## GOVERNMENT OF RAJASTHAN

 BOARD OF TECHNICAL EDUCATION RAJASTHAN JODHPUR
## SEMESTER SCHEME-2020-21

(SESSION 2021-2022 \& ONWARDS)


## TEACHING AND EXAMINATION SCHEME AND SYLLABUS

## TEXTILE DESIGN

## (TD)

Curriculum Development Cell Board of Technical Education,Rajasthan W-6 Residency Road, Jodhpur

| Subject Code | Subject | Distribution of Time Hours per week |  |  |  | Distribution of Max. Marks/ Duration |  |  |  |  |  |  | Total Marks | Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | End Semester Exam. |  |  |  | Internal Assessment |  |  |  |  |
|  |  | L | T | P | Tot | TH | Hrs. | PR | Hrs. | CT | TU | PR(S) |  |  |
| TD 1001 | Communication Skills in English-I | 1 | -- | -- | 1 | 60 | 3 | -- | -- | 40 | -- | -- | 100 | 1.0 |
| TD 1002 | Computer Applications-I | 2 | -- | -- | 2 | 60 | 3 |  | -- | 40 | -- | -- | 100 | 2.0 |
| ${ }^{\text {T}}$ TD 1003 | Introduction to Textiles-I | 3 | -- | -- | 3 | 60 | 3 | - | - | 40 | -- | -- | 100 | 3.0 |
| ${ }^{\text {\$ }}$ TD 1004 | Fundamental Theory of Textile Design-I | 1 | - | - | 1 | 60 | 3 | -- | ) | 40 | -- | -- | 100 | 1.0 |
| ${ }^{\text {T }}$ TD 1005 | Introduction of Textile Art and Craft Lab | - | -- | 4 | 4 | -- | -- | 40 | 6 | - | -- | 60 | 100 | 2.0 |
| ${ }^{\text {² }}$ TD 1006 | Sketching \& Drawing-I Lab | - | - | 6 | 6 | - | -- | 40 | 6 | -- | -- | 60 | 100 | 3.0 |
| ${ }^{\text {\$ }}$ TD 1007 | Basics of Designing -I Lab | - | - | 5 | 5 | -- | 7 | 40 | 6 | -- | -- | 60 | 100 | 2.5 |
| *TD 1008 | Communication Skills in English-I Lab | -- | -- | 2 | 2 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 1.0 |
| ${ }^{*}$ TD 1009 | Computer Applications-I Lab | -- | -- | 3 | 3 | -- |  | 40 | 3 | -- | -- | 60 | 100 | 1.5 |
| \$TD 1010 | Introduction to Textiles-I Lab | -- | -- | 1 | 1 | -- |  | 40 | 3 | -- | -- | 60 | 100 | 0.5 |
| ${ }^{\text {T }}$ TD 1011 | Fundamental Theory of Textile Design-I Lab | - | - | 5 | 5 | - | -- | 40 | 6 | -- | -- | 60 | 100 | 2.5 |
| *TD 1111 | Anandam (Joy of Giving) | - | -- | 1 |  | -- | -- | -- | -- | -- | -- | 100 | 100 | 2.0 |
|  | Students Centered Activities | - | -- | 2 | 2 | -- | -- | -- | -- | -- | -- | -- | -- | - |
|  | Total | 7 | -- | 29 | 36 | 240 |  | 280 |  | 160 |  | 520 | 1200 | 22.0 |
|  |  |  |  |  |  |  |  |  |  |  | Gran | Total : | 1200 | 22.0 |


| 1. | L | : Lecture | 5. | PR | $:$ Marks for End Semester Exam for Practical |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 2. | T | : Tutorial | 6. | CT | $:$ Marks for class tests (Internal Assessment) |
| 3. | P | : Practical | 7. | TU | $:$ |
| Marks for tutorials (Internal Assessment) |  |  |  |  |  |

4. TH : Marks for End Semester Exam for Theory 8. $\quad \operatorname{PR}(\mathrm{S}):$ Marks for practical and viva (Internal Assessment)
5. *TD 1001,* TD 1002, * TD 1008, * TD 1009 and *TD 1111 are same in all Branches of Non Engineering.

Two weeks Induction Programme for students to be offered right at the start of First Semester.
Induction Programme includes 1. Creative Arts 2. Uniyersal Human Values 3. Literary 4. Proficiency Modules 5. Lectures by Eminent Persons 6. Visits to City / Nearby Industries 7. Familiarization to Department / Branch / Exhibition room.
Anandam (Joy of Giving): In addition to the practical of one hour every week, students will have to do activities at home and college after college hours.
Students Centered Activities include 1. Expert lectures/ practice sessions on technical topics of common interest 2. Personality development 3. Human values
6. Industrial visits 5 .Art of living 6. Environmental issues 7. Quiz programs 8. Interview techniques 9. Greening and cleaning of campus etc.

Student Centered Activities will be graded as A, B, C \& D on the basis of attendance and interest of the student in learning.

GOVERNMENT OF RAJASTHAN

## BOARD OF TECHNICAL EDUCATION RAJASTHAN, JODHPUR

 TEACHING AND EXAMINATION SCHEME FOR DIPLOMA II SEMESTER (TEXTILE DESIGN)SESSION 2020-2021\& ONWARDS

| Subject <br> Code | Subject | Distribution of TimeHours per week |  |  |  | Distribution of Max. Marks/ Duration |  |  |  |  |  |  | Total Marks | Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | End Semester Exam |  |  |  | Internal Assessment |  |  |  |  |
|  |  | L | T | P | Tot | TH | Hrs | PR | Hrs. | CT | TU | PR(S) |  |  |
| *TD 2001 | Communication Skills in English-II | 1 | - | -- | 1 | 60 | 3 | - | --- | 40 | -- | -- | 100 | 1.0 |
| *TD 2002 | Computer Applications-II | 2 | - | -- | 2 | 60 | 3 | -- | -- | 40 | -- | -- | 100 | 2.0 |
| ${ }^{\text {S }}$ TD 2003 | Introduction to Textiles-II | 3 | - | - | 3 | 60 | 3 |  | -- | 40 | -- | -- | 100 | 3.0 |
| ${ }^{\text {S }}$ TD 2004 | Fundamental Theory of Textile Design II | 1 | - | - | 1 | 60 | 3 | -- |  | 40 | -- | -- | 100 | 1.0 |
| ${ }^{\text {S }}$ TD 2005 | Structural Textile Design-I | 2 | -- | -- | 2 | 60 | 3 | -- | -- | 40 | -- | -- | 100 | 2.0 |
| ${ }^{\text {T }}$ TD 2006 | Sketching \& Drawing-II Lab | - | - | 6 | 6 | -- | -- | 40 | 6 | - | -- | 60 | 100 | 3.0 |
| ${ }^{\text {\$ }}$ TD 2007 | Basics of Designing -II Lab | - | - | 5 | 5 |  | -- | 40 | 6 | -- | -- | 60 | 100 | 2.5 |
| *TD 2008 | Communication Skills in English-II Lab | -- | - | 2 | 2 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 1.0 |
| *TD 2009 | Computer Applications-II Lab | -- | - | 3 | 3 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 1.5 |
| ${ }^{\text {S }}$ TD 2010 | Introduction to Textiles-II Lab |  | - | 1 | 1 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 0.5 |
| ${ }^{\text {\$ }}$ TD 2011 | Fundamental Theory of Textile Design II Lab |  |  | 5 | 5 | -- | -- | 40 | 6 | -- | -- | 60 | 100 | 2.5 |
| ${ }^{\text {s }}$ TD 2012 | Structural Textile Design-I Lab | - |  | 2 | 2 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 1.0 |
| *TD 2111 | Anandam (Joy of Giving) |  | - | 1 | 1 | -- | -- | -- | -- | -- | -- | 100 | 100 | 2.0 |
|  | Students Centered Activities | - | - | 2 | 2 | -- | -- | -- | -- | -- | -- | -- | -- | - |
|  | Total | 9 | -- | 27 | 36 | 300 |  | 280 |  | 200 |  | 520 | 1300 | 23.0 |
| ( |  |  |  |  |  |  |  |  |  |  |  |  | 1300 | 23.0 |


| L | Lecture | 5. | PR | Marks for End Semester Exam for Practical |
| :---: | :---: | :---: | :---: | :---: |
| T | Tutorial | 6. | CT | Marks for class tests (Internal Assessment) |
| P | Practical | 7. | TU | Marks for tutorials (Internal Assessment) |
| TH | Marks |  |  | viva (Internal Assessment) |

8R(S) Marks for practical and viva (Internal Assessment)

1. *TD 2001, ${ }^{\text {s }}$ TD 2002, ${ }^{\text {s }}$ TD 2008, ${ }^{\text {s }}$ TD 2009 and ${ }^{5}$ TD 2111 are same in all Branches of Non Engineering.
2. ${ }^{\$}$ TD 2003, ${ }^{\$}$ TD 1004, ${ }^{\$}$ TD 2005, ${ }^{\$}$ TD 2006, ${ }^{\$}$ TD 2007, ${ }^{\$}$ TD 2010, ${ }^{\$}$ TD 2011 and ${ }^{\$}$ TD 2012 are same FT 2003, FT 2004, FT 2005, FT 006 , FT 2007 , , FT 2010 , FT 2011 and FT 2012 respectively
Anandam (Joy of Giving): In addition/to the practical of one hour every week, students will have to do activities at home and college after college hours.
Students Centered Activities include 1. Expert lectures/ practice sessions on technical topics of common interest 2. Personality development 3. Human values
3. Industrial visits 5. Art of living 6. Environmental issues 7. Quiz programs 8. Interview techniques 9. Greening and cleaning of campus etc.

Students Centered Activities will be graded as A, B, C \& D on the basis of attendance and interest of the student in learning.
NOTE: Students will go for one month (24 Working Days) Summer Internship in the Summer Vacations after Second Semester. The Assessment of the Summer Internship will be done in Third Semester.

BOARD OF TECHNICAL EDUCATION RAJASTHAN, JODHPUR
TEACHING AND EXAMINATION SCHEME
SEMESTER SCHEME-2020-21
FOR DIPLOMA III SEMESTER (TEXTILE DESIGN) (TD) (SESSION 2021-2022\& ONWARDS)


## *TD3001, , ${ }^{*}$ TD3009 and *TD 3333 are same in all Branches of Non Engineering

Students Centered Activities will be graded as A, B, C \& D on the basis of attendance and interest of the student in learning.

BOARD OF TECHNICAL EDUCATION RAJASTHAN, JODHPUR
TEACHING AND EXAMINATION SCHEME
SEMESTER SCHEME-2020-21
FOR DIPLOMA IV SEMESTER (TEXTILE DESIGN) (TD)
(SESSION 2021-2022\& ONWARDS)

| Subject Code | Subject | Distribution of Time Hours per week |  |  |  | Distribution of Max. Marks/ Duration |  |  |  |  |  |  | Total Marks | Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | End Semester Exam. |  |  |  | Internal Assessment |  |  |  |  |
|  |  | L | T | P | Tot | TH | Hrs. | PR | Hrs. | CT | TU/Assi. | PR(S) |  |  |
| *TD 4001 | Environmental Studies-II | 2 | -- | -- | 2 | 60 | 3 | -- | --- | 20 | 20 | -- | 100 | 2.0 |
| TD 4002 | Dyeing Technology- II | 4 | -- | -- | 4 | 60 | 3 | -- |  | 20 | 20 | -- | 100 | 4.0 |
| TD 4003 | Structural Textile Design- III | 4 | -- | -- | 4 | 60 | 3 |  | )-- | 20 | 20 | -- | 100 | 4.0 |
| TD 4004 | Traditional Indian Textiles -II | 1 | -- | -- | 1 | 60 | 3 | - | --- | 20 | 20 | -- | 100 | 1.0 |
| TD 4005 | Design and Fashion Forecasting | 4 | -- | -- | 4 | 60 | 3 | -- | --- | 20 | 20 | -- | 100 | 4.0 |
| TD 4006 | Computer Aided Textile Design -II Lab | -- | -- | 3 | 3 | -- |  | 40 | 3 | -- | -- | 60 | 100 | 1.5 |
| TD 4007 | Dyeing Technology- II Lab | -- | -- | 3 | 3 |  | - | 40 | 3 | -- | -- | 60 | 100 | 1.5 |
| TD 4008 | Printed Fabric Design -II Lab | -- | -- | 3 | 3 | I- | -- | 40 | 6 | -- | -- | 60 | 100 | 1.5 |
| *TD 4009 | Environmental Studies-II Lab | -- | -- | 2 | 2 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 1.0 |
| TD 4010 | Traditional Indian Textiles -II Lab | -- | -- | 4 | 4 | - | -- | 40 | 6 | -- | -- | 60 | 100 | 2.0 |
| TD 4011 | Drawing and Rendering II Lab | -- | -- | 3 | 3 | -- | -- | 40 | 6 | -- | -- | 60 | 100 | 1.5 |
| *TD 4444 | Anandam (Joy of Giving) | -- | -- | 1 | 1 | -- | -- | -- | -- | -- | -- | 100 | 100 | 2.0 |
|  | Students Centered Activities | -- | -- | 2 | 2 | -- | -- | -- | -- | -- | -- | -- | -- |  |
|  | Total | 15 | $\cdots$ | 21 | 36 | 300 | -- | 240 | -- | 100 | 100 | 460 | 1200 | 26 |
| Grand Total : |  |  |  |  |  |  |  |  |  |  |  |  | 1200 | 26 |


| 1. | L | Lecture |  | PR | Marks for End Semester Exam for Practical |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2. | T | Tutorial | 6. | CT | Marks for class tests (Internal Assessment) |
| 3. | P | Practical | 7. | TU/Assi | Marks for tutorials/Assigment (Internal Assessment) |
| 4. | TH | Marks for End Semester Exam for Theory | 8. | PR(S) | Marks for practical and viva (Internal Assessment) |

*TD 4001, *TD 4009 and *TD 4444 are same in all Branches of Non Engineering
Students Centered Activities will be graded as A, B, C \& D on the basis of attendance and interest of the student in learning.
NOTE: Students will go for 6 weeks Summer Internship in the Summer Vacations after Fourth Semester. The Assessment of the Summer Internship will be done in Fifth Semester

## TEACHING AND EXAMINATION SCHEME

SEMESTER SCHEME-2020-21
FOR DIPLOMA V SEMESTER (TEXTILE DESIGN) (TD) SESSION 2022-2023 \& ONWARDS


| 1. | L | $:$ |
| :--- | :--- | :--- |
| 2. | Lecture |  |
| 3. | T | $:$ |
| P | Tutorial |  |
| 4. | TH | $:$ |


| 5. | PR | $:$ | Marks for End Semester Exam for Practical |
| :--- | :--- | :--- | :--- |
| 6. | CT | $:$ | Marks for class tests (Internal Assessment) |
| 7. | TU/Assi | $:$ Marks for tutorials/Assigment (Internal Assessment) |  |
| 8. | PR(S) $:$ | Marks for practical and viva (Internal Assessment) |  |

*TD 5001, and *TD 5555 are same in all Branches of Non Engineering
Students Centered Activities will be graded as A, B, C \& D on the basis of attendance and interest of the student in learning. Note:
Project will be continued and Assesed in VI Semester

## GOVERNMENT OF RAJASTHAN

BOARD OF TECHNICAL EDUCATION RAJASTHAN, JODHPUR TEACHING AND EXAMINATION SCHEME SEMESTER SCHEME-2020-21
FOR DIPLOMA VI SEMESTER (TEXTILE DESIGN)(TD)

| Subject Code | Subject | Distribution of Time |  |  |  | Distribution of Max. Marks/ Duration |  |  |  |  |  |  | Total Marks | Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Hours per week |  |  |  | End Semester Exam. Internal Assessment |  |  |  |  |  |  |  |  |
|  |  | L | T | P | Tot | TH | Hrs. | PR | Hrs. | CT | TU/Assi. | PR(S) |  |  |
| *TD 6001 | Professional Management \& Entrepreneurship-II | 3 | -- | -- | 3 | 60 | 3 | - | -- | 20 | 20 | -- | 100 | 3.0 |
| TD 6002 | Printing Technology- II | 3 | -- | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3.0 |
| TD 6003 | Textile Testing | 3 | -- | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3.0 |
| TD 6004 | Fashion Design and Illustration -II | 1 | -- | -- | 1 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 1.0 |
| TD 6005 | Textile Testing Lab | -- | -- | 1 | 1 |  | - | 40 | 3 | -- | -- | 60 | 100 | 0.5 |
| TD 6006 | Computer Aided Textile Design- IV Lab | -- | -- | 3 | 3 | - | -- | 40 | 3 | -- | -- | 60 | 100 | 1.5 |
| TD 6007 | Printing Technology- II Lab | -- | -- | 3 | 3 | - | -- | 40 | 6 | -- | -- | 60 | 100 | 1.5 |
| TD 6008 | Printed Fabric Design- IV Lab | -- | -- | 5 | - 5 |  | -- | 40 | 6 | -- | -- | 60 | 100 | 2.5 |
| TD 6009 | Free Hand Drawing \&Painting- II Lab | -- | -- | 3 | 3) | -- | -- | 40 | 6 | -- | -- | 60 | 100 | 1.5 |
| TD 6010 | Fashion Design and Illustration -II Lab | -- |  | 2 | 2 | -- | -- | 40 | 6 | -- | -- | 60 | 100 | 1.0 |
| TD 6011 | Project | -- |  | 6 | 6 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 4.0 |
| *TD6666 | Anandam (Joy of Giving) | -- |  | 1 | 1 | -- | -- | -- | -- | -- | -- | 100 | 100 | 2.0 |
|  | Students Centered Activities | -- | - | 2 | 2 | -- | -- | -- | -- | -- | -- | -- | -- | - |
|  | Total | 10 |  | 26 | 36 | 240 | -- | 280 | -- | 80 | 80 | 520 | 1200 | 24.5 |
| Grand Total : |  |  |  |  |  |  |  |  |  |  |  |  | 1200 | 24.5 |

1. L : Lecture
$\begin{array}{llll}\text { 5. } & \text { PR }: & \text { Marks for End Semester Exam for Practical } \\ \text { 6. } & \text { CT }: & \text { Marks for class tests (Internal Assessment) } \\ \text { 7. } & \text { TU/Assi: } & \text { Marks for tutorials/Assigment (Internal Assessment) } \\ \text { 8. } & \text { PR(S) }: & \text { Marks for practical and viva (Internal Assessment) }\end{array}$
*TD 6001, and *TD 6666 are same in all Branches of Non Engineering
Students Centered Activities will be graded as A, B, C \& D on the basis of attendance and interest of the student in learning.

## GOVERNMENT OF RAJASTHAN

BOARD OF TECHNICAL EDUCATION RAJASTHAN JODHPUR SEMESTER SCHEME-2020-21


## I SEMESTER

COMMUNICATION SKILLS IN ENGLISH - I

| Course Code | TD-1001 (Common in All Branches of Non Engineering) |
| :--- | :--- |
| Course Title | Communication Skills in English - I |
| Number of Credits | 1(L-1 T-0, P-0) |
| Prerequisites | None |

## RATIONAL

For business purposes at every level of performance, language remains the mosticommon and important means of communication. A diploma holder who wants to join an industry or organization needs to possess adequate knowledge and skills in language, its usage and presentation. Proficiency both in written and spoken language is required to be developed among the diploma holders

## SUBJECT LEARNING OUTCOMES (SLOS)

The first year syllabus will develop among students the basic knowledge and skills related to syntax and semantics of English Language.

## CONTENTS

1. Grammar : :
1.1 Parts of Speech : Noun; Pronoun; Verb; Adverb; Adjective ; Preposition ; Conjunction ; Interjection
1.2 Common errors in usage of parts of speech
1.3 Articles, Modals in Conversational Usage, Tenses, Modals: Can, Could, Shall, Should, Will, Would, May, Might, Must, Need not, Darenot, ought to, Used to.
2. Punctuation:
2.1 Full stop, Comma, Question mark, Exclamation mark, Inverted Commas, Capital letters.
3. Letter Writing and Report Writing

## REFERENCES BOOKS

1. Intermediate English Grammar Press
2. English Grammar, Usage \& Composition and Co.
3. A Practical Eng. Grammar (and its Exercise Books)
4. High School English Grammar and Composition Co.
5. ABC of Common Grammatical Errors
6. Soft Skills

Raymond Murphy, Cambridge University
Tickoo \& Subramanian,Pub: S. Chand
Thomson and Martinet Pub: ELBS
Wren \& Martin,Pub: S. Chand and
Nigel D Turton,Macmillan India Ltd.
Dr. K. Alex,Pub: S. Chand and Co.

| Course Code | TD-1002 (Common in All Branches of Non Engineering) |
| :--- | :--- |
| Course Title | Computer Applications - I |
| Number of Credits | 2(L-2 T-0, P-0) |
| Prerequisites | None |

## RATIONALE

Use of Computer is increasing for precise and speedy work so it is useful to provide computer knowledge to the students. The course content is designed to give an overyiew and understand working of computer components and Operating System. The course also focuses on basic application Software for office automation.

## SUBJECT LEARNING OUTCOMES (SLOS)

After studying the subject, the students will be able to appreciate the role of Computer Technology, more specifically computer hardware, software and its application in the present social and economic scenario.

CONTENTS

## 1. Introduction

L
6
1.1 Characteristics of Computers
1.2 Application of Computer
1.3 Component of Computer
1.3.1 Block Diagram of Computer

### 1.3.2 ALU and CU

1.3.3 Input Devices: Keyboard, Mouse, Joystick, Scanner, Optical Mark Reader, Bar-code Reader, Magnetic Ink Character Reader, Web Camera
1.3.4Output Device: Monitor, Impact printer - Dot Matrix, Non Impact Printers: Laser and Inkjet Printer
1.3.5 Memory Organzation, Primary Memory, Secondary Memory
1.4 Software
1.4.1 System Software
1.4.2 Application Software
1.5 Relationship betyeen Hardware and Software
2. Operating System
2.1 Concept of Operating System
2.2 Functions of Operating System
2.3 Creating Folder and Shortcut
2.4 Study of Popular Operating Systems: Windows, Androids.
2.5 Control Panel: Adding new hardware and software, Display, Adding new font, User account management
3. Office Automation Software
3.1 Word Processing
3.1.1 Copy, Paste, Find and Replace, Redo Undo, Change Case, Spell Check
3.1.2 Creating and Formatting Tables, Mail Merge
3.1.3 Character and Paragraph Formatting, Page Formatting, Header Footer
3.2 Spreadsheet
3.2.1 Creating, Saving and Editing a Workbook
3.2.2 Formatting cells: changing data alignment, different number formats, changing font, adding borders and colors
3.2.3 Sorting and Filtering, Charts and Graphs
3.3 Presentation Software
3.3.1 Creating, Opening, Saving presentations and Printing: Slides, Handout
3.3.2 Slide Layout, Presentation Views
3.3.3Design Presentation, Running and Controlling a Slide Show
4. Applications of Mobile Phones
4.1 Importance of Mobile Phones
4.2 Different Features of Mobile phones like SMS, Instant Messaging Services and File sharing
4.3 Different applications of mobile phones in Education and Business.

REFERENCE BOOKS

1 Computer Fundamentals
2. Microsoft office for 2016
P.K. Sinha and P. Sinha,BPB publication.

Amy Kinser,Pearson education.

INTRODUCTION TO TEXTILES-I

| Course Code | TD-1003 (Same as FT-1003) |
| :--- | :--- |
| Course Title | Introduction to Textiles-I |
| Number of Credits | 3(L-3 T-0, P-0) |
| Prerequisites | None |

## RATIONALE

This subject may be considered as the "backbone" for the students of Textiles Design "Textile" is related with "Fiber" "Yarn" and "Fabric" which may be taught to students through this subject. Apart from these constructive aspects, we also teach the students the different decorating techniques, thus after going through this subject the students may become capable in understanding all other textile related subjects.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject, the learner will be able to:

1. The student will be able to understand basics of textile fibre and their characteristics.
2. Sources of different textile fibres.
3. Manufacturing of natural, regenerated and synthetic fibres.
4. Different types of yarn

## CONTENTS

1. Fibre
1.1 Definition of fiber, yarn, fabric and blends
1.2 Essential properties of fiber
1.3 Classification of fibers
1.4 Identification of textile fibers
2. Yarn
2.1 Elementary knowledge of processing of the following fibers into Yarn
2.1.1 Natural Fiber -cotton, wool, silk
21.2 Synthetic Fiber - polyester, nylon and rayon
2.2 Physical and chemical properties of the above mentioned fibers.

## 3. Types of yarn

3.1 Classification of yarn
3.2 Introduction to different types of yarn
3.2.1 Standard Yarn
3.2.2 High tenacity yarn
3.2.3 Luster yarn
3.2.4 Carpet yarn
3.2.5 Stretch yarn
3.2.6 Core yarn
3.2.7 Bulked yarn
3.2.8 Spiral yarn
3.2.9 Hosiery yarn
2. Textiles.

Corbean
Norma Hallen and Jane Sadder

Textile Design(TD)
3. Textile Fibers.
4. Fundamental of Textiles and their Care.
5. Textile Science.
6. Textile Science.
7. Fiber and Fabrics of Today.
8. Textile Products Selection Use and Care.
9. Textile Yarn Technology Structure and Appearance. J.C. Goswami ,J.G. Martindele, F.A.Scardina
10. Textiles.
11. The Standard Hand Book of Textiles.
12. Textiles in Perspective.
13. Fiber and Fabric of Today.
14. FromFibers to Fabric. Elizabeth Crale
15. Understanding Textiles. PhyllipG.Tortora
16. Processing of Fibers in Yarn. V.Usenko
17. Textile Fibers. V.A.Shenai
18. Textile Fabrics and their Selection. SabelB.Wintate
19. Essentials of Textile. Marjory L.Jeseph
20. Household Textiles and Laundry Work. DurgaDwelkar
21. Chemical Technology of Fibrous Material. Sadol

## William Morries

A.J. Hall

Era Block and Smith
Hellon Thomson
K.P. Hess

SushilaDhantyagi
J.T. Marsh

Vilenski
Mark
Alexander
,

FUNDAMENTAL THEORY OF TEXTILE DESIGN-1

| Course Code | TD-1004 (Same as FT-1004) |
| :--- | :--- |
| Course Title | Fundamental Theory of Textile Design-I |
| Number of Credits | 1(L-1 T-0, P-0) |
| Prerequisites | None |

## RATIONALE

To enhance the beauty of design, color plays a very significant role in the expression of one design. Different colour schemes provide different feeling and this impart a sense of enrichment to the design. "As the cloth is required to man, colour in required to design", this thinking itself clarifies that there is no use of textile design without adding colors. Thus the aim of this subject is to develop colour sense.

Sketching and drawing are the language of art. If one can sketchand draw the different objects freely, the main aims of this to teach the basics of sketching and drawing with different medium.

Designing is an art created by men with certain limitations. There are some different principles through which one can learn art with more depth and details with the help of different tools, materials and their application.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject, the learner will be able to:

1. Functions and uses of colout to develop pattern recognition, memory and absorbing new information.
2. Locate, compare, understand and recall information of colour terminology faster.
3. The course helps students to development of new design aspects for novelty in fabric surface, textile products and various other textile materials in terms of colours and there developments.

## CONTENTS

2. Colour:
3. Meaning of Colour and Colour Ways
4. ColourTẽrminology:
2.2.1 Hue, Chroma, Value,Tint,Shades.
2.2.2 Elements of Painting - Line, Form, Value, Texture, Colour, Light \& Shade etc.
2.2.3 Principals of Composition - Space-division, Balance, Harmony, Rhythm,Proportion, Contrast
2.2.4 Pigment theory of Colour wheel.
2.2.5 Light theory of Colour wheel.
5. Construction and Placement of Design to form Pattern :
6. Drop $1 / 4$ drop, $1 / 2$ drop, $3 / 4$ drop
7. Drop Reverse
8. Unit Repeat.
9. Sateen Basis.
10. Diamond.
11. Rectangular.
12. Ozee.
13. Geometrical
14. Floral.
15. Traditional
16. Folk
17. Realistic
18. Symbolic
19. Abstract
20. Conventional
21. Modern.

## REFERENCE BOOKS

1. Colour Source Book for Graphic Designers
2. Designer : Guide to Colour
3. Colour Harmony
4. Colour Trends in Two Volume.
5. Watson's Textile Design and Colour.
6. Textile Science.
7. Roopprad Kala keMooladhar
8. Repeat Patterns
9. Abstract and Floral Designs
10. रूप कला के मूलाधार

SadaoNokamnar
SadaoNokamnar Hideaki chijiwa
Products Ltd.
Z. Gresicki

Vilenski
Sharma/Agarwal.
Phillips and Peter
E.A.Segug

शर्मा एवं हटवाल

INTRODUCTION OF TEXTILE ART AND CRAFT LAB

| Course Code | TD-1005 (Same as FT-1005) |
| :--- | :--- |
| Course Title | Introduction of Textile Art and Craft Lab |
| Number of Credits | 2(L-0 T-0, P-4) |
| Prerequisites | None |

## RATIONALE

Indian art and craft are well known to the world, especially the textile related arts are of world fame, hence the students of Textile Design should be well aware about this rich heritage. The ultimate aim of this subject is to impart essential knowledge to the students regarding important aspects of art so that they may utilize these arts for their creative thinking of designing and may enrich their designing with the help of these arts.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject, the learner will be able to:

1. Development of fine motor skills
2. Traditional art of different region and its culture
3. Ornamentation of fabric with batik, tie and dye techniques
4. Enhances dexterity
5. Improvement of hand-eye coordination
6. Learn to appreciate art and culture
7. Enhances creativity
8. Art of Batik :
1.1 Preparation of a file with Batik samples by various methods on the following surfaces:
1.1.1 Paper
1.1.2 Fabric-cotton and silk.
1.2 Preparation of one article
9. Stencil Craft.
2.1 Preparation of a file by paper stencil method on different fabrics with different designs and colours
2.2 Preparation of one article
10. Varli / Mandana Painting. 08
11. Samples of Tie and Dye.
12. Madhubani / Phar Painting on Fabric.

## Note:

1. The Following Essential theory should be taught during the practical.
2. Study of Indian Crafts and Art Related to Textiles with Reference to :
3. Historical Significance
4. Centres of Production
5. Salient Features
6. Study of Various Types and Methods of Batik
7. Detailed Study of the Techniques Related to :
8. Paper Stencils
9. Plastic Stencils
10. Study of Varli / Mandana Folk Arts.
11. Tye and dye
12. Historical Significance
13. Construction Techniques
14. Styles
15. Colour and Motifs
16. Painting
17. Madhubani /phar
18. One day industrial visit is necessary

## REFERENCE BOOKS

1. Batik Art SarlaSudersan
2. Masterpieces of Indian Textiles RustamJ.Metha
3. Textiles of India V.A. Shenai
4. Traditional Indian Textiles Colilloeri John
5. Craft traditions of India JoyaJaithely
6. Tie and Dye Textiles of India Murphy
7. Tie and dye work journal of Indian art Das. C.R.

SKETCHING AND DRAWING -I LAB

| Course Code | TD-1006 (Same as FT-1006) |
| :--- | :--- |
| Course Title | Stitching and Drawing-I Lab |
| Number of Credits | 3(L-0 T-0, P-6) |
| Prerequisites | None |

## RATIONALE

"Sketching" and "Drawing" are the languages of art. The translation of ideas into practice with the use of this Graphic language is really beyond imagination. If one can sketch and draw the different objects freely, one can be capable in translating his/her imagination on paper. The ultimate aim of this subject is to teach the student the basics of sketching and drawing with different mediums so that they may become able to handle each and every medium for their designing.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject ,the learner will be able to:

1. Investigate fundamental design elements and design guidelines.
2. This course aims to improve ability in visualizing design patterns.
3. Learn to use contrast, different types of perspectives, combinations, and shade and texture skills to create a design.
4. Learn to be observant, develop an attention to details and express.
5. Learn the most basic skills which lead to draw 3 D forms.
6. Explore design through a range of drawing and sketching approaches.
7. Drawing and sketching is very valuable skills that can be used in many different industries hence have good job opportunities.

## CONTENTS

1. Nature Studies: Sketching and Drawing of the following from different Angles 40
1.1 Flowers
1.2 Leaves.
1.3 Stems.
1.4 Fruits.
1.5 Vegetables.
1.6 Trees.
1.7 Birds.
1.8 Butterflies
1.9 Landscapes
1.10 Creepers
2. Conversion of already drawn form in to Geometrical forms or creative forms

NOTE : A Sketch file for first two exercises shall be maintained by students having three drawing of each topic with at least 3 different angles using. Pencil, Pen and Ink and Water Colours.

REFERENCE BOOKS
2. How to Draw
3. Its Fun to Sketch with Pencil and Crayons.
4. Plant Life
5. Paradise as a Garden
6. The Illustrated Book a Tree.
7. Trees
8. Reses in Colours
9. The Living World
10. Garden Plants
11. Birds
12. The Thomson and Hudson manual of Gills and Robert Birds
13. How to Draw and Paint Landscape
14. Trees in Perspective
15. Classic textile design
16. Optical and geometrical pattern design

Fester series
Thompson
Piccola
Moynihau
NicholsauClapharu
Garner and Fredvick
Edland
St. Michael
Michael Wright
Hunt, Lynn and Bogue
Rendering with Pen and Ink

## Fester Series

Fester Series
M. DupontAbbermille
spyrosehoremils

## BASIC OF DESIGNING-I LAB

| Course Code | TD-1007 (Same as FT-1007) |
| :--- | :--- |
| Course Title | Basics of Designing-I Lab |
| Number of Credits | $2.5(\mathrm{~L}-0$ T-0, P-5) |
| Prerequisites | None |

## RATIONALE

"Designing" is an art created by men with certain limitations. There are some definite principals through which one can learn art with more depth and detail. The aim of this subject is to teach all the basics related to designing including tools, materials and their application. By learning this subject, students may express themselves and their feelings on different surfaces by different Medias and if once student become able to express oneself, we reach near to our goal.
SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject, the learner will be able to:

1. As everyone is known to the fact that the basics and fundamentals of any subject or field are to be learnt extensively for strong foundation.
2. So as in the field of Textile Designing also it is necessary to learn the conceptual importance of Drawing, Lines, Textures, Compositions and Formations.
3. Therefore, in this subject all these basics are being put on theory cum practical aspects to accomplish the designing part.
4. Hence it is an important learning to get fully acquainted and understanding for the execution of the perfect design and being an innovative designer with cost effectiveness.

## CONTENTS

1. Simple exercises for handling set square, compass, crockel pen etc.
2. Work in all type of LINES using soft pencil \& ink.
3. Drawing of all basic shapes on:

### 3.1 Medias:

### 3.1.1 Pencils - Different type of Pencil with Tonal effects

3.1.2 Colored ink
3.1.3 Crayon / staedtler
3.1.4 Poster colors
3.1.5 Water colors
3.1.6 Oil colors
3.1.7 Charcoal

### 3.2 Material:

3.2.1 Cartridge sheet
3.2.2 Ivory sheet
3.2.3 Handmade sheet
3.2.4 Canvas/ oil sheet
4. Composition of geometrical shapes with poster colors.
5. Different type of textures with all media.
6. Preparation of 10 greeting cards using Different textures with all Medias and materials.

1. Roopprad Art Mooladhar Sharma \&Agarwal
2. Repeat Pattern Phillips \& Peter.
3. Abstract and Floral DesignE.A. Seguy.
4. Encyclopedia of Textiles

COMMUNICATION SKILLS IN ENGLISH-I LAB

| Course Code | TD-1008 (Common in All Branches of Non Engineering) |
| :--- | :--- |
| Course Title | Communication Skills in English - I Lab |
| Number of Credits | 1(L-0 T-0, P-2) |
| Prerequisites | None |

## RATIONAL

For business purposes at every level of performance, language remains the most common and important means of communication. A diploma holder who wants to join an industry or organization needs to possess adequate knowledge and skills in language, its usage and presentation. Proficiency both in written and spoken language is required to be developed among the diploma holders

## SUBJECT LEARNING OUTCOMES (SLOS)

The first year syllabus will develop among students the basic knowledge and skills related to syntax and semantics of English Language.

We envisage two successive stages for attaining skills in communication ability;

1. Listening
2. Speaking

We can club them together as shown below.

1. Listening:

For improving listening skills, the following steps are recommended-
1.1 Listen to Prerecorded Tapes
1.2 Reproduce vocally what has been heard
1.3 Reproduce in Written form
1.4 Summarise the text heard
1.5 Suggest Substitution of Words and Sentences
1.6 Answer Questions related to the taped text
1.7 Summarise in Writing
2. Speaking:

Introducing English consonant-sounds and vowel-sounds
2.1 Remedial exercises where necessary
2.2 Knowing Word stress
2.3 Shifting word stress in poly-syllabic words
[For pronunciation practice read aloud a para or page regularly while others monitor]
3. Body Language:
3.1 Personal Appearance
3.2 Posture
3.3 Gestures and Hand Movements
3.4 Eye Contact
3.5 Facial Expressions

## Note:

1. The Medium of teaching and examination will be English.
2. At least on question will be set from each unit.
3. No theory question will be set from syllabus of practical.

## REFERENCE BOOKS

7. Intermediate English Grammar Press
8. English Grammar, Usage \& Composition Co.
9. A Practical Eng. Grammar (and its Exercise Books)
10. High School English Grammar and Composition Co.
11. ABC of Common Grammatical Errors
12. Soft Skills
$* * * * * * *$

Raymond Murphy,Cambridge University
Tickoo \& Subramanian,Pub: S. Chand and Thomson and Martinet Pub: ELBS Wren \& Martin,Pub: S. Chand and

Nigel DTurton, Macmillan India Ltd. Dr. K. Alex,Pub: S. Chand and Co.

COMPUTER APPLICATIONS-I LAB

| Course Code | TD-1009 (Common in All Branches of Non Engineering) |
| :--- | :--- |
| Course Title | Computer Applications - I Lab |
| Number of Credits | $1.5($ (L-0 T-0, P-3) |
| Prerequisites | None |
| RATIONALE |  |

Use of Computer is increasing for precise and speedy work so it is useful to provide computer knowledge to the students. The course content is designed to give an overyiew and understand working of computer components and Operating System. The course also focuses on basic application Software for office automation.

## SUBJECT LEARNING OUTCOMES (SLOS)

After studying the subject, the students will be able to appreciate the role of Computer Technology, more specifically computer hardware, software and its application in the present social and economic scenario.

## CONTENTS

1. Overview of Parts of Computer, Practice of using My Computer, creating, deleting folders and shortcuts.
2. Practice on Control Panel/ Installing/Uninstalling/Adding Devices 03
3. Exercise on Word Processing 09
3.1 Creating, Saving and Opening documents
3.2 Editing Documents-Cut, Copy, Paste, Undo, Redo, Copying one document to other, Change Case, Go to
3.3 Character and Paragraph Formatting, Numbering and Bullets
3.4 Page Formatting, Header and Footer, Page Break, Watermark
3.5 Spell Check, Find and Replace, Inserting Pictures and Clip-arts
3.6 Working with Tables
3.7 Mail-Merge
4. Exercises on Spreadsheets:
4.1 Creating, Saving and Opening worksheet.
4.2 Edifing Worksheet.
4.3 Formatting Cells- Font, Number Formats Alignment and Borders.
4.4 Charts and Graphs.
4.5 Sorting and Filtering.
5. Exercises on Presentation Package:
5.1 Creating, saving and Opening presentations
5.2 Adding animation in slides
5.3 Running a Slide Show
5.4 Printing Slides and Handouts
6. Hands on Experience on usage of Mobile Phones

## REFERENCE BOOKS

1 Computer Fundamentals
2. Microsoft office for 2016
P.K. Sinha and P. Sinha,BPB publication.

Amy Kinser,Pearson education.

## INTRODUCTION TO TEXTILES-I LAB

| Course Code | TD-1010 (Same as FT-1010) |
| :--- | :--- |
| Course Title | Introduction to Textiles-I Lab |
| Number of Credits | $.5($ L-0 T-0, P-1) |
| Prerequisites | None |

## RATIONALE

This subject may be considered as the "backbone" for the students of Textiles Design "Textile" is related with "Fiber" "Yarn" and "Fabric" which may be taught to students through this subject. Apart from these constructive aspects, we also teach the students the different decorating techniques, thus after going through this subject the students may become capable in understanding all other textile related subjects.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject, the learner will be able to:

1. The student will be able to understand basics of textile fibre and their characteristics.
2. Sources of different textile fibres.
3. Manufacturing of natural, regenerated and synthetic fibres.
4. Different types of yarn

CONTENTS

1. Identification test
1.1 Appearance test
1.2 Feeling test
1.3 Creasing test
1.4 Breaking test
1.5 Tearing test
2. Microscopic study of fiber cross section
3. Market survey

REFERENCE BOOKS

1. Textiles Fiber to
2. Textiles.
3. Textile Fibers.
4. Fundamental of Textiles and their Care.
5. Textile Science.
6. Textile Science.
7. Fiber and Fabrics of Today.
8. Textile Products Selection Use and Care.
9. Textile, Yarn Technology Structure and Appearance. Martindele, F.A.Scardina
10. Textiles.
11. The Standard Hand Book of Textiles.
12. Textiles in Perspective.
13. Fiber and Fabric of Today.
14. FromFibers to Fabric. Elizabeth Crale
15. Understanding Textiles. PhyllipG.Tortora
16. Processing of Fibers in Yarn. V.Usenko
17. Textile Fibers. V.A.Shenai
18. Textile Fabrics and their Selection. SabelB.Wintate
19. Essentials of Textile. Marjory L.Jeseph
20. Household Textiles and Laundry Work. DurgaDwelkar
21. Chemical Technology of Fibrous Material. Sadov

FUNDAMENTAL THEORY OF TEXTILE DESIGN-I LAB

| Course Code | TD-1011 (Same as FT-1011) |
| :--- | :--- |
| Course Title | Fundamental Theory of Textile Design-I Lab |
| Number of Credits | $2.5($ L-0 T-0, P-5) |
| Prerequisites | None |

## RATIONALE

To enhance the beauty of design, color plays a very significant role in the expression of one design. Different colour schemes provide different feeling and this impart a sense of enrichment to the design. "As the cloth is required to man, colour in required to design", this thinking itself clarifies that there is no use of textile design without adding colors. Thus the aim of this subject is to develop colour sense.

Sketching and drawing are the language of art. If one can sketchand draw the different objects freely, the main aims of this to teach the basics of sketching and drawing with different medium.

Designing is an art created by men with certain limitations. There are some different principles through which one can learn art with more depth and details with the help of different tools, materials and their application.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject, the learner will be able to:

1. The student will be able to understand basics of textile fibre and their characteristics.
2. Sources of different textile fibres.
3. Manufacturing of natural, regenerated and synthetic fibres.
4. Different types of yarn

## CONTENTS

1. Colour Wheel
1.1 Light theory of colour wheel
1.2 Pigment theory of colour wheel
(Preparation of sheet mentioning details of particular they taking inspiration from nature and objects)
2. Preparation of at Least 6 Different Colour ways -
2.1 Sample studied, based on Variation in Hue, value, and Chroma.
3. Collection of different samples in reference of colours and colour ways with different styles of design.
4. Construction of geometrical design with basic colours in reference to context of $\lambda$ different drops.
5. Drawing and Painting equipment materials tools their uses, and techniques-Lead Pencils, Charcoal, Crayons or Pastels, Erasers, Brushes, Boards, Board pins \& Colors etc.

## REFERENCE BOOKS

1. Colour Source Book for Graphic Designers
2. Designer : Guide to Colour
3. Colour Harmony
4. Colour Trends in Two Volume.
5. Watson's Textile Design and Colour.
6. Textile Science.

SadaoNokamnar
SadaoNokamnar
Hideaki chijiwa
Products Ltd.
Z. Gresicki

Vilenski

Textile Design(TD)
7. Roopprad Kala ke Mooladhar
8. Repeat Patterns
9. Abstract and Floral Designs
10. रूपकलाकेमूलाधार

Sharma/Agarwal.
Phillips and Peter
E.A.Segug

शर्माएवंहटवाल

## GOVERNMENT OF RAJASTHAN

 BOARD OF TECHNICAL EDUCATION RAJASTHAN JODHPUR SEMESTER SCHEME-2020-21

## II SEMESTER

COMMUNICATION SKILLS IN ENGLISH - II

| Course Code | TD-2001 (Common in All Branches of Non Engineering) |
| :--- | :--- |
| Course Title | Communication Skills in English - II |
| Number of Credits | $1($ L-1 T-0, P-0) |
| Prerequisites | None |

## RATIONAL

For business purposes at every level of performance, language remains the most common and important means of communication. A diploma holder who wants to join an industry or organization needs to possess adequate knowledge and skills in language, its usage and presentation. Proficiency both in written and spoken language is required to be developed among the diploma holders

## SUBJECT LEARNING OUTCOMES (SLOS)

The first year syllabus will develop among students the basic knowledge and skills related to syntax and semantics of English Language.

## CONTENTS

1. Vocabulary Building :

L
1.1. Prefixes and Suffixes
1.2. Synonyms and Antonyms
1.3. One Word Substitution
1.4. Words Often Confused
1.5. Words Often Misspelt
2. Sentence Building:
2.1. Types of Sentences and their Transformation -
2.2. Interchange of Affirmative and Negative sentences
2.3. Interchange of Interrogative and Assertive sentences
2.4. Interchange of Exclamatory and Assertive sentences
3. Composition:

2
3.1. Unseen Passage, Précis Writing
4. Essay Writing:
4.1. Essays on general topics and topics related to environmental problems.
1.

## REFERENCE BOOKS

1. Intermediate English Grammar
2. English Grammar, Usage \& Composition Chand and Co.
3. A Practical Eng. Grammar (and its Exercise Books)
4. High School English Grammar and Composition Co.
5. ABC of Common Grammatical Errors
6. Soft Skills

Raymond Murphy,Cambridge University Press
Tickoo\& Subramanian, Pub: S.
Thomson and Martinet, Pub: ELBS
Wren \& Martin, Pub: S. Chand and

Nigel D Turton, Macmillan India Ltd.
Dr. K. Alex, Pub: S. Chand and Co.

## COMPUTER APPLICATIONS-II

| Course Code | TD-2002 (Common in All Branches of Non Engineering) |
| :--- | :--- |
| Course Title | Computer Applications - II |
| Number of Credits | 2(L-2, T-0, P-0) |
| Prerequisites | None |

## RATIONALE

Use of Computer is increasing for precise and speedy work so it is useful to provide computer knowledge to the students. The course provides knowledge of internet, email, web browsing and

E-commerce. It also gives overview of Cyber Security and Information technology Act.

## SUBJECT LEARNING OUTCOMES (SLOS)

The student will be able to understand the concept of Networks, internet and importance of Cyber security in the present time.

1. Computer Network
1.1 Need of networks
1.2 Data Transmission Media: Twisted pair, Coaxial, Optical Fiber
1.3 Types of Network-LAN, WAN, MAN
1.4 Topologies of LAN - Ring, Bus, Star, Mesh and Tree
1.5 Digital and Analog Transmission
1.6 Modem - Working and characteristics
2. Internet
2.1 Introduction to Internet, Intranet, World Wide Web.
2.2 Internet Service Provider.
2.3 URL
2.4 Web Brower and its functions, Web Page, Search Engines
2.5 Protocol: Basic of http, https, FTP, SMTP, POP
2.6 Basic of E-mail
2.7 E-mail Service Provider
2.8 Composing E-mail
2.9 Mailing List
2.10Creatíng Label
2.11Signature
2.12Spam
3. E-Commerce and Cyber Security
3.1 Introduction to E-Commerce
3.2 Type of E-Commerce
3.3 Advantages and Disadvantages of E-Commerce
3.4 Payment Gateways
3.5 Introduction to different types of Cyber Attacks: Phishing, Ransomware, SQL Injection, Web Jacking, Trojan Attacks, Denial of Service, Cyber Stalking, Password Cracking, Hacking, E mail Spoofing
3.6 Cyber laws in India: Introduction to IT (Information Technology) Act'2000
3.7 Definition of Virus, Malware, Scanning \& Removing Virus using Antivirus Program
4. Multimedia
4.1 What is Multimedia?
4.2 Text and Graphics.
4.3 Animation, Audio, Images and Video.
4.4 Multimedia Application in Education and Entertainments.

REFERENCE BOOKS
1 Computer Fundamentals
P.K. Sinha and P. Sinha, BPB publication.
2. Data Communications and Networking Forouzan TMH
3. Internet for Everyone

Alexis Leon \& Mathews Leon, Vikas Publishing House, New Delhi.

INTRODUCTION TO TEXTILES -II

| Course Code | TD-2003 (Same as FT-2003) |
| :--- | :--- |
| Course Title | Introduction to Textiles-II |
| Number of Credits | 3(L-3 T-0, P-0) |
| Prerequisites | None |

## RATIONALE

This subject may be considered as the "backbone" for the students of Textiles Design "Textile" is related with "Fiber" "Yarn" and "Fabric" which may be taught to students through this subject. Apart from these constructive aspects, we also teach the students the different decorating techniques, thus after going through this subject the students may become capable in understanding all other textile related subjects.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject, the learner will be able to:

1. Yarn preparation for weaving.
2. Basics of Dyeing, printing and finishes
3. The importance of textile.
4. General studies of fabric as selection and suitability, care of fabric etc.

## CONTENTS

1. Brief study of yarn preparation for weaving (winding, warping, sizing, doubling) 06
2. Dyeing and printing
2.1. Definition of Dye, Dyeing and printing
2.2. Difference between Dyeing and printing
2.3. Classification of methods and styles of printing
2.4. Factors affecting dye take up
3. Finishes
3.1. Classification of finishes
3.2. Aims of giving finishes
3.3. Brief study of the following finishes:-
3.3.1. mercerising
3.3.2. calendering
3.3.3. tentering
3.3.4 shrinkage control
3.3.5 anti crease finish
3.3.6. moth and mildew proof finish
4. General studies
4.1. selection and suitability of fabric
4.2. care of fabric
4.3. general importance of textiles

## REFERENCE BOOKS

1. Textiles Fiber to Fabric.
2. Textiles.
3. Textile Fibers.

Corbean
Norma Hallen and Jane Sadder
K.P. Hess
4. Fundamental of Textiles and their Care.
5. Textile Science.
6. Textile Science.
7. Fiber and Fabrics of Today.
8. Textile Products Selection Use and Care.
9. Textile Yarn Technology Structure and Appearance. Martindele,F.A.Scardina
10. Textiles.
11. The Standard Hand Book of Textiles.
12. Textiles in Perspective.
13. Fiber and Fabric of Today.
14. FromFibers to Fabric.
15. Understanding Textiles.
16. Processing of Fibers in Yarn.
17. Textile Fibers.
18. Textile Fabrics and their Selection.
19. Essentials of Textile.
20. Household Textiles and Laundry Work.
21. Chemical Technology of Fibrous Material.

SushilaDhantyagi
J.T. Marsh

Vilenski
Mark
Alexander
J.C. Goswami ,J.G.

William Morries
A.J. Hall

Era Block and Smith
Hellon Thomson
Elizabeth Crale
PhyllipG.Tortora
V.Usenko
V.A.Shenai

SabelB.Wintate
Marjory L.Jeseph
DurgaDwelkar
Sadov
*****

FUNDAMENTAL THEORY OF TEXTILE DESIGN-II

| Course Code | TD-2004 (Same as FT-2004) |
| :--- | :--- |
| Course Title | Fundamental Theory of Textile Design-II |
| Number of Credits | 1(L-1 T-0, P-0) |
| Prerequisites | None |

## RATIONALE

To enhance the beauty of design, colour plays a very significant role in the expression of one design. Different color schemes provide different feeling and this impart a sense of enrichment to the design. "As the cloth is required to man, colour in required to design", this thinking itself clarifies that there is no use of textile design without adding colours. Thus the aim of this subject is to develop colour sense.

Sketching and drawing are the language of art. If one can sketch and draw the different objects freely, the main aims of this to teach the basics of sketching and drawing with different medium.

Designing is an art created by men with certain limitations. There are some different principles through which one can learn art with more depth and details with the help of different tools, materials and their application.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject, the learner will be able to:

1. Functions and uses of colour to develop pattern recognition, memory and absorbing new information.
2. Locate, compare, understand and recall information of colour terminology faster.
3. The course helps students to development of new design aspects for novelty in fabric surface, textile products and various other textile materials in terms of colours and there developments.

## CONTENTS

1. Detailed Study of Colour Theories in Context of the following :
1.1.1. Primary Colours.
1.1.2. Secondary Colours.
1.1.3. Tertiary Colours.
1.1.4. Colour-Schemes (Colour in Combination). Monochromatic, Polychromatic Analogueand Acromatic.
1.1.5. Complementary.
1.1.6. Split Colours.
1.1.7. Double Split Colours.
1.1.8. Triad Colours.
1.1.9. Neutral, Warm and Cool Colours.
1.1.10. Contrast: Simultaneous, Successive.
2. Place and importance of subject, idea, feeling, imagination, expression, suggestion, symbolism, contrast, medium, technique and colours in composition.
3. Meaning of Technical Theory.
4. Differences in the meaning of medium, Method, Process, Technique, Style, Expression and Communication.
5. Layout and reproduction Techniques.

## REFERENCE BOOKS

1. Colour Source Book for Graphic Designers
2. Designer : Guide to Colour
3. Colour Harmony
4. Colour Trends in Two Volume.
5. Watson's Textile Design and Colour.
6. Textile Science.
7. Roopprad Kala keMooladhar
8. Repeat Patterns
9. Abstract and Floral Designs
10. रूपकलाकेमूलाधार

SadaoNokamnar
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Products Ltd.
Z. Gresicki

Vilenski
Sharma/Agarwal.
Phillips and Peter
E.A.Segug

शर्माएवंहटवाल

STRUCTURAL TEXTILE DESIGN-I

| Course Code | TD-2005 (Same as FT-2005) |
| :--- | :--- |
| Course Title | Structural Textile Design-I |
| Number of Credits | 2(L-2 T-0, P-0) |
| Prerequisites | None |

## RATIONALE

Structural fabric design is one of the most important part of Textile design in which the students have to learn and create designs for different woven fabrics, By learning the basics of weaving, students become aware of techniques of fabric construction Actually the techniques of dyeing and printing are applied mainly on constructed fabrics, hence the students shpuld be able to construct at least basic fabrics so that they become aware of the designing of these fabries.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject, the learner will be able to:

1. Develop new weave structures.
2. Create new structures using color and weave effect.
3. Draw simple and compound structures.
4. Comparative study of weaves
5. Understand the fundaments of weave and their use


## CONTENTS

1. Introduction of fabric Structure
2. Definition of
2.1. Warp and weft,
2.2. Ends and picks,
2.3. Design,
2.4. Repeat of a design
2.5. Draft,
2.6. Lifting or peg plan
2.7. Denting order
3. Types of drafts and their uses in the manufacture of various fabrics
4. Study of Parts of loom.
5. Woyen design fundamental
5.1. Classification of woven structure
5.2. Method of weave representation
5.3. Basic element of woven design
5.4. Relation between design, draft and lifting plan
6. Classification of Basic Weaves.
7. Plain weave
7.1. Characteristics of plain weave
7.2. Modification (Derivatives) of plain weave
7.3. End use of plain weave
8. Ornamentation of plain weave

## REFERENCE BOOKS

1. Principles of Weaving Mark Rebinson
2. Watson Textile Design and Colour Z.Gresicki
3. Textiles Fibre to FabrisBeanaredP.Corbmav
4. Under Standing Textiles. G.Tortora.
5. Handloom Weaving Technology Allen A. Fannin.
*********

SKETCHING AND DRAWING-II LAB

| Course Code | TD-2006 (Same as FT2006) |
| :--- | :--- |
| Course Title | Stitching and Drawing-II Lab |
| Number of Credits | 3(L-0 T-0, P-6) |
| Prerequisites | None |

## RATIONALE

Sketching and drawing are like stair case to a magnificent design. it's about finding and refining the best ideas, an inseparable parts of design process. a student who can sketch and draw efficiently can explore countless ideas .it's one of the most simplest and efficient means of communicating visual ideas . It's more of conveying emotions thought artwork.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject ,the learner will be able to:

1. Investigate fundamental design elements and design guidelines.
2. This course aims to improve ability in visualizing design patterns.
3. Learn to use contrast, different types of perspectives, combinations, and shade and texture skills to create a design.
4. Learn to be observant, develop an attention to details and express.
5. Learn the most basic skills which lead to draw 3 D forms.
6. Explore design through a range of drawing and sketching approaches.
7. Drawing and sketching is very valuable skills that can be used in many different industries hence have good job opportunities.

CONTENTS

1. Object Study :
1.1. Understanding of basic Geometrical Shapes in Perspective.
1.2. Expression of Opaque and Transparent Objects.
1.3. Expression of Rough and Clazed Surface Objects.
1.4. Study of Drapery.
2. Conversion of already drawn form in to Geometrical Or abstract forms. 18
3. Compositions:
3.1. Composition of realistic forms with Water Colour on $1 / 4 \mathrm{imp}$. Sheet.
3.2. Composition of converted forms with Poster Colours on $1 / 4 \mathrm{imp}$ sheet.

NOTE:A drawing sheet for first two exercises shall be maintained by students having three drawing of each topic with at least 3 different angles using. Pencil, Pen and Ink and Water Colours.

## REFERENCE BOOKS

1. Rooppad art
2. Abstract and floral design
3. Abstract art pattern and design
4. Focus on Nature
5. The Living world
mooladharSharma/agarwal
EA seguy
M.P. Vernencil

Faher
st. Michael
6. The Thomson and Hudson manual of Rendering with Pen and Ink 17 Birds Gills and Robert
7. How to draw : Human Fiqure
fester series
8. Water Colour and Painting

Ron Rauson.
9. Still life
fester series

BASIC OF DESIGNING-II LAB

| Course Code | TD-2007 (Same as FT-2007) |
| :--- | :--- |
| Course Title | Basics of Designing-II Lab |
| Number of Credits | $2.5(\mathrm{~L}-0$ T-0, P-5) |
| Prerequisites | None |

## RATIONALE

"Designing" is an art created by men with certain limitations. There are some definite principals through which one can learn art with more depth and detail. The aim of this subject is to teach all the basics related to designing including tools, materials and their application. By learning this subject, students may express themselves and their feelings on different surfaces by different Medias and if once student become able to express oneself, we reach near to our goal.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject, the learner will be able to:

1. As everyone is known to the fact that the basics and fundamentals of any subject or field are to be learnt extensively for strong foundation.
2. So as in the field of Textile Designing also it is necessary to learn the conceptual importance of Drawing, Lines, Textures, Compositions and Formations.
3. Therefore, in this subject all these basics are being put on theory cum practical aspects to accomplish the designing part.
4. Hence it is an important learning to get fully acquainted and understanding for the execution of the perfect design and being an innovative designer with cost effectiveness.

## CONTENTS

1. Forming a composition of objects having three dimensional effect with water colors. 10
2. Forming a colored pícture Composition with animals and trees with poster colors. 10
3. Forming a colored picture composition with flowers and butterflies on oil sheet with oil colors.
4. Preparation of two textile designs, one Modern and one Traditional with enlarged and reduced version.
5. Abstract art on any media. 10

## REFERENCE BOOKS

Sharma \&Agarwal
Phillips \& Peter.
E.A. Seguy.

1. Roopprad Art Mooladhar.
2. Repeat Pattern
3. Abstract and Floral Design
4. Encyclopedia of Textiles.
"-"-"-"-"-"-"-"-"-"ت"

COMMUNICATION SKILLS IN ENGLISH II-LAB

| Course Code | TD-2008 (Common in All Branches of Non Engineering) |
| :--- | :--- |
| Course Title | Communication Skills in English - II Lab |
| Number of Credits | 1(L-0 T-0, P-2) |
| Prerequisites | None |

## RATIONAL

For business purposes at every level of performance, language remains the most commonand important means of communication. A diploma holder who wants to join an industry or organization needs to possess adequate knowledge and skills in language its usage and presentation. Proficiency both in written and spoken language is required to be developed among the diploma holders

## SUBJECT LEARNING OUTCOMES(SLOS)

The first year syllabus will develop among students the basic knowledge and skills related to syntax and semantics of English Language.

## CONTENTS

1. Delivering Short Discourses :

P
1.1. About Oneself
1.2. Describing a Place, Person, an Object
1.3. Describing a Picture, Photo
2. Group Discussion :
2.1. Developing skills to initiate a discussion [How to open]
2.2. Snatching initiative from others [Watch for weak points, etc.]
3. Interview Skills

3.1. Desirable Qualities
3.2. Preparation
3.2.1. Know the Company
3.2.2. Know Yourself
3.2.3. Review Common Interview Questions
3.2.4. Prepare Questions You Want to Ask the Interviewer
3.3. Using Proper Verbal and Non-Verbal Cues
3.4. Exhibiting Confidence
3.5. Tips for Success

Note:

1. The Medium of teaching and examination will be English.
2. At least on question will be set from each unit.
3. No theory question will be set from syllabus of practicals.
4. Intermediate English Grammar

Raymond Murphy,Cambridge University Press
8. English Grammar, Usage \& Composition Tickoo\& Subramanian, Pub: S. Chand and Co.
9. A Practical Eng. Grammar (and its Exercise Books) Thomson and Martinet, Pub: ELBS
10. High School English Grammar and Composition Wren \& Martin, Pub: S. Chand and Co.
11. ABC of Common Grammatical Errors

Nigel D Turton, Macmillan India Ltd.
12. Soft Skills

Dr. K. Alex, Pub: S. Chand and Co.

| Course Code | TD-2009 (Common in All Branches of Non Engineering) |
| :--- | :--- |
| Course Title | Computer Applications - II Lab |
| Number of Credits | $1.5($ L-0 T-0, P-3) |
| Prerequisites | None |

## RATIONALE

Use of Computer is increasing for precise and speedy work so it is useful to provide computer knowledge to the students. The course provides knowledge of internet, emâil, web browsing and E-commerce. It also gives overview of Cyber Security and Informationtechnology Act.

The student will be able to understand the concept of Networks, internet and importance of Cyber security in the present time.

## SUBJECT LEARNING OUTCOMES (SLOS)

The student will be able to understand the concept of Networks, internet and importance of Cyber security in the present time.

CONTENTS
P

1. Study of different types of Networks and Network Topologies. 3
2. Visit to different Internet Sites. 3
3. Content Searching using Search Engines. 3
4. Downloading and uploading on Websites 3
5. Creating E-mail accounts, Composing and Sending E-mail. 3
6. Sending E-mail with attachments and signature. 3
7. Updating E-mail setting 3
8. Hands on Experience on Different types of E-commerce Websites 3
9. Exercise on Ontine shopping showing use of payment gateways 3
10. Identifying Cyber Attacks 6
11. Multimedia Applications 6

## REFERENCE BOOKS

1 Computer Fundamentals
2. Data Communications and Networking
3. Internet for Everyone
P.K. Sinha and P. Sinha, BPB publication.

Forouzan TMH
Alexis Leon \& Mathews Leon, Vikas Publishing House, New Delhi.

INTRODUCTION TO TEXTILES -II LAB

| Course Code | TD-2010 (Same as FT-2010) |
| :--- | :--- |
| Course Title | Introduction to Textiles-II Lab |
| Number of Credits | $.5(\mathrm{~L}-0$ T-0, P-1) |
| Prerequisites | None |

## RATIONALE

This subject may be considered as the "backbone" for the students of Textiles Design "Textile" is related with "Fiber" "Yarn" and "Fabric" which may be taught to students through this subject. Apart from these constructive aspects, we also teach the students the different decorating techniques, thus after going through this subject the students may become capable in understanding all other textile related subjects.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject, the learner will be able to:

1. Yarn preparation for weaving.
2. Basics of Dyeing, printing and finishes
3. The importance of textile.
4. General studies of fabric as selection and suitability, care of fabric etc.

CONTENTS

1. Identification test
1.1. Burning test
1.2. Chemical test
2. Identification of different types of yarn
3. Market survey

NOTE- prepare a file of all practical exercises done in the subject.

## REFERENCE BOOKS

1. Textiles Fiber to Fabric.
2. Textiles.
3. Textile Fibers.
4. Fundamental of Textiles and their Care.
5. Textile Science
6. Textile Science.
7. Fiber and Fabrics of Today.
8. Textile Products Selection Use and Care.
9. Textile Yarn Technology Structure and Appearance. Martindele,F.A.Scardina
10. Textiles.
11. The Standard Hand Book of Textiles.
12. Textiles in Perspective.
13. Fiber and Fabric of Today.
14. FromFibers to Fabric.
15. Understanding Textiles.
16. Processing of Fibers in Yarn.
17. Textile Fibers.
18. Textile Fabrics and their Selection.

Corbean
Norma Hallen and Jane Sadder
K.P. Hess

SushilaDhantyagi
J.T. Marsh

Vilenski
Mark
Alexander
J.C. Goswami ,J.G.

William Morries
A.J. Hall

Era Block and Smith
Hellon Thomson
Elizabeth Crale
PhyllipG.Tortora
V.Usenko
V.A.Shenai

SabelB.Wintate
19. Essentials of Textile.
20. Household Textiles and Laundry Work.
21. Chemical Technology of Fibrous Material.

Marjory L.Jeseph
DurgaDwelkar
Sadov

# FUNDAMENTAL THEORY OF TEXTILE DESIGN-II LAB 

| Course Code | TD-2011 (Same as FT-2011) |
| :--- | :--- |
| Course Title | Fundamental Theory of Textile Design-I Lab |
| Number of Credits | $2.5($ L-0 T-0, P-5) |
| Prerequisites | None |

## RATIONALE

To enhance the beauty of design, colour plays a very significant role in the expression of one design. Different color schemes provide different feeling and this impart a sense of enrichment to the design. "As the cloth is required to man, colour in required to design", this thinking itself clarifies that there is no use of textile design without adding colours. Thus the aim of this subject is to develop colour sense.

Sketching and drawing are the language of art. If one can sketch and draw the different objects freely, the main aims of this to teach the basics of sketching and drawing with different medium.

Designing is an art created by men with certain limitations. There are some different principles through which one can learn art with more depth and details with the help of different tools, materials and their application.

## SUBJECT LEARNING OUTCOMES (SLOS)

After successful completion of this subject, the learner will be able to:
4. Functions and uses of colour to develop pattern rècognition, memory and absorbing new information.
5. Locate, compare, understand and recall information of colour terminology faster.
6. The course helps students to development of new design aspects for novelty in fabric surface, textile products and various other textile materials in terms of colours and there developments.

## CONTENTS

1. Chromatic Circle Showing Different Colour mentioned in Theory. 22
2. Preparation of Sheets for each Colour Scheme. 23
3. Exercises on Fabric Sample Pieces: 20
3.1. Fabric sample Study through Imitation of colour and design.
3.2. Chroma and Value.

## REFERENCE BOOKS

1. Colour Source Book for Graphic Designers
2. Designer : Guide to Colour
3. Colour Harmony
4. Colour Trends in Two Volume.
5. Watson's Textile Design and Colour.
6. Textile Science.
7. Roopprad Kala keMooladhar
8. Repeat Patterns
9. Abstract and Floral Designs

SadaoNokamnar
SadaoNokamnar
Hideaki chijiwa
Products Ltd.
Z. Gresicki

Vilenski
Sharma/Agarwal.
Phillips and Peter
E.A.Segug
10. रूपकलाकेमूलाधार

शर्माएवंहटवाल

STRUCTURAL TEXTILE DESIGN-I LAB

| Course Code | TD-2012 (Same as FT-2012) |
| :--- | :--- |
| Course Title | Structural Textile Design-I Lab |
| Number of Credits | 1(L-0 T-0, P-2) |
| Prerequisites | None |

## RATIONALE

Structural fabric design is one of the most important part of Textile design in which the students have to learn and create designs for different woven fabrics, By learning the basics of weaving, students become aware of techniques of fabric construction Actually the techniques of dyeing and printing are applied mainly on constructed fabrics, hence the students should be able to construct at least basic fabrics so that they become aware of the designing of these fabrics.

SUBJECT LEARNING OUTCOMES (SLOS)
After successful completion of this subject, the learner will be able to:

1. Develop new weave structures.
2. Create new structures using color and weave effect.
3. Draw simple and compound structures.
4. Comparative study of weaves
5. Understand the fundaments of weave and their use
6. Preparation of loom

CONTENTS

1.1. By using four healds
1.2. Construct four samples.
2. Students shall prepare a file of sample collected from Market for the Weaves Studied and analysis.

## REFERENCE BOOKS

1. Principles of Weaving Mark Rebinson
2. Watson Textile Design and Colour Z.Gresicki
3. Textiles Fibre to FabrisBeanaredP.Corbmav
4. Under Standing Textiles. G.Tortora.
5. Handloom Weaving Technology Allen A. Fannin.

## GOVERNMENT OF RAJASTHAN

 BOARD OF TECHNICAL EDUCATION RAJASTHAN JODHPUR SEMESTER SCHEME-2020-21

III SEMESTER (SESSION 2021-2022 \& ONWARDS)

## ENVIRONMENTAL STUDIES-I

| Course Code | TD-3001 (Common in All Branches of Non Engineering) |
| :--- | :--- |
| Course Title | Environmental Studies-I |
| Number of Credits | 2(L-2 T-0, P-0) |
| Prerequisites | None |

## COURSE OBJECTIVES

Environmental study is a subject as per directions of Supreme Court / Govt. of India. Under Act. $51 \mathrm{~A}(\mathrm{~g})$ of our constitution it is our fundamental duty to protect our environment.

A diploma holder must have knowledge of different types of pollution so that she may help in balancing the eco system and controlling pollution by pollution control measures. She should also be aware of environmental laws related to the control of pollution.

## COURSE OUTCOMES

After completing the course the Learner will
Understand the importance of Environmental cleanliness
Gain knowledge about the causes of Water and Air pollution, theireffects and methods to check the same.
Have the knowlledge of different ttypes of solid waste and their management technices.

## COURSE CONTENTS

## 1. General :

1.1 Biotic and abiotic environment.
1.2 Adverse effects of Environmental Pollution
1.3 Control strategies
2. Water Pollution :
2.1 Water Quality Standards
2.2 Surface and underground water sources
2.3 Impurities in water and their removal
2.4 Adverse effects of domestic waste water and industrial effluent to surface water sources
2.5 Self purification of streams
3. Air Pollution :
3.1 Sources of air contaminants
3.2 Adverse effects on human health
3.3 Measures to check air pollution
3.4 Greenhouse effect
3.5 Global warming
3.6 Acid rain
3.7 Ozone depletion
4. Solid Waste Management :
4.1 Introduction to solid waste
4.2 Its collection and disposal
4.3 Recovery of resources
4.4 Sanitary land-filling

### 4.5 Vermi-composting <br> 4.6 Hazardous waste management

## REFERENCE BOOKS :

1. Patyavaran Shiksha \& Dr. V.K. Vijay
2. Patyavaran Adhyayan

Dr. B.C. Jat
3. Patyavaran Avabodh
4. Environmental chemistry and pollution control :
5. Ecology concepts and application :
6. Environmental protection
7. Environmental science
8. Solid waste management :
9. पर्यावरण विनाश के कगार पर

Dr. A.N. Mathur, Dr. N.S. Rathore
Dr. Ram Kumar Gujar
Dr. D.D. Ojha
S.S. Dora

Manuel C. Muller
Emil T. Chanlett
Cumingham. Saigo
C.I.. Mantell

राजीव गुप्ता
11. पर्यावरण जीवों का आंगन प्रेमानन्द चंदोला
12. पर्यावरण (त्रैमासिक) पर्यावरण एवं वन मंत्रालय, नई दिल्ली
13. Panda, New letter WWF-India, New Delhi

## DYEING TECHNOLOGY-I

| Course Code | TD 3002 |
| :--- | :--- |
| Course Title | DYEING TECHNOLOGY-I |
| Number of Credits | $4($ L-4, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Dyeing is the application of dyes or pigments on textile material such as fibre, yarns and fabrics with the goal of colour with desired colour fastness. Before dyeing pre-treatments of dyeing such as desizing, scouring, bleaching and mercerization play a vital role in processíng. Dyeing process involves interaction between the dye and the fibre as well as the movement of dye into the internal parts of the fibre. The textile designer should have a deep understanding of the application of dyes on various types of fabric; this helps in creating different designs in the printing process.

## COURSE OUTCOMES-

- To learn about the necessity and application of various pre-treatment given to textile materials during the dyeing process.
- Understand the requirements of pre-treatment in the wet processing of textile materials.
- To understand the dyeing principal of various cellulosic, Protein and synthetic fibres.
- To Learn the different types of machinery used for dyeing and pre-treatments.
- Select the dyes and recipe for colouring the various fabrics.


## COURSE CONTENTS

1. Introduction- Flow of textile material in wet processing 4
2. Brief study Pre-Treatments before dyeing on cotton, Wool and silk. 20
2.1. Singeing
2.2. Desizing
2.3. Scouring
2.4. Bleaching

2,5. Mercerisation
3. Classification of Dyes 4
4. Auxiliaries of Dyeing 8
5. Terminology and calculation of dyeing 8
5.1. Shade percentage
5.2. Exhaustion percentage
5.3. Pick up Percentage
5.4. Stock solution
6. Detail study of Direct Dye- Classification, Characteristics, Effect of electrolyte, Application and After Treatments.

## REFERENCE BOOKS:

1. Textile Science
2. Chemistry of Textile Auxiliaries
3. Cotton Piece Dyeing Gokhale and Shah
4. Chemistry of Dyes and Principle of Dyeing Shenai
5. Technology of Dyeing
6. Technology of Printing
7. Technology of Dyeing Shenai
8. The Alternative Printing Handbook. Chris TreweekandZeitly

8 Block Printing on Textiles
9 Study of Contemporary Textiles Craft of India Block Ptg.

Vilenski
Shenai

Crikson
Bijoy Chandra
10 Thomas and Hudson manual of Textile printing.

11 Textile printing.
12 Textile printing.
13 Dictionary of Dyes and Dyeing
14 Dyeing and Chemical Technology of Textile Fibres.
15 An Introduction of Textile Printing.
16 Handbook of Textile Fibres, Dyes and Finishes.
17 Textile Science
18 A Dictionary of Dyes and Dyeing
19 A Dictionary of Dyes and Dyeing
20 A Glimpse on Chemical Technology

Joyce storey
Tim mara
K.G. Ponting

TertmanGrittin
Clarke.
Needles.
J.T. Marsh.

Belland Ayman
Gooch
R.R.Chakraverty

## STRUCTURAL TEXTILE DESIGN -II

| Course Code | TD 3003 |
| :--- | :--- |
| Course Title | Structural Textile Design II |
| Number of Credits | 4 (L-4, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Structural fabric design is one of the most important part of Textile design in which the students have to learn and create designs for different woven fabrics, By learning the basics of weaving, students become aware of techniques of fabric construction Actually the techniques of dyeing and printing are applied mainly on constructed fabrics, hence the students should be able to construct at least basic fabrics so that they become aware of the designing of these fabrics.

## COURSE OUTCOMES-

After successful completion of this course, the students should be able to;

- Develop new weave structures.
- Create new structures using color and weave effect.
- Draw simple and compound structures.
- Comparative study of weaves
- Understand the fundaments of weave and their use


## COURSE CONTENTS

## 1. Types of Loom, loom motions and shedding mechanisms' Loom.

### 1.1 Classification of foom

1.1.1 Projectile loom
1.1.2 Airjet loom
1.1.3 Waterjet loom
11.4 Rapier loom

### 1.2 Loom motions

1.2.1 Primary motions
A. Shedding
B. Picking
C. Beating
1.2.2 Secondary Motions
A. Let off motion
B. Take-up motion
1.2.3 Auxiliary motions
A. Study of warp stop motion
B. Study of weft stop motion

### 1.3 Shedding Mechanism

1.3.1 Tappet shedding
1.3.2 Dobby shedding
1.3.3 Jacquard Shedding
2. Yarn count system and its use ..... 8
3. Twill weave ..... 8
3.1 Introduction to twill weave
3.2 Characteristics of twill weave
3.3 End product of twill weave
3.4Method of interlacing yarns to make twill weave
3.5 Classification of twillweave
4. Derivatives of twill weave ..... 20
4.1 Broken twill.
4.2 Zigzag/waved/pointed twill weave
4.3 Diamond design.
4.4 Diaper design.
4.5 Diagonal design.
4.6 Elongated design.
4.7 Herring bone twill.
4.8 Shaded twill.
4.9 Stepped twill.
4.10. Combined twill.

## REFERENCE BOOKS:

1. Principles of Weaving Mark Rebinson
2. Watson Textile Design and Colour Z.Gresicki
3. Textiles Fibre to FabrisBeanaredP.Corbman
4. Under Standing Textiles. G.Tortora
5. Handloom Weaving Technology Allen A. Fannin.
6. Fabric Structure and Design, Dr. V. Subramaniam
7. Fabric forming by Hasmukbrai
8. Weaving calculation by R. Sen Gupta
9. Principle of weaving by R. Marks and ATC Robinson
10.Watson's Advance Textile Design by Z.J. Grdsicki

TRADITIONAL INDIAN TEXTILES- I

| Course Code | TD 3004 |
| :--- | :--- |
| Course Title | TRADITIONAL INDIAN TEXTILES -I |
| Number of Credits | $4($ L-4, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

"Tradition" is what going on since long. Traditional textiles in fact create a ground for current textiles. With time, taste and liking changes that make influence on designs and usually the changed aspects of a design are something used on traditions.

India has been so rich in traditional textiles that even today we find impact of these textiles not only in our home market but also in the world market; hence the students must be aware of traditional textiles.

## COURSE OUTCOMES-

- Be able to appreciate traditional textiles of India viz a viz their material, colours, texture and motifs
- Be able to identify and appreciate various Indian traditional crafts/garments and accessories
- Understand the importance of textile crafts with the historical perspective, the impact of modernization and their contemporary status.
- Be able to apply Indian traditional designs and motifs for contemporary designs
- Be able to identify traditional Indian textiles and their product diversification in the local market


## COURSE CONTENTS

## 1. Study of traditional Indian Textiles in reference to <br> $\qquad$

1.1 Historical significance
1.2 Construction Techniques
1.3 Styles
1.4 Colours\&motifs
1.5 Centers of Production
1.6 Present significance textiles should be studied:
1.6.1 Kanchipuram
1.6.2 Brocode
1.6.3 Patola
1.6.4 Paithini
1.6.5 Kullu Shawl
1.6.6 Jamdani
1.6.7 Carpet
2. State wise name of different Indian traditional Textiles.

REFERENCE BOOKS

1 Hand Woven Fabrics of India
2 Indian Crafts
3 Traditional Indian Textiles
4 Masterpieces of Indian Textiles

Dhamija/ Jain
D.N. Saraf

Gillow John.
Rustam J. Metha

## 5 Brocades of Ahmedabad

6 South Indian Traditions of Kalamkari
7 Costumes and Textiles of India
8 Miniature Painted Techniques
9 Kashmiri and its Shawls
10 Indian Textiles

Jhala, Uma De.
Lolikavaradrajew
BrijBhushan
Sumo Hendra
Ananymous
Irwin John.

DRAWING AND RENDERING -I LAB

| Course Code | TD 3005 |
| :--- | :--- |
| Course Title | DRAWING AND RENDERING -I LAB |
| Number of Credits | 2 (L-0, T-0, P-4) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Rendering is something done to the particular drawing to make it more live, more emphasized and more creative. Drawing and Rendering is of utmost importance for the students perfect designer. It includes each and every aspect of drawing, the different natural and man made objects with different textures and creations.

## COURSE OUTCOMES

- Through this students will be able to create and understand visualization of drawing.
- It helps to draw the three-dimensional designs by adding physical attributes and details by creating live images through various techniques like shading, texture, shadow \& reflection.
- It would contain geometry, viewpoint, texture, lighting, and shading information as a description of the virtual scene.


## COURSE CONTENTS

1. Study of the following with pencil, pen \& ink and water colours:-

## 28

1.1 Sea shells, sea animals, fishes
1.2 Animals.
1.3 Feathers.
1.4 Stones and rocks.
1.5 Monuments \& building.
1.6 Jewellery
2. Conversion of already drawn forms into geometrical and abstract forms with poster and water colours.
3. Composition of any three forms from design point of view with pen \&ink and poster colours, on 9"x9".sheet.
NOTE : A sketch file for first exercises shall be maintained by students having 3 drawings of each topic with at least 3 different angles.

## REFERENCE BOOKS :

1 Shells
2 Gems and Jewels
3 Masterpieces of Indian Jewellery
4 Frany Goldfish Culture
5 The animal kingdom
6 Garden Plants
7 wild life: the beauty of animal
8 How to Draw \& Paint
9 learn to paint wild life
10 How Invertebrates Live

Mary saul.
Benjamin Zucker.
Jamila Brijbhushan.
Frank W.Orme.
Cavendish
Michael Wright
Bellanry
Stan Smith
Martiu kuowelding
Kaya Mash.

COMPUTER AIDED TEXTILE DESIGN - I LAB

| Course Code | TD-3006 |
| :--- | :--- |
| Course Title | COMPUTER AIDED TEXTILE DESIGN - I LAB |
| No. Of Credits | $2.0($ L-0,T-0, P-4) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

The students will learn web terminology. There are many advantages using CAD/CAM in the textile industry including the ability to more quickly and efficiently make changes to design new design, via digital files CATD systems also facilitate communication among these involved in design and other processes.

Software helps students to use their creativity to make new designs.

## COURSE OUTCOMES-

1. Throughout this course some learning outcomes should be acquired by the students that meet the objective of this course-

- Students shall have skill to conceptualize and create various types of design.
- Students are able to learn -
- Working with objects.
- Working with lines, outlines and shapes.
- Working with layers.
- With the help of the tools students can add a great degree of dimensional effect of richness to drawings.


## COURSE CONTENTS

## REFERENCE

1. Qlevél module-M 1.2 Internal\& web page design - V.K. Jain
2. Corel draw $\mathrm{x} 6, \mathrm{x} 5, \mathrm{x} 7$.

Illustrator.
4. MS Office master collection [MS Office 2000 for windows (Sagan)]

## DYEING TECHNOLOGY I LAB

| Course Code | TD 3007 |
| :--- | :--- |
| Course Title | DYEING TECHNOLOGY-I LAB |
| Number of Credits | $1.5($ L-0, T-0, P-3) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Dyeing is the application of dyes or pigments on textile material such as fibre, yarns and fabrics with the goal of colour with desired colour fastness. Before dyeing pre-treatments of dyeing such as desizing, scouring, bleaching and mercerization play a vital role in processíng. Dyeing process involves interaction between the dye and the fibre as well as the movement of dye into the internal parts of the fibre. The textile designer should have a deep understanding of the application of dyes on various types of fabric; this helps in creating different designs in the printing process.

## COURSE OUTCOMES-

- To learn about the necessity and application of various pre-treatment given to textile materials during the dyeing process.
- Understand the requirements of pre-treatment in the wet processing of textile materials.
- To understand the dyeing principal of arious cellulosic, Protein and synthetic fibres.
- To 「earn the different types of machinery used for dyeing and pre-treatments.
- Select the dyes and recipe for colouring the various fabrics.


## PRACTICALS

1. Desizing of grey cottonfabric
2. Scouring of desized cotton fabric 4
3. Scouring of Blended fabrics 4
4. Bleaching of seoured cotton with hydrogen peroxide or bleaching powder. 6
5. Mercerisatien of bleached cotton fabric 4
6. Direct dye on cotton fabric with different shade percentage. 9
7. Effects of exhausting agent (Common salt) on shade percentage in direct dye. 6

## REFERENCE BOOKS:

1. Textile Science
2. Chemistry of Textile Auxiliaries
3. CottonPiece Dyeing
4. Chemistry of Dyes and Principle of Dyeing Shenai
5. Technology of Dyeing Shenai
6. Technology of Printing Shenai
7. The Alternative Printing Handbook.

8 Block Printing on Textiles
9 Study of Contemporary Textiles Craft of India Block Ptg.

Chris TreweekandZeitly

0 Thomas and Hudson manual of Textile printing.

11 Textile printing.
12 Textile printing.
13 Dictionary of Dyes and Dyeing
14 Dyeing and Chemical Technology of Textile Fibres.
15 An Introduction of Textile Printing.
16 Handbook of Textile Fibres, Dyes and Finishes.
17 Textile Science
18 A Dictionary of Dyes and Dyeing
19 A Dictionary of Dyes and Dyeing
20 A Glimpse on Chemical Technology

Joyce storey
Tim mara
K.G. Ponting

TertmanGrittin
Clarke.
Needles.

## J.T. Marsh.

Bell and Hyman
Gooch.
R.P.Chakraverty
*****

PRINTED FABRIC DESIGN - I LAB

| Course Code | TD 3008 |
| :--- | :--- |
| Course Title | Printed Fabric Designs - I LAB |
| Number of Credits | 2 (L-0, T-0, P-4) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Design brings together all elements which serve towards proposed end. A design must necessarily be based on certain specific factors and elements essential for its making.

This subject of printed fabric design refers to the process of creating designs for different type of fabrics and students of textile design need to be able to understand how to produce a textile design for a particular fabric type, with consideration to many other components like weather, age group, methods of printing and use etc.

## COURSE OUTCOMES-

The course is focused on enhancing imaginative creativity and technical skill. This subject aims at imparting basic knowledge of design and its principles and elements. After completing the course, student shall be able to-

- Identify the influencing factors for the development and evolution of a specific printed fabric design.
- Understand the basic requirement for print design development.
- Identify the pattern repeat and layout.
- Understand the forms and color combinations.
- Identify the types of print.


## CONTENTS

1- Elements and principles of designing.
2- Understanding the placement of design to form pattern

* drop $1 / 4$ drop, $1 / 2$ drop, $*$ drop reverse *unit repeat
* Sateen basis *diamond *rectangular * ozee

3 - free hand sketching, enlargement and reduction of motif/design.
4- Understanding the different methods and styles of printing.
5- To understand the above, market survey should be done by students.
6-A file of shamples collected during market survey should be prepared by students for proper understanding of different designs.

## PRACTICAL

## Suggested Exercises:

1. Children Wear:
1.1 Theme: Animated form

For: Summer wear
Fabric: Rubiavoil
Method: Block Printing
Colorscheme: Maximum Four colors

$$
\begin{aligned}
& \text { 1.2. Theme: Texture } \\
& \text { For: Evening Wear } \\
& \text { Fabric: Cots wool } \\
& \text { Method: screen printing } \\
& \text { ColorScheme: of your own choice }
\end{aligned}
$$

2. Teenagewear:
2.1 Girls Wear:
2.1.1 Theme: Floral and Geometrical Pattern For: Dress material
Fabric: cotton
Method: Block Printing
Color Scheme: According to the theme
2.1.2 Theme: Modern Design

For: Party Wear Dress Material
Fabric: Silk
Method: Screen Printing
ColorScheme: Of your own choice

### 2.2 Boys Wear:

Theme: Decorative Motif
9
For: Bush shirt
Fabric: Cambric
Method: Block Printing
ColorScheme: of your own choice
3. Ladies wear:

Theme: Jewellery
For: Evening Wear
Fabric: Silk
Method: Screen Printing
ColorScheme: Precious stone Color
Note: The essential theory should be taught during the practical subject.

## Reference Books:

1. The Encyclopedia of patterns and motives Dorothy Bosomworth
2. Textile Designidea and application CloelSokeliv, PBC International Inc New York
3. Ideas and Techniques for fabric designing Linda flower
4. The family of flowers Mea Allan
5. Masterpieces of Indian jewellery JamilaBrijBhushan
6. Typographical Ornaments Luidl Huber
7. Gems and Jewels Benjamin Zucber
8. Optical and Geometrical Pattern and Design Spyros Horbis
9. Zoo animals Frank W. Layne

ENVIRONMENTAL STUDIES-I LAB

| Course Code | TD-3009 (Common in All Branches of Non Engineering) |
| :--- | :--- |
| Course Title | ENVIRONMENTAL STUDIES-I LAB |
| Number of Credits | $1.0($ L-0, T-0, P-2) |
| Prerequisites | None |

## RATIONALE

Environmental study is a subject as per directions of Supreme Court / Govt. of India. Under Act. $51 \mathrm{~A}(\mathrm{~g})$ of our constitution it is our fundamental duty to protect our environment.

A diploma holder must have knowledge of different types of pollution so that she may help in balancing the eco system and controlling pollution by pollution control measures. She should also be aware of environmental laws related to the control of pollution.

## Course Outcomes

After completing the course the Learner will

- Understand the extent of Air pollution in their city.
- Understand the extent of Water pollution in their city.
- Know about the Ph value of water, hardness and TDS of water, their importance method of determination .
- Have knowledge of solid waste management of their city


## PRACTICALS

1. Visit to the important circles and measurment of Air Quality Index
2. Determination of Ph Value of tap Water
3. Determination of Hardness of tap Water by EDTA Method
4. Determination of TDS of tap Water
5. Visiting the local agency to Prepre the report of solid waste management of the city .
6. Plantation

TRADITIONAL INDIAN TEXTILES -I LAB

| Course Code | TD 3010 |
| :--- | :--- |
| Course Title | TRADITIONAL INDIAN TEXTILES-I LAB |
| Number of Credits | 1 (L-0, T-0, P-2) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

"Tradition" is what going on since long. Traditional textiles in fact create a ground for current textiles. With time, taste and liking changes that make influence on designs and usually the changed aspects of a design are something used on traditions.

India has been so rich in traditional textiles that even today we find impact of these textiles not only in our home market but also in the world market, hence the students must be aware of traditional textiles.

## COURSE OUTCOMES

- Be able to appreciate traditional textiles of India viz their material, colours, texture and motifs
- Be able to identify and appreciate various Indian traditional crafts/garments and accessories
- Understand the importance of textile crafts with the historical perspective, the impact of modernization and their contemporary status.
- Be able to apply Indian traditional designs and motifs for contemporary designs
- Be able to identify traditional Indian textiles and their product diversification in the local market


## PRACTICALS

1. Students shall prepare a sample file by collecting 5 motifs of each topic. 10
2. Exercises -
2.1 Kanchipuram - Border
2.2 Brocode - Border over
2.3 Patola - Allover
2.4 Kullu shaw - Border
2.5 Miniature painting on fabric

## REFERENCE BOOKS

1 Hand Woven Fabrics of India
2 Indian érafts
3 Traditional Indian Textiles
4 Masterpieces of Indian Textiles
5 Brocades of Ahmedabad
6 South Indian Traditions of Kalamkari
7 Costumes and Textiles of India
8 Miniature Painted Techniques
9 Kashmiri and its Shawls
10 Indian Textiles

Dhamija/ Jain
D.N. Saraf

Gillow John.
Rustam J. Metha
Jhala, Uma De.
Lolikavaradrajew
Brij Bhushan
Sumo Hendra
Ananymous
Irwin John.

# GOVERNMENT OF RAJASTHAN BOARD OF TECHNICAL EDUCATION RAJASTHAN JODHPUR 

## SEMESTER SCHEME-2020-21



IV SEMESTER
(SESSION 2021-2022 \& ONWARDS)

## ENVIRONMENTAL STUDIES-II

| Course Code | BC-4001 (Common in All Branches of Non Engineering) |
| :--- | :--- |
| Course Title | ENVIRONMENTAL STUDIES-II |
| Number of Credits | 2(L-2 T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Environmental study is a subject as per directions of Supreme Court / Govt. of India. Under Act. $51 \mathrm{~A}(\mathrm{~g})$ of our constitution it is our fundamental duty to protect our environment.

A diploma holder must have knowledge of different types of pollution so that she may help in balancing the eco system and controlling pollution by pollution control measures. She should also be aware of environmental laws related to the control of pollution.

## COURSE OUTCOMES-

After completing the course the Learner will

- Understand the importance of Environmental cleanliness
- Gain knowledge about the causes of Land pollution, Land erosion and prevention
- Undrstand about Biodiversity and ecosystems
- Water harvesting methods and about the Rural Sanitation
- Know the different Non conventional energy sources and their advantages


## COURSE CONTENTS

1. Land Pollution :

1.1 Soil conservation
1.2 Land erosion
1.3 Afforestation
2. Ecology :
2.1 Basics of species
2.2 Biodiversity
2.3 Population dynamics
2.4 Energy flow
2.5 Ecosystems
3. Water Harvesting and Rural Sanitation :
3.1 Water harvesting techniques
3.2 Different schemes of Rural Water Supply in Rajasthan
3.3 Rural Sanitation
3.3 Septic Tank
3.5 Collection and disposal of wastes
3.6 Bio-gas
3.7 Community Awareness and participation
4. Non Conventional Energy Sources :
4.1 Non-Conventional (Renewable) sources of energy
4.2 Solar energy, Wind energy, Bio-mass energy, Hydrogen energy

## REFERENCE BOOKS :

1. Patyavaran Shiksha \& Dr. V.K. Vijay
2. Patyavaran Adhyayan Dr. B.C. Jat
3. Patyavaran Avabodh
4. Environmental chemistry and pollution control :
5. Ecology concepts and application :
6. Environmental protection
7. Environmental science
8. Solid waste management :
9. Introduction to Environmental
10. Concept of Ecology, 1991 Edward J Kormondy
11. Ecology 1975
12. Environmental Engineering
13. Environmental Impact Assessment
14. Environmental Technologies for Dr. Upendra Pandel Sustainable Development
15. Environmental Pollution \& Management
16. पर्यावरण विनाश के कगार पर
17. पर्यावरण जीवों का आंगन प्रेमानन्द
18. पर्यावरण (त्रैमासिक)
19. Panda, New letter

Gilbert M Masters
Dr. A.N. Mathur, Dr. N.S. Rathore
Dr. Ram Kumar Gujar
Dr. D.D. Ojha
S.S. Dora

Manuel C. Muller
Emil T. Chanlett
Cumingham. Saigo
C.I.. Mantell

Odum
Peavy, Rowe, Tehobaniglum
Mc Graw Hill, NewYork, 1977

Dr. M.P. Poonia
V.K. Kohli \& Vikas Kohli

राजीव गुप्ता
चंदोला
पर्यावरण एवं वन मंत्रालय, नई दिल्ली
WWF-India, NewDelhi

## DYEING TECHNOLOGY-II

| Course Code | TD 4002 |
| :--- | :--- |
| Course Title | DYEING TECHNOLOGY-II |
| Number of Credits | 4 (L-4, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Dyeing is the application of dyes or pigments on textile material such as fibre, yarns and fabrics with the goal of colour with desired colour fastness. Before dyeing pre-treatments of dyeing such as desizing, scouring, bleaching and mercerization play a vital role in processíng. Dyeing process involves interaction between the dye and the fibre as well as the movement of dye into the internal parts of the fibre. The textile designer should have a deep understanding of the application of dyes on various types of fabric; this helps in creating different designs in the printing process.

## COURSE OUTCOMES-

- To learn about the necessity and application of various pre-treatment given to textile materials during the dyeing process.
- Understand the requirements of pre-treatment in the wet processing of textile materials.
- To understand the dyeing principal of various cellulosic, Protein and synthetic fibres.
- To Learn the different types of machinery used for dyeing and pre-treatments.
- Select the dyes and recipe for colouring the various fabrics.


## COURSE CONTENTS

1. Study the classification, characteristics and application of following dyes-
1.1. Reactive dye.
1.2. Acid dye
1.3. Sulphur Dye
1.4. Vat dye
1.5. Disperse Dye
2. Dyeing of blended fabric 12
3. Study the construction and application of following dyeing machines- 10 3.1. Karn Dyeing machines- Cone, Hank
3.2. Fabric Dyeing Machines- Jigger, Winch, Beam and Jet
4. Fatness of dyeing on fabric

## REFERENCE BOOKS:

1. Textile Science
2. Chemistry of Textile Auxiliaries
3. Cotton Piece Dyeing
4. Chemistry of Dyes and Principle of Dyeing
5. Technology of Dyeing
6. Technology of Printing
7. The Alternative Printing Handbook.

Vilenski
Shenai
Gokhale and Shah
Shenai
Shenai
Shenai
Chris TreweekandZeitly

8 Block Printing on Textiles
9 Study of Contemporary Textiles Craft of India Block Ptg.

## Crikson

Bijoy Chandra
Mohanti\&Jagdish Prasad

10 Thomas and Hudson manual of Textile printing.

11 Textile printing.
12 Textile printing.
13 Dictionary of Dyes and Dyeing
14 Dyeing and Chemical Technology of Textile Fibres.
15 An Introduction of Textile Printing.
16 Handbook of Textile Fibres,
Dyes and Finishes.
17 Textile Science
18 A Dictionary of Dyes and Dyeing
19 A Dictionary of Dyes and Dyeing
20 A Glimpse on Chemical Technology

Joyce storey
Tim mara
K.G. Ponting

TertmanGrittin
Clarke.
Needles.
J.T. Marsh.

Bell and Hyman
Gooch.
R.P.Chakraverty
******

## STRUCTURAL TEXTILE DESIGN III

| Course Code | TD 4003 |
| :--- | :--- |
| Course Title | Structural Textile Design III |
| Number of Credits | 4 (L-4, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Structural fabric design is one of the most important part of Textile design in which the students have to learn and create designs for different woven fabrics, By learning the basics of weaving, students become aware of techniques of fabric construction Actually the techniques of dyeing and printing are applied mainly on constructed fabrics, hence the students should be able to construct at least basic fabrics so that they become aware of the designing of these fabrics.

## COURSE OUTCOMES-

After successful completion of this course, the students should be able to;

- Develop new weave structures.
- Create new structures using color and weave effect.
- Draw simple and compound structures.
- Comparative study of weaves
- Understand the fundaments of weave and their use


## COURSE CONTENTS

1. Fabric Analysis
1.1 Definition
1.2 Importance of fabric analysis
1.3 GSM and Coyer factor calculation
2. Fabric faults and their remedies

6
3. Satin and Sateen weave and their extension
3.1 Basic characteristic of satin/sateen weaves
3.2 Selection of move number
3.3 Strip and check effect of satin and sateen

Honeycomb weave
4.1 Classes of honey comb weave
4.2 Characteristics of ordinary honey comb
4.3 Characteristics of Brighten honey comb
5. Hucka back weave7
5.1 Characteristics of hucka back weave
5.2 End use of hucka back weave
6. Mock leno weave
6.1 Characteristics of mock leno weave
6.2 Kinds of structures are produced by mock leno weave

### 6.3Construction Principle

7. Crepe weave
7.1 Characteristics of crepe weave
7.2 Construction methods for crepe weave

## REFERENCE BOOKS:

1. Principles of Weaving Mark Rebinson
2. Watson Textile Design and Colour Z.Gresicki
3. Textiles Fibre to FabrisBeanaredP.Corbman
4. Under Standing Textiles. G.Tortora.
5. Handloom Weaving Technology Allen A. Fannin.
6. Fabric Structure and Design, Dr. V. Subramaniam
7. Fabric forming by Hasmukhrai
8. Weaving calculation by R. Sen Gupta
9. Principle of weaving by R. Marks and ATC Robinson
10.Watson's Advance Textile Design by Z.J. Grdsicki

TRADITIONAL INDIAN TEXTILES - II

| Course Code | TD 4004 |
| :--- | :--- |
| Course Title | TRADITIONAL INDIAN TEXTILES -II |
| Number of Credits | 1 (L-1, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

"Tradition" is what going on since long. Traditional textiles in fact create a ground for current textiles. With time, taste and liking changes that make influence on designs and usually the changed aspects of a design are something used on traditions. India has been so rich in traditional textiles that even today we find impact of these textiles not only in our home market but also in the world market, hence the students must be aware of traditional textiles.

## COURSE OUTCOMES-

- Be able to appreciate traditional textiles of India viz a viz their material, colours, texture and motifs
- Be able to identify and appreciate various Indian traditional crafts/garments and accessories
- Understand the importance of textile crafts with the historical perspective, the impact of modernization and their contemporary status.
- Be able to apply Indian traditional designs and motifs for contemporary designs
- Be able to identify traditional Indian textiles and their product diversification in the local market


## COURSE CONTENTS

1. Study of traditional Indian Textiles in reference to

8
1.1 Historical signfficance
1.2 Construction Techniques
1.3 Styles
1.4 Colours\& motifs
1.5 Centers of Production
1.6 Present significance textiles should be studied:
1.6. Chanderi
1.6.2 Maheshwari
1.6.3 Baluchar
1.6.4 Kashmiri embroidery
1.6.5 Kalamkari
1.6.6 Sanganeri
1.6.7 Bandhini
1.6.8 Ikat
2. State wise name of different Indian traditional Textiles.

## REFERENCE BOOKS

1 Hand Woven Fabrics of India
2 Indian Crafts
3 Traditional Indian Textiles

Dhamija/ Jain
D.N. Saraf

Gillow John.

4 Masterpieces of Indian Textiles
5 Brocades of Ahmedabad
6 South Indian Traditions of Kalamkari
7 Costumes and Textiles of India
8 Miniature Painted Techniques
9 Kashmiri and its Shawls

Rustam J. Metha
Jhala, Uma De.
Lolikavaradrajew
Brij Bhushan
Sumo Hendra
Ananymous

## DESIGN AND FASHION FORECASTING

| Course Code | TD 4005 |
| :--- | :--- |
| Course Title | DESIGN AND FASHION FORECASTING |
| Number of Credits | $4($ L-4, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

With the fast-paced nature of modern fashion production, trend forecasting has become a necessary tool to accurately predict the future needs and desire of consumers. It's also a way to generate fresh ideas for fashion Brands.

This trend forecasting course will provide you with the tools to research and spot trends, using a range of resources and visual imagery. Discover the importance of the impact trends. Explore the impact of lifestyle influences on fashion trends, from music to the arts, youth culture and social media. This online course will increase your awareness of trends, and their impact on the fashion industry as whole, and you'll hone the skills to spot them for yourself.

## COURSE OUTCOMES-

By the end of this course you will have;

* Learnt to identify a brand's sales model and target customer.
* Gained an understanding of how a brand will research trends for its target customer.
* Practiced predicting colour palettes from emerging trends.
* Developed your own macro-trend proposal.
* Learnt how contemporary life and cultural influences are impacting fashion trends.
* Gained insight into the roles of street style, bloggers and influencers, how they shape emerging trends, and how they can fit into marketing strategies.
* Gained some understanding of the contemporary debates around fashion trends, such as globalization and cultural appropriation.
* Researehed trends using mood boards.

Deyeloped and understanding of the main data gathering fashion trend companies, how they operate, and how they affect the business.
Received insider tips from your tutor, an industry expert.

## COURSE CONTENTS

1. Definition of fashion and forecasting 6
2. Fashion forecasting process
a. Fashion Trends and Cycle
b. Fashion Forecasting
c. Forecasting in apparel planning
3. Introducing Innovations
a. Characteristics of an innovations
b. The consumer adoption process: Fashion Fade and Classic
c. Consumer segmentation
4. Direction Change
a. Fashion Movement
b. Theory of fashion change
5. Colour forecasting
a. Dimensions of colour story
b. Colour in marketing
c. Consumer and psychology of colour
d. Language of colour
e. Forecasting with colour cycle
f. Colour research
6. Design and Style direction
a. The fashion geography
b. Collection of run way
c. Different designer with the same design concept
7. Factors affecting the fashion forecasting

4
8. Fashion designers

## REFERENCE BOOKS:

1. Fashion buying, Helen Goworek, Wiley-Blackwell.
2. Fashion art for the Fashion Industry, Rita Gersten, Fairchild Books.
3. Fashion Forecasting: a Mystery or a Method? Rita Perna, Images Publishing Group.
4. The Fashion Design Manual, Pamela Stecker, Macmillan Education.
5. The World of Federico Forquet: Italian Fashion, Interiors, Gardens Hardcover
6. The Fashion Book Hardcover - Illustrated,by Phaidon Editors
7. The World's Most Influential Fashion Designers: Hidden Connections and Lasting
8. Legacies of Fashion's Iconic Creators Hard by Noel Palomo-lovinski (Author)


COMPUTER AIDED TEXTILE DESIGN - II LAB

| Course Code | TD-4006 |
| :--- | :--- |
| Course Title | COMPUTER AIDED TEXTILE DESIGN - II LAB |
| No. Of Credits | 1.5 (L-0, T-0, P-3) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

The course has been designed to provide a detailed introduction \& study to different designing software.
The subject helps students to explore this creativity and innovation with innovativedesigns in context to CATD. Different software study helps to upgrade students skills towards present textile market scenario.

## COURSE OUTCOMES-

- Students will be able to learn sense of identity by using software towards design.
- Students will be able to connect with textile market
- Students will be able to become good communicators between industries \& colleges.
- Students will be able to develop problem solving \& designing skills.


## COURSE CONTENTS

1. Indesign master collection.
2. Tex Cad.
3. Corel/Photoshop. 8
4. Illustrator.
5. Design pamphlets, Brochures, Magazine by using studied software in reference to Textile Design.

## REFERENCE (Software)

1. In design Master Collection.
2. Tex Cad.
3. Illustrator.

Corel/Photoshop.

DYEING TECHNOLOGY II LAB

| Course Code | TD 4007 |
| :--- | :--- |
| Course Title | DYEING TECHNOLOGY-II LAB |
| Number of Credits | 1.5 (L-0, T-0, P-3) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Dyeing is the application of dyes or pigments on textile material such as fibre, yarns and fabrics with the goal of colour with desired colour fastness. Before dyeing pre-treatments of dyeing such as desizing, scouring, bleaching and mercerization play a vital role in processíng. Dyeing process involves interaction between the dye and the fibre as well as the movement of dye into the internal parts of the fibre. The textile designer should have a deep understanding of the application of dyes on various types of fabric; this helps in creating different designs in the printing process.

## COURSE OUTCOMES-

- To learn about the necessity and application of various pre-treatment given to textile materials during the dyeing process.
- Understand the requirements of pre-treatenent in the wet processing of textile materials.
- To understand the dyeing principal of karious cellulosic, Protein and synthetic fibres.
- To Learn the different types of maehinery used for dyeing and pre-treatments.
- Select the dyes and recipe for colouring the various fabrics.


## PRACTICALS

1. Reactive dye on the cotton fabric in different shade percentage 6
2. Acid dye on Woor Fabric in different shade percentage 4
3. Acid dye on Sikk Fabrie in different shade percentage 4
4. Sulphur dye on cotton fabric in different shade percentage 4
5. Vat dye on eotton fabric in different shade percentage 4
6. Disperse dye on Synthetic fabrics in different shade percentage 4
7. Dye on Blended fabrics (At least two) 13

## REFERENCE BOOKS:

1. Textile Soience
2. Chemistry of Textile Auxiliaries
3. Cotton Piece Dyeing
4. Chemistry of Dyes and Principle of Dyeing
5. Technology of Dyeing
6. Technology of Printing
7. The Alternative Printing Handbook.

8 Block Printing on Textiles
9 Study of Contemporary Textiles Craft of India Block Ptg.
10 Thomas and Hudson manual of Textile printing.

Vilenski
Shenai
Gokhale and Shah
Shenai

> Shenai
> Shenai
> Chris TreweekandZeitly
> Crikson
> Bijoy Chandra
> Mohanti\&Jagdish Prasad

11 Textile printing.
12 Textile printing.
13 Dictionary of Dyes and Dyeing
14 Dyeing and Chemical Technology of Textile Fibres.
15 An Introduction of Textile Printing.
16 Handbook of Textile Fibres, Dyes and Finishes.
17 Textile Science
18 A Dictionary of Dyes and Dyeing
19 A Dictionary of Dyes and Dyeing
20 A Glimpse on Chemical Technology

Joyce storey
Tim mara
K.G. Ponting

TertmanGrittin
Clarke.
Needles.
J.T. Marsh.

Bell and Hyman
Gooch.
R.P.Chakraverty

PRINTED FABRIC DESIGN - II LAB

| Course Code | TD 4008 |
| :--- | :--- |
| Course Title | Printed Fabric Designs - II LAB |
| Number of Credits | $1.5(\mathrm{~L}-0, \mathrm{~T}-0, \mathrm{P}-3)$ |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Printed fabric design is important because the student of textile design needs to be able to understand how to produce a design for a particular fabric type. In addition to this, they also need to be able to develop a textile design that is suitable for a given purpose.

Designer also required a good understanding of current trends colour awareness, suitability etc. in order that their designs are up-to-date and relevant for their and purpose.

This subject provides students with the right skill set to develop new design concept.

## COURSE OUTCOMES-

After completing the course, student shall be able to-

- Able to develop innovative and creative designs for diverse Textile Market.
- Identify the influencing factors for the development and evolution of a specific printed fabric design.
- Understand the basic requirement for print design development.


## CONTENTS

1- Understanding the different methods and styles of printing.
2- To understand the above, market survey should be done by students.
3- 6-A file of samples collected during market survey should be prepared by students for proper understandîng of different designs.

PRACTICAL

## Suggested Exercises:

1-Gents Wear:

## 9

Theme,Free hand
For:Kurta
Eabric:Cotton
Method: Free hand
Colour scheme: Minimum Three Colour
2. Theme: Of Your Own Choice (Ozee shape)

For: Shirts
Fabric:Poplin
Method: Screen Printing
Colour Scheme: Own Choice
3-Summer Coat
Theme: Geometrical Pattern
Fabric:Cotton
Method: Screen Printing

Colour scheme: Cool Colours
4- Beach Wear
Theme: Fishes and Sea Animals
Fabric:According to the Theme
Method: Screen Printing
Colour scheme: Minimum Three Colours
Note: The Essential theory should be taught during the practical's.

## REFERENCE BOOKS:

1 Ideas and Techniques for Fabric Designing
2 Focus on Nature
3 Tropical Aquarium Fisher
4 Optical and Geometrical Pattern and Design
 Spyros Horbis

ENVIRONMENTAL STUDIES-II LAB

| Course Code | TD-4009 (Common in All Branches of Non Engineering) |
| :--- | :--- |
| Course Title | ENVIRONMENTAL STUDIES-II LAB |
| Number of Credits | $1.0($ L-0, T-0, P-2) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Environmental study is a subject as per directions of Supreme Court / Govt. of India. Under Act. $51 \mathrm{~A}(\mathrm{~g})$ of our constitution it is our fundamental duty to protect our environment.

A diploma holder must have knowledge of different types of pollution so that she may help in balancing the eco system and controlling pollution by pollution control measures. She should also be aware of environmental laws related to the control of pollution.

## COURSE OUTCOMES-

After completing the course the Learner will

- Understand the extent of Land pollution in their city.
- Understand the local birds, plants, insects.
- Importance of Afforestation (Plantation)
- Haveawareness towards Environment


## PRACTICALS

1. Visit lo local area to document environmental assets-mountain/ desert / river / forest
2.Study of local birds, plants, insects
3.Plantation
4.Environmental awareness campaign through exhibitions

Note : After visits/ study, the students will prepare posters, charts, reports for exhibitions / presentations.

TRADITIONAL INDIAN TEXTILES -II LAB

| Course Code | TD 4010 |
| :--- | :--- |
| Course Title | TRADITIONAL INDIAN TEXTILES -II LAB |
| Number of Credits | 2 (L-0, T-0, P-4) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

"Tradition" is what going on since long. Traditional textiles in fact create a ground for current textiles. With time, taste and liking changes that make influence on designs and usually the changed aspects of a design are something used on traditions.

India has been so rich in traditional textiles that even today we find impact of these textiles not only in our home market but also in the world market; hence the students must be aware of traditional textiles.

## COURSE OUTCOMES-

- Be able to appreciate traditional textiles of India viz a viz their material, colours, texture and motifs
- Be able to identify and appreciate various Indian traditional crafts/garments and accessories
- Understand the importance of textile crafts with the historical perspective, the impact of modernization and their contemporary status.
- Be able to apply Indian traditional designs and motifs for contemporary designs
- Be able to identify traditional Indian textiles and their product diversification in the local market


## PRACTICALS

1. Students shall prepare a sample life by collecting 5 motifs of each topic.
2. Exercises -
2.1 Baluchar ..... 10
2.2 Kashmiri embroidery ..... 12
2.3 Kalamkari ..... 10
2.4 Sanganeri ..... 10
2.5 Bandhini ..... 10

## REFERENCE BOOKS

1 Hand Woyen Fabrics of India
Dhamija/ Jain
2 Indian Crafts
3 Traditional Indian Textiles
4 Masterpieces of Indian Textiles
5 Brocades of Ahmedabad
6 South Indian Traditions of Kalamkari
7 Costumes and Textiles of India
8 Miniature Painted Techniques
9 Kashmiri and its Shawls
10 Indian Textiles

Gillow John.
Rustam J. Metha
Jhala, Uma De.
Lolikavaradrajew
Brij Bhushan
Sumo Hendra
Ananymous
Irwin John.

## DRAWING AND RENDERING-II LAB

| Course Code | TD 4011 |
| :--- | :--- |
| Course Title | DRAWING AND RENDERING-II LAB |
| Number of Credits | 1.5 (L-0, T-0, P-3) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Rendering is a process to make a drawing look more realistic and magnificent. It helps to learn and create drawings that inspire. studying this makes textile students more capable of creating excellent arts. it encompasses various techniques like adding colors, textures, shadows, Improved Illumination, and Shading, Reflection and Perspective, etc. it enhances student's ability to master the fundamentals of designs.

## COURSE OUTCOMES-

- Through this students will be able to create and understand visualization of drawing.
- It helps to draw the three-dimensional designs by adding physical attributes and details by creating live images through various techniques fike shading, texture, shadow \& reflection.
- It would contain geometry, viewpoint, texture, lighting, and shading information as a description of the virtual scene.


## COURSE CONTENTS

1. Cross - Sectional Study of the Following with Pencil, Pen \& Ink and Water Colours:- 12
1.1 Fruits
1.2 Vegetables
1.3 Dry Fruits.
2. Study of Different Body Part for Expression.
3. Compositions :
3.1 Composition of Cross Sectioned forms from Design Point of view 09
with water and poster colour
3.2 compositions of cartoons with Pencil, Pen \& Ink and Water Colour.

NOTE : A Sketch File for First and second Exercises shall be Maintained by Students having 3 drawings of each Topic with at least 3 Different Angles.

## REFERENCE BOOKS:

1. Herbs
2. How to Draw \& Paint
3. Water Colour and Pai
4. The Thomson \& Hudson manual

Of rendering with pen and ink
5. Still life
6. How to draw: human figures
7. Modern Cartooning: Essential

Techniques for Drawing 8. Flowers, Fruit \& Vegetables

Hemphill
Stan Smith
Ran Ruson.
Gills \& robert
Fester series
Fester series
Christopher Hart
Giovanni Civardi

# GOVERNMENT OF RAJASTHAN 

BOARD OF TECHNICAL EDUCATION RAJASTHAN JODHPUR

## SEMESTER SCHEME-2020-21



V SEMESTER
(SESSION 2022-2023 \& ONWARDS)

PROFESSIONAL MANAGEMENT\& ENTREPRENEURSHIP-I

| Course Code | TD 5001 I (Common to all Branches of Non Engineering) |
| :--- | :--- |
| Course Title | Professional Management \& Entrepreneurship- |
| Number of Credits | 3 (L-3, T-0, P-0) |
| Prerequisites | None |

## Course objective:

To achieve the targets and goals in an organization, it is essential to have the knowledge of various facets of businesses and management. On the other hand, economic development of a nation much depends upon entrepreneurship development. With large pool of technically educated youth and open market system, a big number of youth can turn to be business ventures, generating employment opportunities and leading to better utilization of resources.

This course not only gives an insight into the basic concepts, principles and processes of management and business organizations but also understanding of different aspects of entrepreneurship development to young entrants.

## COURSE OUTCOMES

On completion of the course student will be able to:

1. Get familiarize with basics of business organization and management
2. Acquire the essential knowledge required for becoming an entrepreneur

## COURSE CONTENTS

1. Meaning and Scope of Business
1.1 Definition
1.1.1 Profession
1.1.2 Trade
1.1.3 Industry
1.2 Objectives of business and profession
2. Types of Business Organization
2.1 Brief description
2.2 Advantages and disadvantages of
2.2,1 Individual/Sole
2.2.2 Partnership
2.2.3 Cooperative
2.2.4 Private and Public limited organizations

## 3. Management Techniques

3.1 Leadership
3.2 Authority
3.3 Responsibility
3.4 Functions of Management
4. Human Resource Management
4.1 Functions \& Importance
4.2 Human resource planning
4.3 Training
4.4 Mentoring
4.5 Motivating

### 4.6 Grievances and their handling

## 5. Material Management

5.1 Duties of purchase department
5.2 Purchase order \& Contracts
5.3 Tendering Procedure
5.4 Tenders and their types
5.5 Tender related costs
5.6 Store Keeping
5.6.1 Objectives
5.6.2 Receipt and issue of material
5.6.3 Physical verification of store
5.6.4 Disposal methods
6. Entrepreneurship
6.1 Introduction, scope and need
6.2 Characteristics of Entrepreneurship
6.3 Classification of Industries
6.4 Types of Industries
6.5 Industrial Policy
7. Entrepreneurship Support Systems
7.1 Institutional support from state and central organizations viz NSIC, SIDO, KVIC, DIC, SIS SIDBI, SFC, RFC etc
7.2 Loan/credit facilities by banks and financial institutions
7.3 Facilities to Women entrepreneurs
7.4 Important legislations (Factory Act, Minimum Wage Act, Workmen Compensation Act etc)

## REFERENCES:

1. Industrial Engineering and Management, O P Khanna
2. Handbook of Small Scale Industry by P M Bhandari
3. Entrepreneurial Development, SS Khanka, S Chand
4. Industrial Engineering and Management, Sharma and Banga
5. Entrepreneurial Development Dr S S Khanka, S Chand Publishing
6. Management and Entrepreneurship, V K Sharma and O P Harkut, Scientific Publishers
7. Entrepreneurship Deyelopment Handbook, O P Harkut and J P Vaishnav, Scientific Publishers
8. Entrepreneurship Development And Management, J S Narang, Krishan Lal,V Dalal, Dhanpat Rai

PRINTING TECHNOLOGY -I

| Course Code | TD 5002 |
| :--- | :--- |
| Course Title | Printing Technology- I |
| Number of Credits | 2 (L-2, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Textile printing is the process of applying colour to fabric in definite patterns or designs which plays vital role in the decoration of fabric. All design comes on the fabric by means of printing therefore textile designer have to know the styles and methods of printing to apply his design to decorate the fabric.

## COURSE OUTCOMES-

After successful completion of this subject, the learner will be ableto

- Role of different printing ingredient in printing paste
- Various printing style used in fabric printing
- Different methods of fabric printing
- Printing on different quality of fabric with different dyes


## CONTENTS

1. Difference between dyeing and printing
2. Printing auxiliaries and their role in printing paste 5
3. Styles of printing
3.1 Direct style
3.2 Discharge style
3.3 Resist style
4. Brief study of various printing methods
5. Detail study of Block printing method
6. Printing of cellulosic fabric i.e. Cotton and Rayon with pigments and different dyes. 3
7. Printing of protein fiber i.e. Wool and silk with different dye 3

## REFERENCE BOOKS:

1. Textile Science
2. Chemistry of Textíle Auxiliaries
3. Cotton Piece Dyeing
4. Chemistry of Dyes and Principle of Dyeing
5. Technology of Dyeing
6. Technology of Printing
7. The Alternative Printing Handbook.

8 Block Printing on Textiles
9 Study of Contemporary Textiles
Craft of India Block Ptg.
10 Thomas and Hudson manual of Textile printing.
11 Textile printing.
12 Textile printing.
13 Dictionary of Dyes and Dyeing
14 Dyeing and Chemical Technology

Vilenski
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15 An Introduction of Textile Printing.
16 Handbook of Textile Fibres,
Dyes and Finishes.
17 Textile Science
18 A Dictionary of Dyes and Dyeing
19 A Dictionary of Dyes and Dyeing
20 A Glimpse on Chemical Technology

## Clarke.

Needles.
J.T. Marsh.

Bell and Hyman
Gooch.
R.P.Chakraverty

## STRUCTURAL TEXTILE DESIGN- IV

| Course Code | TD 5003 |
| :--- | :--- |
| Course Title | Structural Textile Design- IV |
| Number of Credits | 4(L-4, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Structural fabric design is one of the most important part of Textile design in which the students have to learn and create designs for different woven fabrics, By learning the basics of weaving, students become aware of techniques of fabric construction Actually the techniques of dyeing and printing are applied mainly on constructed fabrics, hence the students should be able to construct at least basic fabrics so that they become aware of the designing of these fabrics.

## COURSE OUTCOMES

After successful completion of this course, the students should be able to;

- Develop new weave structures.
- Create new structures using color and weave effect.
- Draw simple and compound structures
- Comparative study of weaves
- Understand the fundaments of weave and their use


## CONTENTS

1. Bedford cords
1.1 Classification of Bedford cords
1.2 Plain face Bedford cord
1.3 Twill face Bedford cord
2. Welts and Piques
2.1 Classification of welt structure
2.2 Ordinary welt structure
2.3 Weft wedded welts
2.4 Fast back welt
3. Backed Fabric
3.1 Principle of construction
3.2 Warp backed fabrics
3.3 Weft backed fabrics
3.4 Comparisons between warp and weft backed fabric
4. Pile fabrics
4.1 Classification of pile fabric
4.2 Weft pile fabric
4.3 Types of velveteen or weft pile fabric
4.4 Warp pile fabric
4.5 Turkish or Terry pile
4.6 Pile formation in terry
4.7 Various types of terry weave design
5. Extra warp and extra weft figured fabrics
5.1 Methods of production
5.2 Method of removal surplus figuring thread
5.3 Figuring with extra single colour and double colour warp thread
5.4 Figuring with extra single colour and double colour weft thread
5.5 Comparisons between extra warp and extra weft figuring
6. Double cloth
6.1 Classification of double cloth fabric
6.2 Self stitched double cloth
6.3 Double cloth with wedded thread
6.4 Centre stitched double cloth
7. Basic aspects of colour and its effect on weave
7.1 Factors affecting luster of textile material
7.2 Colour and weave effect
7.3 Classification of Colour and weave effect
7.4 Effect produced by simple colour and weave combination

## REFERENCE BOOKS:

1. Principles of Weaving Mark Rebinson
2. Watson Textile Design and Colour Z.Gresicki
3. Textiles Fibre to FabrisBeanaredP.Corbman
4. Under Standing Textiles. G.Tortora.
5. Handloom Weaving Technology Allen A. Fannin.
6. Fabric Structure and Design, क्तण टण"नइतंउंदपंउ
7. Fabric forming by Hasmukhrai
8. Weaving calculation by R. Sen Gupta
9. Principle of weaying by R. Marks and ATC Robinson
10.Watson's Advance Textile Design by Z.J. Grdsicki

FASHION DESIGN AND ILLUSTRATION-1

| Course Code | TD 5004 |
| :--- | :--- |
| Course Title | Fashion Design And Illustration-1 |
| Number of Credits | $1($ L-1, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

1. To provide knowledge of various fashion trends and textiles.
2. To inculcate the interest and to develop a sense of appreciation and creative expression in selection of ready-made clothes.
3. To enable the students to develop interest in research for various projects and develop appropriate skills in designing dresses.
4. To enable students to acquire basic knowledge about textiles necessary to select better fabrics for Apparel and designing clothes.

## COURSE OUTCOMES-

1. Students have a command of drawing the human figure and environment, from imagination and observation.
2. Students are able to execute drawings and finished illustrations that demonstrate expertise in dynamic composition, spatial relationship, and design.
3. Develop and/or augment a personal voice in the students' art through the exploration of a variety of visual vocabularies to express a unique perspective.
4. Student demonstrates a unique voice, vision and style to execute finished illustrations.

## COURSE CONTENTS-

1. Introduetion to fashion Illustration and brief history of fashion illustration
2. Fashion Figure,
3. Study of various proportions,
2.2 The balance line in drawing figures, gestures and movements.
2.38 head, 10 head, 12 head figures,
2.4 The fashion face, arms, legs, Hands and feet.
2.5 Illustrating male figure and children,
2.6 Figure analysis,
2.7 Body types,
2.8 Designing for diverse body types and ages
4. Fashion terminologies - fashion, fad, cycle, style, classics, boutique, trend, haute couture, designer, prêt a porter, silhouette, taste, Fashion icon, fashion follower, muse

## REFERENCES-

1. Design Essentials: 100 Principles of Fashion Design.
2. Fashion Design: Process, Innovation and Practice ( $2^{\text {nd }}$ Edition)
3. 9 Heads: A Guide to Drawing Fashion ( $3^{\text {rd }}$ Edition)
4. Fashion Sketchbook ( $6^{\text {th }}$ Edition)
5. Fashion Design Course: Principles, Practice and Techniques: The Practical Guide for Aspiring Fashion Designers.
6. Allen and Seaman, "Fashion drawing- The Basic Principles", B. T Batsford, London, 1994
7. Drake andIreland, Patrick John, "Fashion Design Drawing and Presentation", B. T, Batsford, London, 1996
8. Nicholas, "Fashion illustrations", Thames and Hudson. London, J 994
9. Seamn, Julian, "Professional Fashion Illustration". B. T. Batsford, London, 1995
*****

## GARMENT TECHNOLOGY

| Course Code | TD 5005 |
| :--- | :--- |
| Course Title | Garment Technology |
| Number of Credits | $3($ L-3, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Some of the diploma holder in textile design may also find placement in the garment house. the garment construction includes various types of stitches, seams, patterns, spreadíng process, cutting process, fusing, pressing and packaging. The basic concepts of garment manufacturing are included in this subject.

## COURSE OUTCOMES-

- To understand the basic skill of pattern making.
- To understand the basic skill of cutting.
- To understand the basic or fabric spreading process
- To stitch different stitch and seams on sewing machine.
- To finish edges with hand and machine
- To understand basic of fusing , pressing and packing
- To understand the basic concept of fabric costing


## CONTENT

1. Types of fabric used for garment
1.1 Fabric characteristics for garment manufacturing
1.2 Fabric selection and sourcing for garment making
1.3 Fabric inspection system
2. Types of stitches
3. Types of seam 3
4. Edge finishes 3
5. Pattern making 5
6. Body measurement and body anatomy
5.2 Types of pattern
5.3 Pattern making tools
7. Fabric spreading
6.1. Marker planning, marker types and methods of marker planning
6.2. Types of spreading
6.3. Objectives of spreading and methods
8. Cutting
7.1. Object of cutting
7.2. Methods of cutting and tools of cutting
7.3 Types of cutting machine
9. Fusing, pressing and packing ..... 58.1. Purpose of fusing and fusing process8.2. Purpose of pressing, tools of pressing and classification of pressing
8.3. Types of package forms, packing and packing material
10. Garment merchandising4
9.1. Types of garment merchandising
9.2. General merchandising process
11. Garment costing3
10.1. Methods of costing
10.2. Stages of costing
10.3. Factor affecting fabric cost

## REFERENCES

1. Apparel manufacturing technology by T.Karthik, P.Ganesan, D Gopalakrishnan
2. Garment manufacturing technology by Rajkishorenayak and Rajiv Padhye
3. Garment manufacturing by PrasantaSarkar
4. Pattern cutting making up by Martin M Shoben and Janet $P$ pard
5. Cutting and Sewing theory byGaytriVerma and Kapil Dey

COMPUTER AIDED TEXTILE DESIGN - III LAB

| Course Code | TD-5006 |
| :--- | :--- |
| Course Title | Computer Aided Textile Design - III Lab |
| No. Of Credits | 1.5 (L-0, T-0, P-3) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Any part of the design process that can utilize the computer as a tool fits under the CAD Umbrella. CATD has brought about a revolution in the textile industry. The tume consuming and cumbersome process of textile designing has made easier by CAD.

The subject helps the students to use the CAD/CAM system for(Design presentation and production purposes. Software applications like Corel draw together with Photoshop helps the students to utilize their creativity into innovative designs.

## COURSE OUTCOMES-

Throughout this course, some learning should be acquired by the students that meet the objective of this course -

- The students should be able to defíne the designing tool, objects and the software property according to market demand.
- The students should be able to analyze and justified the different menus of design tools and able to connect with textile design.
- The students should be able to design and draw motifs with the help of softwareand tools.


## COURSE CONTENTS

1. Design Motifs and Coordinates for seamless designs by taking any 10 themes of "Printed fabrig design". (Make 20 layouts 2 for each theme).

Softyare to be used Corel draw or Photoshop.
2. Design-Draft and Peg plan for different weaves-
2. 1 Plain weave
2.2.Twill weave
2.3.Stain weave
2.4.Derivation of plain weave

Note:-

1. Execute these weaves in form of Print design.
2. Color separation for different fabric.
3. Formation of New Design in form of different given weave.

## REFERENCE BOOKS

1. Corel draw X 8 ,the official guide.
2. Corel draw X6 - Official guide (By Gary David Button)
3. ''Bring it home will Corel draw'' (By Roger Won bolt)
4. Adobe Photoshop
(Classroom in book the official training workbook from Adobe -
AndrewfaultierConradChaves)
5. Color match
6. Global Ten CAD Professional
7. Tex Style (Printing design)

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PRINTING TECHNOLOGY- I LAB

| Course Code | TD 5007 |
| :--- | :--- |
| Course Title | Printing Technology I-Lab |
| Number of Credits | $1.5(\mathrm{~L}-0, \mathrm{~T}-0, \mathrm{P}-3)$ |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Textile printing is the process of applying colour to fabric in definite patterns or designs which plays vital role in the decoration of fabric. All design comes on the fabric by means of printing therefore textile designer have to know the styles and methods of printing to apply his design to decorate the fabric.

## COURSE OUTCOMES-

After successful completion of this subject, the learner will be ableto

- Role of different printing ingredient in printing paste
- Various printing style used in fabric printing
- Different methods of fabric printing
- Printing on different quality of fabric with different dyes


## PRACTICALS

1. Students shall prepare a file containing different samples of block printing with different dyes and pigments.
2. Printing of the following articles with Block printing method-
2.1. Cushion cover/ sofa backs
2.2. Table Cover/ dress material

## REFERENCE BOOKS:

1. Textile Science
2. Chemistry of Textile Auxiliaries
3. Cotton Riece Dyeing
4. Chemistry of Dyes and Principle of Dyeing
5. Technology of Dyeing
6. Technology of Printing
7. The Alternative Printing Handbook.

8 Block Printing on Textiles
9 Study of Contemporary Textiles
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10 Thomas and Hudson manual of Textile printing.
11 Textile printing.
12 Textile printing.
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Vilenski
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## Clarke.

Needles.
J.T. Marsh.

Bell and Hyman
Gooch.
R.P.Chakraverty

PRINTED FABRIC DESIGN -III LAB

| Course Code | TD 5008 |
| :--- | :--- |
| Course Title | Printed Fabric Design -III Lab |
| Number of Credits | 2.5 (L-0, T-0, P-5) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

The last and ultimate aim of Textile Design course is to give best designers to the world. This subject is essence of all. As a designer of textile, a person has to keep a lot of factors in mind like theme, weather, time, fabric countries use, fashion trends, customer's choice etc. and has to get perfect ideas by keeping the above mentioned factors in mind. Students may start their own design studio or can get practical image of their designs by selling them to different printing mills and units.

## COURSE OUTCOMES-

- It help student to create design that are unique, effective and memorable.
- It's an internal ability to come up with new and inventive ways to fulfill a need.
- It is a process of skill development, exposed tonew design avenues.
- It helps students to learn customize designing and build their own business.


## PRACTICALS

## 1. Practices :

1.1 Make 2-2 repeat units on following bases and placements
1.1.1 Unit Repeating Design
1.1.2 The drop device:
1.1.2.1 Half ( $1 / 2$ ) drop
1.1.2.2 One third ( $1 / 3$ ) drop
1.1.2.3 One quarter ( $1 / 4$ ) drop
1.1.3 The diamond.
1.1.4 The ozee (open ozee, interfacing ozee closed open ozee)
1.1.5 The rectangle
1.1.6 The sateen basis method

## 2 Instructions :

2.1 Every theme of the design must have at least three colour schemes for the final selected design in one repeat unit.
2.2 Every theme of the design should be in practical No.l modern style and it should be in traditional style

## 3 Practice Exercise:

3.1 Theme: Indian traditional design

For: Dress material
Fabric: Cotton
Colour scheme: your own choice
Method: block printing
3.2 Theme: anything from nature 15
For: upholstery
Fabric: Tapestry cloth
Color scheme: Minimum four colour
Method: screen printing
3.3 Theme: Leaves 11

For: Office curtain
Fabric: satin cotten
Color scheme: Minimum five colour
Method: screen printing
3.4 Theme: Geometrical pattern 12

For: Bed cover
Fabric: Plain cotton sheet
Color scheme: Minimum three colour
Method: block printing
3.5 Theme: Musical instrument

For: Bed cover
Fabric: Long cloth
Color scheme: Your own choice
Method: block printing
Note: Size of themes from 3.1 to 3.5 should not be less than 09 "x09". REFERENCE BOOKS :

1. Master pieces of Indian textile - Rustom J. Metha
2. Textile of india -
3. Traditional Indian textile-
4. Paradise as a garden -

B.A Shenai

5. Optical and Geometrical Patterns and Designs -Syrose
6. Silver Study of Design -

Mark Truner
7. The Family Encyclopedia of Animal Life.
8. Birds Family of the World -

Harrison Abrown
9. Focus on nature faher


FREE HAND DRAWING \& PAINTING- I LAB

| Course Code | TD 5009 |
| :--- | :--- |
| Course Title | Free Hand Drawing \& Painting- ILab |
| Number of Credits | 1.5 (L-0, T-0, P-3) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Free Hand Painting 1s a subject 1or which students require full confidence in their hands. After learning almost all type of motifs and figure, students are how capable to go hand painting as they have learnt all the forms naturally as well as creatiyely. After studying the basic forms and shapes, natural and geometrical in IInd year. We move to the human figures and animated forms in IInd year. The study of human figures is essential as parts of designing likewise animated figures are becoming more impoftant now days.

## COURSE OUTCOMES-

Throughout freehand drawing course, some learning outcomes should be acquired by the students that meet the objectives of this course:

- The students shout be able to observe the shapes and objects, and record the scale and proportion and dimension accurately.
- The students shout be able to analyze and measure the relative proportions of the shapes and objects in a composition.
- They should be able to analyze the location of the lines in relation to each other in the model, and analyze the angles of the vanishing points.
- The students shout be able to draw sketch quickly.
- The students shout be able to present their drawing by hatching techniques, besides, show shadow, shade and texture of objects.
- Chose the suitable color plan for the project.
- Lear the basics of mixing the colors.
- Illustrating shades and shadows in the drawing.


## CONTENTS

1 Six greeting cards of different theme. 13
2 A set of dining table mat in traditional pattern. 13
3 Saree painting in floral pattern. 13

## REFERENCE BOOKS

1 Hand Woven Fabrics of India
2 Indian Crafts
3 Traditional Indian Textiles
4 Masterpieces of Indian Textiles
5 Brocades of Ahmedabad

Dhamija/ Jain
Gillow John. Rustam J. Metha Jhala, Uma De.

6 South Indian Traditions of Kalamkari
7 Costumes and Textiles of India
8 Miniature Painted Techniques
9 Kashmiri and its Shawls
10 Indian Textiles

Lolikavaradrajew
Brij Bhushan
Sumo Hendra
Ananymous
Irwin John.

FASHION DESIGNAND ILLUSTRATION- I LAB

| Course Code | TD-5010 |
| :--- | :--- |
| Course Title | Fashion Design And Illustration -I Lab |
| No. Of Credits | 2 (L-, T-0, P-4) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

1. To provide knowledge of various fashion trends and textiles.
2. To inculcate the interest and to develop a sense of appreciation and creative expression in selection of ready-made clothes.
3. To enable the students to develop interest in research for various projects and develop appropriate skills in designing dresses.
4. To enable students to acquire basic knowledge about textiles necessary to select better fabrics for Apparel and designing clothes.

## COURSE OUTCOMES-

1. Students have a command of drawing the human figure and environment, from imagination and observation.
2. Students are able to execute drawings and finished illustrations that demonstrate expertise in dynamic composition, spatial relationship, and design.
3. Develop and/or augment a personal voice in the students' art through the exploration of a variety of visual vocabularies to express a unique perspective.
4. Student demonstrates a unique voice, vision and style to execute finished illustrations.

## COURSE CONTENTS-

1. Line Sketches in Pencil and Ink:161.1 Boys and Girls
1.2 Ladies
1.3 Gents2. Brief idea about Drawing Tools and Materials8
2. Sketches of: ..... 83.1 Flowers and Twigs3.2 Trees and Foliage
3. Sketches Related to Boys / Girls/ Ladies / Gents: ..... 20
4.1 Necklines
4.2 Collars
4.3 Sleeves
4.4 Yokes
4.5 Bows and Ties
4.6 Caps and Hats
4.7 Pockets
4.8 Belts

## REFERECE BOOKS

1. The Art of Costume Design Marilyn Sotto
2. How'to Draw and Paint Fashions Walter T. Faster
3. Children's Clothes Conran Actopus
4. Kiddys Fashion Wongs Wary Press
5. Men's Hi Fashion Poineer Books Co.
6. Women's Hi Fashion Poineer Books Co.
7. Mccall's Vogue and Simplicity (Monthly Maganizes)
8. Kiddy Vol - 1 to 25

# GOVERNMENT OF RAJASTHAN <br> BOARD OF TECHNICAL EDUCATION RAJASTHAN JODHPUR 

## SEMESTER SCHEME-2020-21



PROFESSIONAL MANAGEMENT\& ENTREPRENEURSHIP-II

| Course Code | TD 6001 |
| :--- | :--- |
| Course Title | Professional Management \& Entrepreneurship-II <br> (Common to all branches of Non Engineering) |
| Number of Credits | 3 (L-3, T-0, P-0) |
| Prerequisites | None |

## Course objective:

To achieve the targets and goals in an organization, it is essential to have the knowledge of various facets of businesses and management. On the other hand, economic development of a nation much depends upon entrepreneurship development. With large pool of technically educated youth and open market system, a big number of youth can turn to be business ventures, generating (employment opportunities and leading to better utilization of resources.

This course not only gives an insight into the basic concepts, principles and processes of management and business organizations but also understanding of different aspects of entrepreneurship development to young entrants.

## Course Outcomes

On completion of the course student will be able to:

1. get familiarize with basics of business organization and management
2. acquire the essential knowledge required for becoming an entrepreneur.

## COURSE CONTENTS

## 1. Financial Management

1.1 Sources of Finance
1.2 Cash and Credit
1.3 Cheque and Draft
1.4 Brief idea of cost accounting

## 2. Tax and Insurance

2.1 Brief idea about direct and indirect taxes
2.2 Industrial insurance
3. Quality Management
3.1 Concept of quality
3.2 Quality Assurance
3.3 Online \& offline quality control
3.4 Factors responsible for deviation
3.5 ISO 9000 model
3.6 Total quality management.
4. Sales and Marketing Management
4.1 Concept of Marketing
4.2 Marketing Mix (4P)
4.3 Advertising and Sales Promotion
4.3 Sales Vs Marketing
4.4 Functions of marketing department
4.5 After sales services
5. Setting up an SSI
5.1 Steps in setting up an SSI

### 5.2 Pre market survey

5.3 Product Identification
5.4 Site selection \& land allotment
5.5 Procurement of raw materials
5.6 Establishment of Machinery

## 6. Project Report

6.1 Procedure of preparing a project report
6.2 Format of a project report
6.3 Analysis of sample project reports

Important: An entrepreneurship camp can be arranged by the institutions stretched over 3-4 days with the help of agencies such as RIICO, DST, RajCON, DOI, banks etc. However no question should be asked in examination from this event.

## REFERENCES:

1. Industrial Engineering and Management, O P Khanna
2. Handbook of Small Scale Industry by P M Bhandari
3. Entrepreneurial Development, S S Khanka, S Chand
4. Total Quality Management, M P Poonia and S © Sharma
5. Industrial Engineering and Management, Sharma and Banga
6. Entrepreneurial Development Dr S S Khanka, SChand Publishing
7. Management and Entrepreneurship, VK Sharma and O P Harkut, Scientific Publishers
8. Entrepreneurship Development Handbook, O P Harkut and J P Vaishnav, Scientific Publishers
9. Entrepreneurship Development And Management, J S Narang, Krishan Lal,V Dalal,

Dhanpat RaiNote: Students are advised to supplement their readings on latest development in entrepreneurship through internet and open courseware.

PRINTING TECHNOLOGY II

| Course Code | TD 6002 |
| :--- | :--- |
| Course Title | PRINTING TECHNOLOGY II |
| Number of Credits | 3 (L-3, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Textile printing is the process of applying colour to fabric in definite patterns or designs which plays vital role in the decoration of fabric. All design comes on the fabric by means of printing therefore textile designer have to know the styles and methods of printing to apply his design to decorate the fabric.

## COURSE OUTCOMES-

After successful completion of this subject, the learner will be able to:

- Understood the various aspects of screen printings
- Different printing methods used in fabric printing
- Printing on different quality of fabric with different dyes
- After treatment of fabric printing and their effects


## COURSE CONTENTS

## 1. Screen Printing

1.1. Equipment and materials
1.2. Types of screen
1.3. Methods of screen making
1.4. Processes of hand, Flat bed and Rotary screen printing
1.5. Advantages and disaďvantages of screen printing
1.6. Faults in screen printing process
2. Roller printing method 6
3. Transfer printing method 6
4. Printing of Synthetic fibre and its blend with different dyes 6
5. AfterTreatments of printed fabrics. 6

## REFERENCE BOOKS:

1. Textile Science
2. Chemistry of Textile Auxiliaries
3. Cotton Piece Dyeing
4. Chemistry of Dyes and Principle of Dyeing
5. Technology of Dyeing
6. Technology of Printing
7. The Alternative Printing Handbook.

Vilenski
Shenai

8 Block Printing on Textiles
9 Study of Contemporary Textiles
Gokhale and Shah Shenai

Shenai
Shenai
Chris TreweekandZeitly
Crikson
Bijoy Chandra

## Craft of India Block Ptg.

10 Thomas and Hudson manual of Textile printing.
11 Textile printing.
12 Textile printing.
13 Dictionary of Dyes and Dyeing
14 Dyeing and Chemical Technology of Textile Fibres.
15 An Introduction of Textile Printing.
16 Handbook of Textile Fibres, Dyes and Finishes.
17 Textile Science
18 A Dictionary of Dyes and Dyeing
19 A Dictionary of Dyes and Dyeing
20 A Glimpse on Chemical Technology

Mohanti\&Jagdish Prasad
Joyce storey
Tim mara
K.G. Ponting

TertmanGrittin
Clarke.
Needles.
J.T. Marsh.

Bell and Hyman
Gooch.
R.P.Chakraverty

TEXTILE TESTING

| Course Code | TD 6003 |
| :--- | :--- |
| Course Title | Textile Testing |
| Number of Credits | 3 (L-3, T-0, P-0) |
| Prerequisites | None |
| Course Category | Textile Design |

## COURSE LEARNING OBJECTIVES

The diploma holders in textile design have to ensure quality at all levels. The skill in testing of materials and textiles of various stages of production and finishing are essential to be developed in the students. To train the students in assessment of performance characteristics of various textile material i.e. fiber, yarn and fabrics the subject of textile testing has been included in curriculum.

## COURSE OUTCOMES-

Upon completion of the subject, student will be able to:

- Identify, select and access (source) the mostappropriate international standard tests and test methods to access the serviceability of specific textile product and its enduse.
- Conduct (apply) the standard quality control tests appropriate to textile product and interpret and evaluate the results in terms of relevant national and international performance requirements, standards and specifications for different textile products.
- Apply critical and creative thinking for identifying, analyzing and solving quality and general technical problem related to textile products.
- Competently and professionally present quality assessment information and results and solutions to quality related problems and ways of improving quality.


## CONTENTS

1.Sampling Need of textile testing
1.2 Standard atmospheric condition

1. 3 Sampling: Aim of sampling
1.4 Types of sampling: Random sampling, Bias sampling, Numerical sampling,
2. Fiber Testing
2.1Fiber length measurement: importance, fiber parameter
2.2 Fiber fineness measurement and its importance
2.3 Fiber maturity and its importance
2.4Fiber moisture regain
3. Yarn count, Twist and Irregularity
3.1 Yarn numbering system
3.2 Yarn twist testing: types of twist, effect of twist on fabric property, different twist testing methods
3.3 Testing of evenness of yarn and its importance
3.4 CSP
4. Fabric Testing
4.1 Quality parameters of fabric
4.2 Fabric thickness testing
4.3 Pilling of fabrics and its responsible factors
4.4 Fabric abrasion resistance
4.5 Parameters affecting handle of fabric
4.6 Crease resistance and crease recovery
4.7 Flame resistance
4.8 Drape
4.9 Tensile property

## REFERENCES

1. Principles of Textile Testing by JE Booth
2. Textile Testing by P Anagappan, R Gopalakrishnnan
3. Hand book of Textile Testing and Quality Control by Grover and Hamby

FASHION DESIGN AND ILLUSTRATION-II

| Course Code | TD 6004 |
| :--- | :--- |
| Course Title | Fashion Design And Illustration-II |
| Number of Credits | 1 (L-1, T-0, P-0) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

1. To provide knowledge of various fashion trends and textiles.
2. To inculcate the interest and to develop a sense of appreciation and creative expresssion in selection of ready-made clothes.
3. To enable the students to develop interest in research for various projects and develop appropriate skills in designing dresses.
4. To enable students to acquire basic knowledge about textiles necessary to select better fabrics for Apparel and designing clothes.

## COURSE OUTCOMES-

1. Students have a command of drawing the human figure and environment, from imagination and observation.
2. Students are able to execute drawings and finishedillustrations that demonstrate expertise in dynamic composition, spatial relationship, and design.
3. Develop and/or augment a personal voice in the students' art through the exploration of a variety of visual vocabularies to express a unique perspective.
4. Student demonstrates a unique voice, vision and style to execute finished illustrations.

COURSE CONTENTS-

1. Origins of fashion
1.1 Clothing as modesty
1.2 Fashion as status symbol
1.3The major fashion centers and Fashion theories
2. Garment Features
2.1 Types of silhouettes, collars
2.2 Yoke variations, pockets
2.3 Cuffs, sleeves Trousers
3. Fashion Psychology

1 3.1 Role of clothing in physical, social, psychological
3.2 Cultural scenario, Human behavior and clothing

Clothing and gender differentiation
4. Fashion designers: both Indian and International

## REFERENCE-

1.Design Essentials: 100 Principles of Fashion Design.
2. Fashion Design: Process, Innovation and Practice ( $2^{\text {nd }}$ Edition)
3. 9 Heads: A Guide to Drawing Fashion ( $3^{\text {rd }}$ Edition)
4. Fashion Sketchbook ( $6^{\text {th }}$ Edition)
5. Fashion Design Course: Principles, Practice and Techniques: The Practical Guide for Aspiring Fashion Designers.
6. Allen and Seaman, "Fashion drawing- The Basic Principles", B. T Batsford, London, 1994
7. Drake andIreland, Patrick John, "Fashion Design Drawing and Presentation", B. T, Batsford, London, 1996
8. Nicholas, "Fashion illustrations", Thames and Hudson. London, J 994
9. Seamn, Julian, "Professional Fashion Illustration". B. T. Batsford, London, 1995

TEXTILE TESTING LAB

| Course Code | TD 6005 |
| :--- | :--- |
| Course Title | Textile Testing lab |
| Number of Credits | $0.5(\mathrm{~L}-0, \mathrm{~T}-0, \mathrm{P}-1)$ |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

To impart the knowledge about the physical properties of textile and their testing procedures and to develop and understanding of the principals involved in testing of performance ánd colour fastness properties of textile fabrics.

## COURSE OUTCOMES-

Student will be able to-

- Apply the knowledge about various procedures at yarn stage and related to fabric performance properties.
- Relate the principles of fabric testing procedures with the functional, performance, aesthetic and comfort properties of textiles and fabrics.


## PRACTICALS

1. To identify the yarn count of given sample.1
2. To measure the twist and twist contraction in given yarn sample. 2
3. To identify the crimp\% of given fabric sample. 1
4. To measure the crease recovery of given fabric sample. 1
5. To identify the moisture regain ingiven fabric sample. 2
6. To measure the thickness of given fabric sample 1
7. To measure the tearing strength of given fabric sample. 1
8. To measure the drape of given fabric sample. 1
9. To perform the pilling test on given fabric sample. 2
10. To measure the abrasion resistance of given fabric. 1

## REFERENCES

4. Principles of Textile Testing by JE Booth
5. Textile Testing by P Anagappan, R Gopalakrishnnan
6. Hand book of Textile Testing and Quality Control by Grover and Hamby

COMPUTER AIDED TEXTILE DESIGN - IV LAB

| Course Code | TD-6006 |
| :--- | :--- |
| Course Title | COMPUTER AIDED TEXTILE DESIGN - IV LAB |
| No. Of Credits | $1.5(\mathrm{~L}-0$, T-0, P-3) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

CAD has brought a revolution in the textile and textile industry the time consuming and cumbersome process of textile designing has been made easier by CAD by using CAD software technology textile designer can easily create different types of clothing design within a very short period of time.

Students learn graphical representation so accurately generated that they can nearly view the actual product on the screen. Students can shorter the development time of a product earlier, it can be introduced in the market and the product may have an extended life span if built-in quality of it is up to the mark.

## COURSE OUTCOMES-

Students will be able to -

- Apply the knowledge about various CATD procedures at design stage and relate it to fabric performance and its printing design.
- Relate the principles of printing design with functional performance, aesthetic and comfort software.
- Understand key techniques of different CATD software.
- Gain knowledge to being the toofs of different textile software.
- Draw conditions and interpretationsfrom the analysis of data using various software.


## COURSE CONTENTS

1. Mapping for home furnishing collection as various textile design articles.

Note:- Design 5 Homefurnishing coordinates its design composition

- Use of Digitizers compulsory.
- Sketch design is compulsory.
- Appropriate use of software.

2. Design complete folio by using appropriate textile software.
3. Stripes and Checks design formation with the help of proper Design, Draft and Peg plan *Weave coordination should be properly elaborated [Dobby Jacquard software]
4. Dèsigh various Designs for 10 layouts of Saris.

- Traditional Sari themes to be taken.
- Digitizer to be used.

5. Understand access to internet, send or receive emails, searching and managing data. 6

## REFERENCE

1. Tex CAD Software
2. Dobby Jacquard Software
3. Illustrator
4. Photoshop
5. Corel Draw
6. Indesign

PRINTING TECHNOLOGY II LAB

| Course Code | TD 6007 |
| :--- | :--- |
| Course Title | PRINTING TECHNOLOGY II LAB |
| Number of Credits | 1.5 (L-0, T-0, P-3) |
| Prerequisites | PRINTING TECHNOLOGY I LAB |

## COURSE LEARNING OBJECTIVES

Textile printing is the process of applying colour to fabric in definite patterns or designs which plays vital role in the decoration of fabric. All design comes on the fabric by means of printing therefore textile designer have to know the styles and methods of printing to apply his design to decorate the fabric.

## COURSE OUTCOMES-

After successful completion of this subject, the learner will be able to:

- Understood the various aspects of screen printings
- Different printing methods used in fabric printing
- Printing on different quality of fabric with different dyes
- After treatment of fabric printing and their effects


## PRACTICALS

1. Single colour screen printing on silk scarf with acid dye. 13
2. Double colour screen printing on cots wool fabric with pigments 13
3. Triple colour screen printing on salwarsuit with rapid and indigosol dyes 13

## REFERENCE BOOKS:

1. Textile Science
2. Chemistry of Textile Auxiliaries
3. Cotton Piece Dyeing
4. Chemistry of Dyes and Principle of Dyeing
5. Technology of Dyeing
6. Technology of Printing
7. The Alternative Printing Handbook.

8 Block Printing on Textiles
9 Study of Contemporary Textiles Craft of India Block Ptg.
10 Thomas and Hudson manual of Textile printing.
11 Textile printing.
12 Textile printing.
13 Dictionary of Dyes and Dyeing
14 Dyeing and Chemical Technology of Textile Fibres.
15 An Introduction of Textile Printing.

## Vilenski

Shenai
Gokhale and Shah
Shenai
Shenai
Shenai
Chris TreweekandZeitly
Crikson
Bijoy Chandra
Mohanti\&Jagdish Prasad

Joyce storey
Tim mara
K.G. Ponting

TertmanGrittin

Clarke.

16 Handbook of Textile Fibres, Dyes and Finishes.
17 Textile Science
18 A Dictionary of Dyes and Dyeing
19 A Dictionary of Dyes and Dyeing
20 A Glimpse on Chemical Technology

Needles.

## J.T. Marsh.

Bell and Hyman
Gooch.
R.P.Chakraverty

PRINTED FABRIC DESIGN IV LAB

| Course Code | TD 6008 |
| :--- | :--- |
| Course Title | PRINTED FABRIC DESIGN IV LAB |
| Number of Credits | 2.5 (L-0, T-0, P-5) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

The last and ultimate aim of Textile Design course is to give best designers to the world. This subject is essence of all. As a designer of textile, a person has to keep a lot of factors in mind like theme, weather, time, fabric countries, uses, fashion trends, customer's choice etc. and has to get perfect ideas by keeping the above mentioned factors in mind. Students may start their own design studio or can get practical image of their designs by selling them to different printing mills and units.

## COURSE OUTCOMES-

- It help student to create design that are unique, effective and memorable.
- It's an internal ability to come up with new and inventive ways to fulfill a need.
- It is a process of skill development, exposed tonew design avenues.
- It helps students to learn customize designing and build their own business.


## PRACTICALS



## 1. Practices:

1.1. Make 2-2 repeat units on following bases and placements
1.1.1 Unit Repeating Design
1.1.2 The drop device:
1.1.2.1 Half (1/2) drop
1.1.2.2 One third ( $1 / 3$ ) drop
1.1.2.3 One quarter $(1 / 4)$ drop
1.1.2.4 Full drop
1.1.3 The diamond.
1.1.4 The ozee (open ozee, interlacing ozee closed open ozee)
1.1.5 The rectangle
1.1.6 The sateen basis method

## 2 Instructions:

2.1 Every theme of the design must have at least three colour schemes for the final selected design in one repeat unit.
2.2 Every theme of the design should be in practical No. 1 traditional style and it should be in modern styles.
3. Practice Exercise:
3.1 Theme: International design

For: Dress material
Fabric: Blended fabric
Colour scheme: maximum 5 colour
Method: screen printing
3.2 Theme: Abstract or modern pattern ..... 16
For: sareeFabric: synthetic fabricColor scheme: Maximum seven colourMethod: screen printing
3.3 Theme: decorative human figures ..... 16
For: SareeFabric: SilkColor scheme: Minimum three colourMethod: block printing
3.4 Theme: Building and temples or monuments ..... 15
For: Office curtain
Fabric: Plain cotton sheet
Color scheme: Minimum Five colour
Method: Screen printing

Note : Size of themes 3.9 \& 3.10 should not be less than 18 "x45".

## REFERENCE BOOKS :

10. World textiles
11. Modern Japanese Prints
12. Russian Textile Design
13. Ancient Egyptian
14. Easy Way to do Chinese painting
15. Silver Study of Design
16. How to draw human figures
17. Abstract and floral design
18. Abstract art pattern and design

John hekks
Frances Blackarmore
Arove Art Publishes Lemirngrad
Design Wilson
Chin Chow Chain
Mark Truner
Fester series
E.A Seguy
M.P.

FREE HAND DRAWING \& PAINTING II LAB

| Course Code | TD 6009 |
| :--- | :--- |
| Course Title | FREE HAND DRAWING \& PAINTING II LAB |
| Number of Credits | $1.5($ L-0, T-0, P-3) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

Free Hand Painting 1s a subject 1or which students require full confidence in their hands. After learning almost all type of motifs and figure, students are how capable to go hand painting as they have learnt all the forms naturally as well as creatively. After studying the basic forms and shapes, natural and geometrical in IInd year. We move to the human figures and animated forms in IIIrd year. The study of human figures is essential as a part of designing likewise animated figures is becoming more important now days.

## COURSE OUTCOMES-

Throughout freehand drawing course, some learning outcomes should be acquired by the students that meet the objectives of this course:

- The students should be able to observe the shapes and objects, and record the scale and proportion and dimension accurately.
- The students should be able to analyze and measure the relative proportions of the shapes and objects in a composition.
- They should be able to analyze the location of the lines in relation to each other in the model, and analyze the angles of the vanishing points.
- The students should be able to draw sketch quickly.
- The students should be able to present their drawing by hatching techniques, besides, show shadow, shade and texture of objects.
- Choose the suitablecolor plan for the project.
- Clear the basics of mixing the colors.
- Illustrating shades and shadows in the drawing.


## COURSE CONTENTS

$$
\text { 1. Pot painting in modern pattern. } 13
$$

2. Bed cover in floral pattern. ..... 13
3. Ladies suit/kurti in geometrical \& floral pattern. ..... 13

## REFERENCE BOOKS

1 Hand Woven Fabrics of India
2 Indian Crafts
3 Traditional Indian Textiles
4 Masterpieces of Indian Textiles
5 Brocades of Ahmedabad

Dhamija/ Jain
D.N. Saraf

Gillow John.
Rustam J. Metha
Jhala, Uma De.

6 South Indian Traditions of Kalamkari
7 Costumes and Textiles of India
8 Miniature Painted Techniques
9 Kashmiri and its Shawls
10 Indian Textiles

Lolikavaradrajew
BrijBhushan
Sumo Hendra
Ananymous
Irwin John.
*****

## FASHION DESIGN AND ILLUSTRATION II LAB

| Course Code | TD-6010 |
| :--- | :--- |
| Course Title | FASHION DESIGN AND ILLUSTRATION II LAB |
| No. Of Credits | 1 (L-0, T-0, P-2) |
| Prerequisites | None |

## COURSE LEARNING OBJECTIVES

1. To provide knowledge of various fashion trends and textiles.
2. To inculcate the interest and to develop a sense of appreciation and creative expression in selection of ready-made clothes.
3. To enable the students to develop interest in research for various projects and develop appropriate skills in designing dresses.
4. To enable students to acquire basic knowledge about textiles necessary to select better fabrics for Apparel and designing clothes.

## COURSE OUTCOMES-

1. Students have a command of drawing the human figure and environment, from imagination and observation.
2. Students are able to execute drawings and finished illustrations that demonstrate expertise in dynamic composition, spatial relationship, and design.
3. Develop and/or augment a personal voice in the students' art through the exploration of a variety of visual vocabularies to express a unique perspective.
4. Student demonstrates a uníque voice, vision and style to execute finished illustrations.

## CONTENTS

1. Sketches of Boys / Girls/Ladies / Gents Garments in Pencil, Wax, Crayon, Ink Water and Poster Colours.
2. Illustration of different types of Fabrics:-
3.1 Plain, Printed, Checks, Dots, Striped and Textured in Suitable Medium.
3. Computer Aided Dress Designing and Application of Fashion of Different Poses Using Illustrator, Photoshop or other Related Software.

## REFERENCES

1. How to Draw \& Paint Fashion Walton T. Foster
2. Women's Hi Fashion Pioneer Books Company
3. Hi Fashion Hema Malini
4. Fashion Design Illustration Women Patric John Ireland
5. Advance Fashion Sketch Book Vol. I Bina Abling
6. Advance Fashion Sketch Book Vol. II Bina Abling
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