities will comprise of co-curricular activities like extension lectures, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities and self study etc

SECOND SEMESTER

Sr. No	SUBJECTS	STUDY SCHEME			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
		Periods/Week				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P/dr g		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
2.1	Yarn Manufacturing Process	4	2	-	4	20	-	20	50	2.5	-	-	50	70
2.2	Indian Traditional Design	4	2	-	5	20	-	20	50	2.5	-	-	50	70
2.3	Fabric Manufacturing Process-I	4	2	4	5	20	-	20	50	2.5	-	-	50	70
	Practicals													
2.4	Drawing ,Rendering & Study of Objects	-	-	12	5	-	50	50	-	-	80	4	80	130
2.5	Indian Traditional Design	-	-	10	5	-	50	50	-	-	80	4	80	130
	#Student Centered Activities (SCA)	-	-	4	1	-	30	30	-	-	-	-	-	30
	Total	12	6	30	25	60	130	190	150	-	160	-	310	500

Student Centered Activities will comprise of co-curricular activities like extension lectures, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities and self study etc

THIRD SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
		Periods/Week				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P/drg		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
3.1	Textile Colouration	4	2	-	4	20	-	20	50	2.5	-	-	50	70
3.2	Fabric Structure -I	4	2	-	4	20	-	20	50	2.5	-	-	50	70
3.3	Communication Skills -II	4	-	2	4	20	10	30	50	2.5	20	3	70	100
	Practicals													
3.4	Textile Colouration	-	-	10	4	-	40	40	-	-	80	3	80	120
3.5	Fabric Analysis	-	-	10	4	-	40	40	-	-	80	3	80	120
3.6	Computer Aided Textile Design –I (CATD)	-	-	8	3	-	50	50	-	-	100	3	100	150
	#Student Centered Activities (SCA)	-	-	2	1	-	30	30	-	-	-	-	-	30
	Total	12	4	32	24	60	170	230	150	-	280	-	430	660

Student Centered Activities will comprise of co-curricular activities like extension lectures, self study, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management and safety etc.

FOURTH SEMESTER

Sr. No	SUBJECTS	STUDY SCHEME			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
		Periods/Week				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P/dr g		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
4.1	Textile Printing	4	2	-	4	20	-	20	50	2.5	-	-	50	70
4.2	Textile Design -I	4	2	-	4	20	-	20	50	2.5	-	-	50	70
4.3	Fabric Manufacturing Process -II	4	2	-	4	20	-	20	50	2.5	-	-	50	70
4.4	*Environmental Studies	3	2	-	3	20	10	30	50	2.5	20	3	70	100
	Practicals													
4.5	Textile Printing	-	-	10	4	-	40	40	-	-	80	4	80	120
4.6	Textile Design -I	-	-	10	4	-	40	40	-	-	80	3	80	120
	#Student Centered Activities (SCA)	-	-	5	1	-	30	30	-	-	-	-	-	30
	Total	15	8	25	24	80	120	200	200	-	180	-	380	580

* Common with other diploma programmes

- **4 weeks Field Exposure (Professional Training) will be organised after 4th Semester exam. The evaluation of Field Exposure (Professional Training) will be done in 6th semester.**

Student Centered Activities will comprise of co-curricular activities like extension lectures, self study, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management and safety etc.

FIFTH SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
		Periods/Week				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P/drg		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
5.1	TextileTesting -I	4	2	-	4	20	-	20	50	2.5	-	-	50	70
5.2	Textile Design -II	4	2	-	4	20	-	20	50	2.5	-	-	50	70
5.3	Professional Studies	4	2	-	4	20	-	20	50	2.5	-	-	50	70
5.4	*Universal Human Values	2	-	1	1	-	20	20	-	-	30	3	30	50
5.5	^Advance Textile Printing	4	2	-	4	20	-	20	50	2.5	-	-	50	70
	Practicals													
5.6	Textile Design -II	-	-	10	4	-	50	50	-	-	100	4	100	150
5.7	Textile Testing-I	-	-	10	4	-	50	50	-	-	100	4	100	150
	#Student Centered Activities (SCA)	-	-	1	1	-	30	30	-	-	-	-	-	30
	Total	18	8	22	26	80	150	230	200	-	230	-	430	660

* Common with other diploma programme

Student Centered Activities will comprise of co-curricular activities like extension lectures, self study, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management and safety etc.

^ By acquiring knowledge of this subject students will get the diploma in textile design with specialization in printing .

SIXTH SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
		Periods/Week				INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P/drg		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
6.1	*Energy Conservation	3	2	-	3	20	10	30	50	2.5	20	3	70	100
6.2	Garment & Fashion Studies	4	2	-	4	20	-	20	50	2.5	-	-	50	70
6.3	Textile Testing -II	4	2	-	4	20	-	20	50	2.5	-	-	50	70
6.4	Fabric Structure -II	4	2	-	4	20	-	20	50	2.5	-	-	50	70
	Practicals													
6.5	Textile Testing -II	-	-	8	3	-	20	20	-	-	40	6	40	60
6.6	Computer Aided Textile Design-II (CATD)	-	-	8	3	-	50	50	-	-	100	4	100	150
6.7	Project Work (i)Viva- Voce	-	-	6	4	-	50	50	-	-	125	Viva	125	175
	(ii) Field Exposure (Done after IV Sem.)	-	-	-	2	-	20	20	-	-	30	Viva	30	50
	#Student Centered Activities (SCA)	-	-	3	1	-	30	30	-	-	-	-	-	30
	Total	15	8	25	28	80	180	260	200	-	315	-	515	775

Student Centered Activities will comprise of co-curricular activities like extension lectures, self study, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management and safety etc.

8. GUIDELINES FOR ASSESSMENT OF STUDENT CENTRED ACTIVITIES (SCA)

It was discussed and decided that the maximum marks for SCA should be 30 as it involves a lot of subjectivity in the evaluation. The marks may be distributed as follows:

- i. 10 Marks for general behavior and discipline
(by HODs in consultation with all the teachers of the department)
- ii. 5 Marks for attendance as per following:
(by HODs in consultation with all the teachers of the department)
- iii. 15 Marks maximum for Sports/NCC/Cultural/Co-curricular/ NSS activities as per following:

(by In-charge Sports/NCC/Cultural/Co-curricular/NSS)

- | | | | |
|----|----|---|--|
| a) | 15 | - | State/National Level participation |
| b) | 10 | - | Participation in two of above activities |
| c) | 5 | - | Inter-Polytechnic level participation |

Note: There should be no marks for attendance in the internal sessional of different subjects.

I-SEMESTER

1.1 *COMMUNICATION SKILLS – I

L T P
4 - 2

RATIONALE

Knowledge of English Language plays an important role in career development. This subject aims at introducing basic concepts of communication besides laying emphasis on developing listening, speaking, reading and writing skills as parts of Communication Skill.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

- Understand the importance of effective communication
- Describe the process of communication
- Communicate effectively in different contexts
- Identify parts of speech
- Write correct sentences using appropriate vocabulary
- Reproduce and match words and sentences in a paragraph
- Write various types of paragraphs, notices for different purposes and composition on picture with appropriate format
- Read unseen texts with comprehension

DETAILED CONTENTS

1	Basics of Communication	(13 periods)
1.1	Definition and process of communication	
1.2	Types of communication - formal and informal, oral and written, verbal and non-verbal	
1.3	Communications barriers and how to overcome them	
1.4	Barriers to Communication, Tools of Communication	

2	Application of Grammar	(18 periods)
	2.1	Parts of Speech (Noun, verb, adjective, adverb) and modals
	2.2	Sentences and its types
	2.3	Tenses
	2.4	Active and Passive Voice
	2.5	Punctuation
	2.6	Direct and Indirect Speech

3 Reading Skill (10 periods)

Unseen passage for comprehension (one word substitution, prefixes, suffixes, antonyms, synonyms etc. based upon the passage to be covered under this topic)

4 Writing Skill (15 periods)

4.1 Picture composition

4.2 Writing paragraph

4.3 Notice writing

LIST OF PRACTICALS

Note: Teaching Learning Process should be focused on the use of the language in writing reports and making presentations.

Topics such as Effective listening, effective note taking, group discussions and regular presentations by the students need to be taught in a project oriented manner where the learning happens as a byproduct.

Listening and Speaking Exercises

1. Self and peer introduction
2. Newspaper reading
3. Just a minute session-Extempore
4. Greeting and starting a conversation

5. Leave taking
6. Thanking
7. Wishing well
8. Talking about likes and dislikes
9. Group Discussion
10. Listening Exercises.

INSTRUCTIONAL STRATEGY

Student should be encouraged to participate in role play and other student centred activities in class room and actively participate in listening exercises

MEANS OF ASSESSMENT

- Assignments and quiz/class tests, mid-semester and end-semester written tests – Actual practical work, exercises and viva-voce
- Presentation and viva-voce

RECOMMENDED BOOKS

1. Communicating Effectively in English, Book-I by RevathiSrinivas; Abhishek Publications, Chandigarh.
2. Communication Techniques and Skills by R. K. Chadha; DhanpatRai Publications, New Delhi.
3. High School English Grammar and Composition by Wren & Martin; S. Chand & Company Ltd., Delhi.
4. Excellent General English-R.B.Varshnay, R.K. Bansal, Mittal Book Depot, Malhotra
5. The Functional aspects of Communication Skills – Dr. P. Prasad, S.K. Katria & Sons, New Delhi
6. Q. Skills for success – Level & Margaret Books, Oxford University Press.
7. E-books/e-tools/relevant software to be used as recommended by

AICTE/UPBTE/NITTTR.

Websites for Reference:

1. [http://www.mindtools.com/ page 8.html](http://www.mindtools.com/page 8.html) – 99k
2. <http://www.letstalk.com.in>
3. <http://www.englishlearning.com>
4. <http://learnenglish.britishcouncil.org/en/>
5. <http://swayam.gov.in>

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	13	24
2	18	32
3	10	16
4	15	28
Total	56	100

1.2 TEXTILE MATERIALS

(Common to Three year Diploma course in Textile Design (Printing))

L	T	P
4	2	-

RATIONAL

The students of textile design are supposed to have introductory knowledge and skill related to various fibers, yarns and fabrics. Thus in this subject students learn different fibers, yarns and fabrics and their manufacturing techniques.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

- To know about the various classifications of textile fibres, their origin, chemical nature, and properties etc.
- To know about the Indian & hybrid cotton varieties and their uses.
- To know about the Flax fibre, Linen fibre, Hemp, Ramie, Jute fibre, and their uses.
- To know about Wool fibre.
- To know about silk fibres.
- To know about Various regenerated Cellulosic fibers .
- To know about the manufacture of Nylon 6, Nylon 66, polyester, Acrylic fibres and their properties & uses.
- To know uses of fibrirs used in technical Textile ,

DETAILED CONTENTS

- 1- Introduction to world's sources of textile fibers (natural and manmade) and their utilization General classification of fibers.
- 2- Essential properties and uses of various varieties of cotton. Introduction to bast fibers; Flex, Jute, Hemp, Ramie, pineapple, Banana, Linen.
- 3- Introduction to natural silk. Rearing of silk worm. Properties and uses of various types of silk, silk reeling, Throwing and weighting.

- 4- Introduction to wool-merino Mohair, Kashmere, Camel and alpaca. sorting and grading of wool. Introduction to wool fibre and elementary idea of different wool.
- 5- Introduction to Manmade fibers such as Nylons, Terelene, Acrylic and Rayons - Viscose, Acetate and Cupramonium.
- 6- Introduction various to blends of the fibres, care of fabrics, spots removing, types of removing agent.
- 7- Introduction to specialized fibers for technical textiles. Properties of specialized fibers such as Glassfibre, Aramide fiber, etc

Note: The student may be exposed to different types of textile manufacturing processes through textile mill visit so that they are able to understand the subject properly

RECOMMENDED BOOKS

1. Textile Fibre by Ghol and Valansk`
2. Yarn to fabric by Peter Schwarz
3. Fibre to fabric by BP Corbman
4. Textile fibers and their processings by KP Hess
5. Elementary Textile by Parul Bhatnagar, Abhishek Publisher, Chandigarh
6. वस्त्र रेशे –उत्पादन विशेषताएँ एवं उपयोग – DR. D.B. Shakyawar & Dr. M.K. Singh , abhishek Publication Chandigarh/ New Delhi.
7. Textile Fibres –I By Dr. V.A. Shenai
8. H V S Murthy, Textile Fibres- Textile Association Publication 1995.
9. S. P. Mishra, A text book of Fibres Science and technology, New Age International (p) Ltd 2000.
10. Gordon & Cook, Hand Book of Fibres, Vol I & II Merow Publication Ltd
11. W.E. Morton & JWS Hearle, Physical properties of textile fibres, Textile Institute, U.K.
12. Progress in textiles: Science and Technology Vol.-2 by Dr. VK Kothari, IIT Delhi.

13. R.W. Moncrieff, Man-Made Fibres- Heywood Books

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time allotted (Periods)	Marks Allotted (%)
1.	12	10
2.	12	15
3.	12	15
4.	12	15
5	12	15
6	12	15
7	12	15
Total	84	100

1.3 PRINCIPLES OF DESIGN & SKETCHING

(Common to Three year Diploma course in Textile Design (Printing))

L	T	P
4	2	-

RATIONAL :

The Fundamental of design skills is the vital part of The Textile Design process, which develops the better understanding and skill to make a foundation for design which is aesthetically expresses the specific meaning.

LEARNING OUTCOMES

- After completing the course, the students will be able to: Identify Drawing tools and Mediums used and their respective functions.
- Developing a visual literacy about our surroundings.
- Identifying the use of various elements and principles in the design.
- Effectively using the various measurement systems on the drawing .
- Using various mediums of presentation for sketching and drawings.

DETAIL CONTENT

- 1- INTRODUCTION TO ART AND DESIGN :
Difference between art and design, Type of Designs .
- 2- INTRODUCTION TO ART MATERIALS :
Pencils, Types of colour (Poster, Water, Pencil, etc.), Paper and other materials, Compass and liner, T-square, Set-square, Drawing board.
- 3- STUDY OF LINES & DOTS :
Types of lines, Psychological and visual association.
- 4- STUDY OF SHAPES :
Types of shapes, Psychological and visual association.
- 5- STUDY OF COLOURS :
Colour wheel, Light theory of colour, Pigment theory of colour, Primary, Secondary, Tertiary, Monochromatic, Complementary, Analogous, Achromatic, Colour psychology and visual effects.

6- STUDY OF TEXTURE :

Types of texture, Categories of texture, Psychological and Visual association.

7- STUDY AND UNDERSTANDING OF PRINCIPLES OF DESIGN :

Rhythm, Harmony, Emphasis, Balance, Repetition, Gradation, Radiation, Negative and positive space, Proportion.

8- AESTHETIC QUALITIES OF DESIGN ELEMENTS :

Formal qualities (Tradition, Geometric), Expressive qualities (Modern, Realistic), Symbolic qualities (Abstract, Folk).

NOTE : No examination question from sketching. The aim here is to familiarize the students with various sketching techniques and materials and thereby develop an acumen for sketching through observation of both the natural and man-made environment. Ultimately these sketching techniques shall help to develop the students design ability.

INSTRUCTIONAL STRATEGY

Student should be encouraged to participate in role play and other student centered activities in class room and actively participate in Pencil diagram and sketching exercises. The Student should be encouraged to draw on daily basis, at least 2 sketches of any object/ natural surroundings/ Human sketch/ buildings/ interior sketches in the sketch book

MEANS OF ASSESSMENT

Assignments and quiz/class tests, mid-semester and end-semester written tests– Actual practical work, exercises and viva-voce– Presentation on the drawing sheets–

RECOMMENDED BOOKS

1. “Rendering with Pencil and Ink” by Gill Robert W., Published by Thomas and Hudson, New Delhi
2. “Learning Curves” by Klara Sjolen and Allan McDonalds By Perfect Paperback Publishers.
3. “The Complete Book of Drawing” by Barrington Barber By Perfect Paperback Publishers.

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time allotted (Periods)	Marks Allotted (%)
1.	9	10
2.	12	15
3.	9	10
4.	9	10
5	12	15
6	9	10
7	12	15
8	12	15
Total	84	100

1.4 BASIC DESIGN & SKETCHING

(Common to Three year Diploma course in Textile Design)

L T P
- - 13

RATIONALE:

Diploma holder of Textile Design are supposed to know the concepts of construction of designs in various styles by using various techniques according to the suitability of various kinds of fabrics on paper with colours. Students are given understanding of all elements and concepts of design through various exercises. They are also taught use of different tools and art-materials

LEARNING OUTCOMES

After completing the course, the students will be able to:

- Identify Drawing tools and Mediums used and their respective functions.
- Developing a visual literacy about our surroundings.
- Developing a sense of appreciation for the built environment
- Identifying the use of various elements and principles in the design
- Effectively using the various measurement systems on the drawing .
- To develop an art of visualizing 3-D objects through their 2-D drawings and projections
- Using various mediums of presentation for sketching and drawings.

DETAIL CONTENT

- 1- Interpretation of single line, lines and using many lines for specific expression ,2 Total number of lines, 3 each with appropriate emotional or psychological expression.
- 2- Conversion of shapes from natural to geometric and abstract any one natural shape to be converted in 6 different forms of geometrical and abstract.
- 3- Organizing these shapes in a given area to create motif.
- 4- Drawing colour wheel that includes primary, secondary and tertiary colours.

- 5- Rendering value scale for value and intensity of each color from the color wheel in the circular chart form, Monochromatic, complementary, split complementary, analogous, achromatic, primary, secondary, tertiary color schemes will be rendered in 2"X2" block.
- 6- Understanding of various types of design: Traditional. - Modern, realistic, Abstract, Folk, Geometric, Total number of variations at list 6 No

Note:

Students should be taken for field visits, museums, exhibitions, market, etc for clarifying the concepts and principles of this course as per requirement.

RECOMMENDED BOOKS

1. The Encyclopaedia of Patterns and Motifs by Dorothy Bosomworth; Studio London
2. Designer's Guide to Colour 3 by Jeanne Alen; Chronicle Books, San Francisco
3. Fabric Painting by Jill Kennedy and Jane Varsall; BT Batsford Ltd., London
4. Designer's Guide to Japanese Patterns by Jeanne Allen; Chronicle Books, San Francisco
5. Handwoven Fabrics of India by Jasleen Dhamija and Jyotindra Jain; Mapin Publishing Pvt. Ltd., Ahmedabad
6. Impression - A Classic Collection of Textile Design by K Prakash; The Design Point, B-7, Shiv Krupa Apartments, Old Nagaradas Road, Andheri (E) Bombay 400 069 (India)
7. Textile Designs- Idea and Applications by Joel Sokoelov; PBC International, Inc., New York
8. History of Textile Design by VA Shenai; Sevak Publications, Bombay 400 031
9. Fabric Art Heritage of India by Sukla Dass; Abhinav Publications
10. Fabric Painting Made Easy by Nancy Ward; Craft Kaleidoscope, Chilton Book Company, Radnor, Pennsylvania
11. Watson's Textile Design and Colour by Z Grosicki; Universal Publishing Corporation, Bombay (India)
12. Textile Designs- 200 years of Patterns for Printed Fabrics Arranged by Motifs, Colours, Period and Design by Susan Maller and Joost Elffers; Thames and Hudson
13. English and American Textiles from 1790 to the Present by Mary Schoeser and Celia Rufey; Thames and Hudson

1.5 IDENTIFICATION OF TEXTILE MATERIALS

(Common to Three year Diploma course in Textile Design (Printing))

L T P
- - 8

RATIONALE:

It is the further addition of knowledge of the subject Textile Materials. In this the students will be practically acquainted with the materials used in textile fabrics.

LEARNING OUTCOMES :

After completing the course, the students will be able to :

1. Identify various textile fibers by their feel and appearance .
2. Identify various textile fibers by their burning behavior.
3. Identify various textile fibers by their longitudinal and cross sectional view under microscope .
4. Identify various textile fibers by their chemical analysis .

DETAIL CONTENTS

Inspection and Identification of various types of textile materials covered in the subject.

All experiments to be done with respect to below listed fibers

- a. Cotton
 - b. Wool
 - c. Silk
 - d. Jute
 - e. Linen
 - f. Polyester
 - g. Acrylic
 - h. Viscose
 - i. Nylon
1. To Study feel & appearance of textile fibers
 2. To study burning behavior of Textile Fibers
 3. To observe various fibers under microscope and study their longitudinal and cross sectional view
 4. Chemical analysis of textile fibers.

RECOMMENDED BOOKS-

1. H V S Murthy, Textile Fibres- Textile Association Publication 1995.
2. R.W. Moncrieff, Man-Made Fibres- Heywood Books
3. Textile Fibre by ATIRA
4. Textile Fibre by VA Shenai

1.6 *BASICS OF INFORMATION TECHNOLOGY

L T P

- - 6

RATIONALE:

Information technology has great influence on all aspects of life. Primary purpose of using computer is to make the life easier. Almost all work places and living environment are being computerized. The subject introduces the fundamentals of computer system for using various hardware and software components. In order to prepare diploma holders to work in these environments, it is essential that they are exposed to various aspects of information technology such as understanding the concept of information technology and its scope; operating a computer; use of various tools using MS Office/Open Office/Libre Office using internet etc., form the broad competency profile of diploma holders. This exposure will enable the students to enter their professions with confidence, live in a harmonious way and contribute to the productivity.

Note:

Explanation of Introductory part should be demonstrated with practical work. Following topics may be explained in the laboratory along with the practical exercises. There will not be any theory examination.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

- Identify Computer Hardware Components, Network Components and Peripherals.
- Explain the role of an Operating System.
- Install System and Application Software.
- Explain the function of the system components including Processor, Motherboard and Input-output devices.
- Use Word Processing Software to prepare document.
- Use Spreadsheet Software to create workbooks and automate calculation.
- Use Presentation Software to create interactive presentation.
- Perform fundamental tasks common to most application software

including print, scan, save, edit, cut, copy, paste, format, spell and grammar check.

- Find and evaluate information on the Web.
- Install Antivirus.
- Safeguard against Online Frauds, threats and crimes.
- Use online office tools(Google suits)

TOPICS TO BE EXPLAINED THROUGH DEMONSTRATION

1. Introduction to Computers and Peripherals.

Components of Computer, Types of Computer, CPU, RAM, ROM, Hard disk, USB, Flash drive, CD, DVD,Blue ray, Keyboard, Mouse, Monitor, LCD, Printer, Plotter, Scanner, Modem, Sound Cards, Speakers, CMOS battery, Sharing of Printers.

2. Operation System and Application Software

System Software, Application Software, Virtualization Software, Utility Software, MS Office/Open Office/ Libre office, Working with window, Desktop components, Menu bars, creating shortcut of program. Installation of Application software , Antivirus and Drivers.

3. Word Processing, Spreadsheet and Presentation

Usage and creation of word document, spreadsheets and presentation, Google Suits (Google drive, google sheet, google doc. Google presentation)

4. Internet

Basics of Networking – LAN, WAN, Wi-Fi technologies, Concept of IP Addrsses, DNS, Search Engines, e-mail, Browsing and cyber laws.

LIST OF PRACTICAL EXERCISES

1. Identify various components, peripherals of computer and list their functions.
2. Installation of various application software and peripheral drivers
3. Installation of operating system (windows/linux/others)
4. Creation and Management (Rename, delete, search of file and folders)
5. Installation of Antivirus and remove viruses

6. Scanning and printing documents
7. Browsing, Downloading, Information using Internet
8. E-Mail ID creation, comparing, sending and receiving e-mail. Attaching a file with e-mail message.
9. Word Processing (MS Office/Open Office)
 - a) File Management
 - ☐ Opening, creating and saving a document, locating files, copying contents in some different file(s), protecting files, giving password protection for a file
 - b) Page set up
 - ☐ Setting margins, tab setting, ruler, indenting
 - c) Editing a document
 - ☐ Entering text, cut, copy, paste using tool- bars
 - d) Formatting a document
 - ☐ Using different fonts, changing font size and colour, changing the appearance through bold/italic/underlined, highlighting a text, changing case, using subscript and superscript, using different underline methods
 - ☐ Aligning of text in a document, justification of document, inserting bullets and numbering
 - ☐ Formatting paragraph, inserting page breaks and column breaks, line spacing
 - ☐ Use of headers, footers: Inserting footnote, end note, use of comments, autotext
 - ☐ Inserting date, time, special symbols, importing graphic images, drawing tools
 - e) Tables and Borders
 - ☐ Creating a table, formatting cells, use of different border styles, shading in tables, merging of cells, partition of cells, inserting and deleting a row in a table
 - ☐ Print preview, zoom, page set up, printing options
 - ☐ Using find, replace options
 - f) Using Tools like
 - ☐ Spell checker, help, use of macros, mail merge, thesaurus word content and statistics, printing envelops and lables
 - ☐ Using shapes and drawing toolbar,
 - ☐ Working with more than one window .

10. Spread Sheet Processing (MS Office/Open Office/Libre Office)

- a) Starting excel, open worksheet, enter, edit, data, formulae to calculate values, format data, save worksheet, switching between different spread sheets
- b) Menu commands:
Create, format charts, organise, manage data, solving problem by analyzing data. Programming with Excel Work Sheet, getting information while working
- c) Work books:

Managing workbooks (create, open, close, save), working in work books, selecting the cells, choosing commands, data entry techniques, formula creation and links, controlling calculations

Editing a worksheet, copying, moving cells, pasting, inserting, deletion cells, rows, columns, find and replace text, numbers of cells, formatting worksheet, conditional formatting

- d) Creating a chart:
Working with chart types, changing data in chart, formatting a chart, use chart to analyze data
Using a list to organize data, sorting and filtering data in list
- e) Retrieve data with query:
Create a pivot table, customizing a pivot table. Statistical analysis of data
- f) Exchange data with other application:
Embedding objects, linking to other applications, import, export document.

11. PowerPoint Presentation (MS Office/Open Office/Libre office)

- a) Introduction to PowerPoint
 - How to start PowerPoint
 - Working environment: concept of toolbars, slide layout & templates.
 - Opening a new/existing presentation
 - Different views for viewing slides in a presentation: normal, slide sorter.
- b) Addition, deletion and saving of slides
- c) Insertion of multimedia elements
 - Adding text boxes
 - Adding/importing pictures
 - Adding movies and sound
 - Adding tables and charts etc.

- Adding organizational chart
- Editing objects
- Working with Clip Art
- d) Formatting slides
 - Using slide master
 - Text formatting
 - Changing slide layout
 - Changing slide colour scheme
 - Changing background
 - Applying design template

12. Google Suits

Using Google drive, Google shut, Google docs, Google slides.

INSTRUCTIONAL STRATEGY

Since this subject is practice oriented, the teacher should demonstrate the capabilities of computers to students while doing practical exercises. The students should be made familiar with computer parts, peripherals, connections and proficient in making use of MS Office/Open Office/Libre office/Google Suit in addition to working on internet. The student should be made capable of working on computers independently.

MEANS OF ASSESSMENT

- Class Tests/Quiz
- Software Installation and Use
- Viva-Voce
- Presentation

RECOMMENDED BOOKS

1. Fundamentals of Computer by V Rajaraman; Prentice Hall of India Pvt. Ltd., New Delhi
2. Information Technology for Management by Henery Lucas, Tata McGraw Hills, New Delhi
3. Computers Fundamentals Architecture and Organisation by B Ram, revised Edition, New Age International Publishers, New Delhi
4. Computers Today by SK Basandara, Galgotia publication Pvt Ltd. Daryaganj, New Delhi.

5. Internet for Every One by Alexis Leon and Mathews Leon; Vikas Publishing House Pvt. Ltd., Jungpura, New Delhi
6. A First Course in Computer by Sanjay Saxena; Vikas Publishing House Pvt. Ltd., Jungpura, New Delhi
7. Computer Fundamentals by PK Sinha; BPB Publication, New Delhi
8. Fundamentals of Information Technology by Leon and Leon; Vikas Publishing House Pvt. Ltd., Jungpura, New Delhi
9. On Your Marks - Net...Set...Go... Surviving in an e-world by Anushka Wirasinha, Prentice Hall of India Pvt. Ltd., New Delhi
10. Fundamentals of Information Technology by Vipin Arora, Eagle Parkashan, Jalandhar

Reference websites

1. www.tutorialspoint.com
2. www.sf.net
3. Gsuite.google.com
4. Spoken-tutorial.org
5. Swayam.gov.in

II - SEMESTER

2.1 YARN MANUFACTURING PROCESS

(Common to Three year Diploma course in Textile Design (Printing))

L T P

4 2 -

RATIONALE

The students of textile design are supposed to have introductory knowledge and skill related to various fibres, yarns and fabrics. Thus in this subject students learn different fibres, yarns and fabrics and their manufacturing techniques.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to learn Types of yarn and their uses along with brief idea of manufacturing, Numbering system and characteristics.

DETAILED CONTENTS

1. Flow chart of the processes involved in the Conversion of fibers into Combed & Carded Yarn and objective of different processes.
2. Brief study and working principles of blow room and carding.
3. Brief description and working of draw frame, combing and speed frame.
4. Brief description and working of ring frame, doubling frame and reeling.
5. Brief introduction of open end Spinning and their properties
6. Types of yarn, Yarn faults and and their uses ,
7. Numbering system of yarns.

INSTRUCTIONAL STRATEGY

The student may be exposed to different types of textile manufacturing processes through textile mill visit so that they are able to understand the subject properly.

RECOMMENDED BOOKS

1. A.R. Khare (All Books)
2. P. Venkat Subramaniam
3. W. Klein, The Textile Institute Publication –Manual of Textile Engineering-Short Staple Spinning Series Vol. I to V.
4. ‘The Characteristics of Raw Cotton’ by P. Lord. The Textile Institute Publication, Manual of Cotton Spinning Vol. II, Part-I.
5. ‘Opening and Cleaning’ by Shirley. The Textile Institute Publication, Manual of Cotton Spinning Vol. II, Part-II.
6. Carl Lawrence, Fundamentals of Spun Yarn Technology.
7. ‘Opening Cleaning and Picking’ by Dr. Zoltan S. Szaloki, Institute of Textile Engineering, Virginia.
8. ‘Cotton Ginning’ Textile Progress, The Textile Institute Publication.
9. Blow-room and Carding- Training Programme conducted by NCUTE, IIT, Delhi.
10. Essential calculations of practical cotton spinning by TK Pattabhiraman.
11. Carding by F.Charanlay. TheTextile Institute publication, Manual of cotton spinning series Vol III
12. Zoltan, S. Szaloky, Drawing, Combing and roving and speed frame, The Institute of Textile Engineering, Verginia.
13. J.H. Black, Draw frame, combing and speed frame, The Textile Institute publication, Manual of cotton spinning Vol-IV Part II.
14. cotton spinning by ATIRA

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time allotted (Periods)	Marks Allotted (%)
1.	15	15
2.	15	20
3.	18	20
4.	18	20
5	18	25
Total	84	100

2.2 INDIAN TRADITIONAL DESIGN

(Common to Three year Diploma course in Textile Design (Printing))

L	T	P
4	2	-

RATIONALE :

Diploma holders of textile design are supposed to know the historical backgrounds of Indian traditional textiles i.e. woven, printed and embroidered and their development of design, fabric uses and technical details. In practical, students learn to prepare replicas, for which they should visit art galleries and museums.

LEARNING OUTCOMES –

After undergoing the subject, the students will be able to:

- 1- Know about traditional Textile of india
- 2- Understand motifs and color themes used in Textile Design
- 3- Understand various construction techniques used .
- 4- Know the history ,origin and centers of Production
- 5- Identify the various kinds of Indian traditional textile .

DETAILED CONTENTS

1. INTRODUCTION TO INDIAN WOVEN TEXTILE :

Historical significance, Construction techniques, Styles, Colours and Motifs, Centers of production.

2. DYEING AND PRINTING IN INDIA :

Historical significance, Construction techniques, Styles, Colours and Motifs, Centers of production.

3. The following topics should be covered in History of textile.

Phulkari Kashmir embroidery Chickankari Bengal Kantha Sanganari Kalamkari Patola Bandhani Ikat Varanasi Brocades Jamdani Chanderi Kanchipuram Baluchar Madhubani, carpet & floor covering .

RECOMMENDED BOOKS

1. Folk Embroidery of Himachal Pradesh by Subhashini Aryan
2. Ikat Textile of India by Chetna Desai
3. Indian Painted Textiles by Kamla Dev Chattopadya
4. Carpets of India by Marq
5. Fabric Art heritage of India by Sukla Das
6. Hand Woven Fabric of India by Jasleen Dhamija
7. Indian Sari by Kamla Dev Chattapodya
8. Tie Dyed Textile of India by veronica Muarphy
9. Hand Woven Fabrics of India by Jasleen Dhamija
10. Traditional Indian Textiles by John Gillow
11. Textile Art of India by Kyoto Shoin
12. Hand Painting Textile For the Home by Kaszz Ball and Valcrie
13. Tie Dyed Textiles of India by Murphyd Crill
14. Masterpieces of Indian Textile by Rustam J Mehta
15. Kashmir Shawls by All India Handicrafts Board
16. Everything you ever wanted to know about Fabric Painting by Jill Kennedy
And Jane Vourell
17. Saries of India – RTZ and Singh
18. Saries of Madhya Pradesh
19. Embroidered Textiles of India, Calico Masam of India
20. Painted Textiles of India, Calico Masam of India
21. Printed Textiles of India, Calico Masam of India
22. Woven Textile of India. Calico Masam of India
23. Costumes and Textiles of India by Parul Bhatnagar; Abhishek
Publisher, Chandigarh

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time allotted (Periods)	Marks Allotted (%)
1.	15	20
2.	15	20
3.	54	60
Total	84	100

2.3 FABRIC MANUFACTURING PROCESS-I

(Common to Three year Diploma course in Textile Design(Printing))

L T P
4 2 4

RATIONALE :

Aim of this paper is to give new entrants in the field of textile first hand knowledge of principles and processes involved in preparation for weaving .

LEARNING OUTCOMES

After undergoing the subject, the students will be able :

- To know the objective of winding.
- To know about different types of Tensioning devices and their uses.
- To understand about yarn clearers and package faults.
- To know about High speed warping machine, salient features –Faults on.
- To understand about, Sizing ingredients, their functions and importance.
- To understand about the Sizing process and various controls.
- To know about Drawing-in Denting, Read count, head count

DETAILED CONTENTS

- 1 . Weaving Preparation :
 - 1.1 Flow chart of the process involved in preparation for weaving.
 - 1.2 i. Winding :

Its object, types on basis of machine speed and winding packages, passage of material through winding machine (slow speed) and any high speed drum winding machine.
 - ii. faults found in winding package .
 - iii. General idea of pirn winding and its need and advantage.
- 2- Warping :- Its main objects , general idea of beam and sectional warping machine .
- 3- Sizing :- Its main objects , methods of sizing on the basis of drying system used for drying wet yarn and on the basis of amount of size put on the yarn .
 - ii- Sizing ingredients for cotton and cotton blends .
 - iii- Passage of warp sheet through slasher sizing machine and knowledge of necessary part of machine .

- 4- Drawing in & Beaming :- main objects , different method used in textile industry, concept of reed and head count .

RECOMMENDED BOOKS

1. Yarn Preparation-Vol-I & II by Sengupta.
2. Fibre to Fabric by PR Lord
3. An introduction to winding & warping by M.K.Talukdar,
4. 4. Modern preparation & weaving machinery, by A. Ormerod, Textile Institute, U.K. .
5. Yarn winding by Banerjee and Alagirusamy (NCUTE publication).
6. Industrial practices in weaving preparatory by M.K. Singh, Woodhead Publication.
7. Weaving: Conversion of Yarn to Fabric by Lord and Mohamed,
8. Winding &Warping by Talukdar MK.
9. Cotton Weaving by ATIRA

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time allotted (Periods)	Marks Allotted (%)
1.	27	30
2.	15	20
3.	27	30
4.	15	20
Total	84	100

2.4 DRAWING, RENDERING & STUDY OF OBJECTS

(Common to Three year Diploma course in Textile Design (Printing))

L T P
- - 12

RATIONALE :

Diploma holders of textile design are required to draw various forms of objects from their surroundings and nature from design point of view e.g flowers, leaves, fruits, plants, monuments etc. The translation of ideas into practice without the use of this graphic language is really beyond imagination. The students are supposed to go for outdoor sketching, also to the museums, gardens and monuments so that they can use various shapes, colours and textures in their designs.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to :

- Understand the Meaning of drawing and rendering.
- Draw, render and study of related Design features.

DETAILED CONTENTS

1- INTRODUCTION TO SKETCHING :

Meaning and difference between sketching and drawing

2- INTRODUCTION TO DRAWING :

How to draw.

3- DRAWING IN AN ACTIVE ENVIRONMENT :

This is to develop the students skills in quick sketching.

4- STUDY OF OBJECTS:

Handling of different media in black and white and also in color i.e pencil, charcoal, pen and ink, brush and ink, water color, pastels and mixed media.

STUDY OF THE FOLLOWING :

Students will make various motifs with coloured pictures on given suggested themes.

- i- Flower heads.
- ii- Vegetables with green leaves.
- iii- Creepers with flowers.
- iv- Sea shells
- v- Sea animals,
- vi- Animals
- vii- Feathers.
- viii- Monuments and Building
- ix- Pottery

- Understanding of basic shapes in perspective, concept of illusion in art expression, three dimensional effect.
- Composition of any three forms from Design Point of View with Water and Poster Colours, on 1/4, imp, sheets.
- Composition of Cross Sectional forms from Design Point of View with Pen and Ink on 1/4, imperial sheet

Note:

1. Students should be taken out for field visits, museums, exhibitions, market, etc for clarifying the concepts and principles of this course as per requirement.
2. There will be only a practical paper in this subject. The knowledge attained by students regarding related theory for practical exercises will be evaluated in the form of viva-voce during practical examinations.

RECOMMENDED BOOKS

1. How to draw and paint by A Walter foster; published by E.D. Galgotia and sons.
2. Flowers and still life by A Walter foster; published by E.D. Galgotia and sons.
3. How to draw and paint textures of animals by A Walter foster; published By E.D. Galgotia and sons.

2.5 INDIAN TRADITIONAL DESIGN

(Common to Three year Diploma course in Textile Design & Textile Design Printing)

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RATIONALE :

The developmental history of textiles proves many times more enlightening to deal and solve even the present day problems. So its importance can not be ignored

DETAILED CONTENTS

Visualization of the design on sheet for various Traditional design covered in Indian traditional textile theory paper

- 1- Phulkari
- 2- Kashmir embroidery
- 3- Chickankari
- 4- Bengal Kantha
- 5- Sanganari
- 6- Kalamkari
- 7- Patola
- 8- Bandhani
- 9- Ikat
- 10- Varanasi Brocades
- 11- Jamdani
- 12- Chanderi
- 13- Kanchipuram
- 14- Baluchar
- 15- Madhubani,
- 16- carpet & floor covering

INSTRUCTIONAL STRATEGY

Note: Students should be taken for field visits to various production centres to show the samples of the above mentioned textiles (embroidered, woven, printed and dyed) They may also be taken for field visits to various places like art galleries/ museums/religious places Practically execute any one of the traditional designs in the contemporary form and prepare a file with replica or samples of the given topics.

List of Participants (Experts)

The following experts have participated/ contributed in workshop for Developing Curriculum Scheme / Competency Profile of Three Year diploma course in Textile Design and Textile Design (Printing) for UP State through a Workshop held at IRDT Kanpur on dated 28-12-2021:

1. Sh. D.K. Verma, Dy. Dir., Directorate of Technical Education , U.P. Kanpur
2. Sh. R.K Shrivastava, Dy. Dir., Directorate of Tech. Education , U.P. Kanpur
3. Sh. Pankaj Yadav, Asstt. Dir., Directorate of Tech. Education , U.P. Kanpur
4. Sh. Harish Kumar Sahu , Lecturer Textile Design , G.P. Farrukhabad
5. Smt. Goldie Jaiswal, Lecturer Textile Design , G.G.P. Prayagraj
6. Dr. U.C. Sonkar, Lecturer Textile Design , G.G.P. Varanasi
7. Ar. Vikas Kulshreshtha, Asstt. Prof., I.R.D.T., Kanpur

The following experts have participated/ contributed in workshop for Developing Curriculum Scheme / Competency Profile / Contents of 1st and 2nd Semester's subjects of Three Year diploma course in Textile Design and Textile Design (Printing) for UP State through a Workshop held at IRDT Kanpur on dated 20-05-2022 :

1. Sh. B.D. Dixit (Rtd.) Prof. U.P.T.T.I. Kanpur
2. Dr. Alka Ali (Rtd.) Prof. U.P.T.T.I. Kanpur
3. Sh. Girish Verma (Rtd.) Resident Manager . NITRA, Kanpur
4. Sh.Arun Kumar Singh Gangwar Associate Prof. Deptt. of Textile Technology, U.P.T.T.I. Kanpur
5. Sh. D.K. Verma, Dy. Dir., Directorate of Technical Education , U.P. Kanpur
6. Sh. R.K Shrivastava, Dy. Dir., Directorate of Tech. Education , U.P. Kanpur
7. Dr. U. C. Sonkar, Lecturer Textile Design , G.G.P. Varanasi
8. Sh. Harish Kumar Sahu , Lecturer Textile Design , G.P. Farrukhabad
9. Sh. P.K. Chaurasiya, Lecturer Textile Design , G.P. Jigarsand Balia
10. Sh. Himanshu Maurya, Lecturer Textile Design , G.G.P. Prayagraj
11. Sh. Rajeev Kumar, Lecturer Textile Design , G.G.P. Gorakhpur
12. Smt. Jyoti Singh , Lecturer Textile Design , G.G.P. Gorakhpur
13. Ar. Vikas Kulshreshtha, Asstt. Prof., I.R.D.T., Kanpur