

Study Scheme & Syllabus of Bachelor of Science in Textile Design (B.Sc. Textile Design)

Batch 2020 onwards



By

Board of Study Fashion Technology

Department of Academics

IK Gujral Punjab Technical University

IK Gujral Punjab Technical University
B.Sc. Textile Design, Batch 2020 Onwards

Bachelors of Science in Textile Design (B.Sc. TD):

It is a Under Graduate (UG) Programme of 3 years duration (6 semesters)

Eligibility for Admission:

All those candidates who have passed the 10+2 or its equivalent examination in any stream conducted by a recognized Board / University / Council.

OR

General Certificate Education (GCE) Examination (London/ Cambridge/ Sri-Lanka) at the Advanced (A) level.

OR

A pass grade in the Senior Secondary School Examination conducted by the National Open School with a minimum of five subjects

OR

Candidates who have passed 3 or 4 years diploma recognised by AICTE or a State Board of Technical Education.

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Courses & Examination Scheme:

First Semester

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External		
BSTD101-20	Core Theory	Elements of Textiles	2	0	0	20	30	50	2
BSTD102-20	Core Practical/Laboratory	Introduction to Weaving	0	0	6	60	40	100	3
BSTD103-20	Core Practical/Laboratory	Elements of Design	0	0	6	60	40	100	3
BSTD104-20	Core Practical/Laboratory	Basic Drawing	0	0	3	60	40	100	2
BSTD105-20	Core Practical/Laboratory	Basics of Computer	0	0	3	60	40	100	2
BSTD106-20	Core Practical/Laboratory	Yarn Craft	0	0	3	30	20	50	2
BSTD107-20	Core Practical/Laboratory	Basic Sewing Skills	0	0	3	60	40	100	2
BSTD108-20	Core Practical/Laboratory	Traditional Indian Embroideries	0	0	3	60	40	100	2
BTHU103-18	Ability Enhancement Compulsory Course (AECC)-I	English	1	0	0	40	60	100	1
BTHU104-18	Ability Enhancement Compulsory Course (AECC)	English Practical/Laboratory	0	0	2	60	40	100	1
HVPE101-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules	3	0	0	40	60	50	3
HVPE102-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules (Lab/ Seminar)	0	0	1	25	--**	25	1
BTMD102-18		Mentoring and Professional Development	0	0	1	25	--**	25	1
	TOTAL		06	0	31	600	450	1000	25

*A course can either have four Hrs Lecture or Three Hrs Lecture + One Hrs Tutorial as per requirement

**The Human Values, De-addiction and Traffic Rules (Lab/ Seminar) and Mentoring and Professional Development course will have internal evaluation only.

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Second Semester

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External		
BSTD201-20	Core Theory	Introduction to Chemical Processing	2	0	0	40	60	100	2
BSTD202-20	Core Theory	Traditional Indian Textiles and Embroideries	3	1	0	40	60	100	4
BSTD203-20	Core Practical/Laboratory	Elements of Design	0	0	6	60	40	100	3
BSTD204-20	Core Practical/Laboratory	Advance Drawing	0	0	3	60	40	100	2
BSTD205-20	Core Practical/Laboratory	Weaving	0	0	6	60	40	100	3
BSTD206-20	Core Practical/Laboratory	C.A.D.-1	0	0	3	60	40	100	2
BSTD207-20	Core Practical/Laboratory	Sewing Skills	0	0	3	60	40	100	2
BSTD208-20	Core Practical/Laboratory	Fashion Photography.	0	0	3	50		50	2
EVS102-18	Ability Enhancement Compulsory Course (AECC) -III	Environmental Science	2	0	0	20	30	50	2
BTMD202-18		Mentoring and Professional Development	0	0	1	25	--	25	1
TOTAL			07	1	25	455	370	825	23

*A course can either have four Hrs Lecture or Three Hrs Lecture + One Hrs Tutorial as per requirement

* fashion Photography will be 7 working days module.

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Third Semester

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External		
BSTD301-20	Core Theory	Textile Finishes	2	1	0	40	60	100	3
BSTD302-20	Core Theory	Survey of Apparel Marketing and Merchandising	2	1	0	40	60	100	3
BSTD303-20	Core Practical	Fabric Studies	0	0	3	30	20	50	2
BSTD304-20	Core Practical	Craft Survey and Documentation	0	0	4	60	40	100	2
BSTD305-20	Core Practical/Laboratory	Home Furnishing	0	0	3	60	40	100	2
BSTD306-20	Core Practical/Laboratory	Design Process	0	0	3	60	40	100	2
BSTD307-20	Core Practical/Laboratory	Introduction to Rendering	0	0	3	30	20	50	2
BSTD308-20	Core Practical/Laboratory	C.A.D.-(NED GRAPHIC-PRINTS	0	0	6	60	40	100	3
BSTD309-20	Core Practical/Laboratory	C.A.D.-2	0	0	3	60	40	100	2
BSTD310-20	Skill Enhancement Course-I	Advance Weaving	0	0	5	40	60	100	3
BSTD311-20	Skill Enhancement Course- Laboratory	Fabric Handling	0	0	3	30	20	50	2
BMPD302-18		Mentoring and Professional Development	0	0	1	25	--	25	1
TOTAL			04	02	34	615	430	975	27

*A course can either have four Hrs Lecture or Three Hrs Lecture + One Hrs Tutorial as per requirement

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Fourth Semester

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External		
BSTD401-20	Core Theory	Fabric Quality Analysis	2	1	0	20	30	50	3
BSTD402-20	Core Theory	Introduction to Knitting	2	1	0	40	60	100	3
BSTD403-20	Core Theory	History of World Textiles	2	1	0	40	60	100	3
BSTD404-20	Core Theory	Art Appreciation	0	0	3	20	30	50	2
BSTD405-20	Core Theory +Practical	Visual Merchandising	0	0	3	60	40	100	2
BSTD406-20	Core Practical/Laboratory	Woven Design Project	0	0	6	60	40	100	4
BSTD407-20	Core Practical/Laboratory	Advance Rendering and Presentation	0	0	3	30	20	50	2
BSTD408-20	Core Practical/Laboratory	Sustainable Design	0	0	3	30	20	50	2
BSTD409-20	Skill Enhancement Course-II	Print Design Project	0	0	6	30	20	50	4
BSTD410-20	Skill Enhancement Course- Laboratory	Fabric Surface Techniques	0	0	3	30	20	50	2
BMPD402-18		Mentoring and Professional Development	0	0	1	25	--	25	1
TOTAL			6	03	28	385	340	725	28

*A course can either have four Hrs Lecture or Three Hrs Lecture + One Hrs Tutorial as per requirement

During summer break the student is required to go for internship of 45 days in any export house/design house/ designer or N.G.O.

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Fifth Semester

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External		
BSTD501-20	Skill Enhancement Course-III	Pattern Making and Draping	0	0	3	100	--	100	2
BSTD502-20	Skill Enhancement Course- Laboratory	Textile/ Textile Product Costing	0	0	2	50	--	50	2
BSTD503-20	Skill Enhancement Course- Laboratory	Woven Design Project	0	0	3	100	--	100	2
BSTD504-20	Skill Enhancement Course-IV	Print Design Project	0	0	3	100	--	100	2
BSTD505-20	Elective-I	Promotional Product Development	0	0	3	100	--	100	2
BSTD506-20	Elective-II	NED Graphics	0	0	3	100	--	100	2
BSTD507-20	Elective-I Laboratory	Trend Forecast	0	0	3	100	--	50	2
BSTD508-20		Industry Internship			3	100	--	100	2
BMPD502-18		Mentoring and Professional Development	0	0	1	25	--	25	1
	TOTAL		2	0	22	755	20	725	17

*A course can either have four Hrs Lecture or Three Hrs Lecture + One Hrs Tutorial as per requirement

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Sixth Semester

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L*	T*	P	Internal	External		
BSTD601-20	Skill Enhancement Course-IV	Art Portfolio	0	0	3	60	40	100	2
BSTD602-20	Core Theory	Intellectual Property Right and EDP	2	0	0	40	60	100	2
BSTD603-20	Skill Enhancement Course- Laboratory	Advance Degree Project	0	0	6	240	160	400	6
BMPD602-18		Mentoring and Professional Development	0	0	1	25	--	25	1
		TOTAL	2	0	10	365	260	625	11

*A course can either have four Hrs Lecture or Three Hrs Lecture + One Hrs Tutorial as per requirement

Total Marks of B.Sc. Program :

Total Credit of B.Sc. Program :

NOTE :

ONLY FOR BOS

The course types and their number are fixed as mentioned in the scheme however respective BOS can shuffle the courses as required.

**IK Gujral Punjab Technical University
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First Semester

ELEMENTS OF TEXTILES(BSTD 101-20)

OBJECTIVES

- To understand the importance of various segments of the textile industry .
- To understand and match the fiber properties with aesthetics, comfort, durability, safety, care & maintenance
- To understand the distinction between the various yarn types as well as their properties and end- uses.

CONTENTS

Unit 1

Textile industry overview

- Major production segments :Spinning, Weaving, Processing, Garmenting and home furnishing sectors in India
- SWOT analysis

Unit 2

Textile fibers

- Fibre classification
- Essential properties of textile fibers and how they effect aesthetics, durability, comfort, safety, care & maintenance
- Natural fibers-Cotton, Flax, Jute, Hemp, Silk &Wool.
- Man-Made Cellulose Fibers - viscose rayon, Acetate, Tencel
- Man made synthetic fibers - Nylon, Polyester, acrylic, Spandex, Olefin,
- Latest fibres

Unit 3

Textile yarns/ yarns manufacturing

- Yarn classification
- Yarn spinning process –ring Spinning & open end spinning
- Properties of yarns
- Yarn numbering system
- Yarn texturing
- Fancy yarns
- Sewing threads

Unit 4

Fabric Manufacturing

- Preparatory processes for fabric manufacturing
- Motions of weaving
- Calculation of loom production

References:

- Fabrics science by Joseph Puzzuto
- Fiber to fabric by Corbman
- Modern textiles by Dorothy Siegert Lyle
- Understanding fabric from fiber to finished cloth by Debbie and Giollo
- Understanding textiles by Phyllis G. Tortora and Billie J Collier

INTRODUCTION TO WEAVING (BSTD102-20)

OBJECTIVES

To understand weaving as a technique of fabric development and developing various basic weaves.

CONTENTS

Unit1

- To understand the basic types and functions of loom.
- To familiarize with the parts and function of table loom

Unit 2

- To learn the methods of fabric representation and the concept of repeat on point/graph paper.
- To understand principles of drafting, lifting and denting.
- To learn how to set up a loom for weaving
- To understand simple weaves, their usage and characteristics.

Unit 3

- To understand and implement the usage of different reeds.
- To understand the principles of warp length and width calculation for sample weaving.
- To set up the warp and weave all the simple fabric structures(Plain Weave and its variations(using 2 shafts only) Plain weave, Basket Weave and Rib Weave.
- To familiarize and explore with material as weft(Creative weaving) 10 samples of size 8*8 inches.
- Achieving various effects while weaving creative textiles.
- Understanding colour and weave effect(with woven samples) 10 samples of size 7*7 inches.

Teaching/Learning Methods :

Lecture, Slide presentation

Demonstrations

Workshop and practical applied design practice.

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Method of Assessment:

Observation on day to basis

- Submission
- Documentation in form of written notes, or main points with relevant diagram and sketches , if required.
 - Proper mounting (window mounting on both sides) of all the swatches.
 - Proper folder to carry and present the notes and swatches.

Evaluation Criteria:

- Understand the fundamentals of loom and weaving
- Understand and implementation of assignments
- Eagerness and initiatives to learn.
- Quality of explorations and weaving skills
- Group interaction , if any
- Attendance and sincerity
- Timely completion and submission of work.

ELEMENTS OF DESIGN(BSTD103-20)

OBJECTIVE

- To introduce the basic elements of design which are basic to print and weave design for designing fabrics for interiors and fashion.
- To make aware of the various aspects of color.
- To understand the role of color in day today 's life
- To understand the basic principles of color theory
- To understand and practice color psychology
- To learn how to achieve different colored surfaces with round and flat brushes as well as various mediums.
- To develop the awareness of color as an element of visual experience.
- Role of color in structure of form and composition
- To increase and build an acute sensitivity to the world around them. To develop and initialize a design vocabulary an essential tool for practicing as designers.
- To create visual images with a greater variety of methods and material to provide unexpected excitement and solutions.
- To introduce students to the importance of planning, decision making and presentation.
- To provide and develop fundamental skills of analysis, representation and interpretation in relation to surface design.
- To develop and awareness and curiosity to notice detailing in everything they see and touch.
- To gradually develop confidence in verbal and visual presentations and improve their communication skills during class presentations.

CONTENTS

Unit 1

1) Each element would begin with lectures on the particular element of design and its relation to nature and its relation to the design process.

The basic elements that would be taught are ;

- a) Texture
- b) Line
- c) Form and repeat
- d) Figure and ground
- e) Proportion
- f) Balance

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Unit 2

2) The awareness of the various aspects of color will enhance the application of color in design.

An illustrated lecture on color and how it pervades our existence and the basic principles of color theory. To facilitate an appreciation of the application of color in the arts. To bring about awareness of the way in which color has been made to work to suit the needs of the designer/artist/society's outlook and therefore requirement of the times. Practical application of color through various exercise dealing with the following ;

- Hue, intensity and value
- Saturated and de-saturated Hues
- Tints, tones and shades
- Color wheel
- Simultaneous contrast
- Change in hue, brilliance and luminosity
- Use of color to evoke moods
- Translation of colors in material and nature.

Unit 3

- 3) Motif
- 4) Background/foreground
- 5) Negative/Positive

INDICATIVE READING:

1. Grafix-by Wolfganheney
2. Traditional japanese- Small Motif-by Kamon Yoshimoto
3. Symbols Signs- by American institute for graphics arts.
4. Morocco modern- By Herbert YPMA
5. Cacti and Succulents – By Terry Hewitt
6. Encyclopedia of Butterfly World – By Paul Smart Fres.
7. Arabic Ornament- J Collin booking international paris
8. Repeat pattern-peter phillips Gillian buncethames Hudson
9. Japan Patterns- Belverde
10. Design and illustration (Marine)- M.Kumakiri SEI DEA SA
11. Design Element – 2 Richard hora, Miss hora, Art Direction Book Company, NY
12. From historic ornament : W & G Audsley Dover Publications Inc.Design and Pattern

BASIC DRAWING(BSCTD104-20)

OBJECTIVE

This will impart drawing skills that enable a designer to evolve his or her own visual language of design. The objectives of the course is to increase the proficiency in drawing skills and to inculcate ability in the application of translation of ideas into design.

CONTENTS

Unit1

1) INTRODUCTION TO SKETCHING

Introductory talk on drawing and the different media.

Unit 2

2) STILL LIFE and NATURE STUDY

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

Unit 3

#) DRAWING IN AN ACTIVE ENVIROMENT

This is to develop the students skills in quick sketching (Observation and fluidity of hand movement) This exercise will also assist them in acquiring discretion in selection of details of the object under study.

Evaluation Criteria

Minimum submission of 300 sketches

- 1.Classroom Assignments.
- 2.Creativity and Studio Skills.
- 3.Aptitude towards learning.
- 4.Display Skills
- 5.Documentation Skills
- 6.Attendance.

REFFRENCES

Art of Basic Drawing-Walter Foster

Basics of Computer (BSTD105-20)

Course Description

Develops introductory skills in the Microsoft Office Suite (Word, Excel and PowerPoint), Windows Explorer, Internet, and computer concepts through demonstrations and lab exercises.

Course objectives

Upon completion of this course students will be able to:

This course provides comprehensive overview of the may MS-OFFICE application. The main focus of the course will be to apply the right tools for the job as each application is explored to student will learn.

Core techniques
Designing tips and keyboard shortcuts
MS- OFFICE application best practice execution.

Duration-6 months
One class per week of 3 hrs.

Examination /Evaluation scheme

- **Practical Examination:** One Practical examination of 3 hours duration will be conducted on the modules described in the curriculum. The maximum marks will be 100.

Note: All topics are covered in extreme detail with practical examples for all.

Contents

Unit-I

Introduction to MS Word, Menus, Working with Documents, Formatting page and Setting Margins, Converting files to different formats, Editing text documents, Formatting documents, Creating Tables, Table settings, Tools, Word Completion, Spell Checks, Drawing and printing documents, Importing and Exporting, Sending files to others, Editing text documents, Inserting and Deleting, Find, Search, Replace Commands

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Unit-II

Introduction to Excel, Spreadsheet & its Applications, Menus, Toolbars, Working with Spreadsheets, Converting files to different formats, Computing data, Formatting spreadsheets, Working with sheets, Sorting, Filtering, Validation, Consolidation, Subtotal

Unit-III

Creating Charts, Selecting charts, Formatting charts, label, scaling etc., Using Tools, Error Checking, Spell Checks, Formula Auditing, Introduction to power point, Opening new Presentation, Selecting presentation layouts.

Unit-IV

Creating a presentation, Formatting a presentation, Adding style, Color, gradient fills, Arranging objects, Slide Background, Slide layout, Adding Graphics to the presentation, Inserting pictures, movies, tables, etc into the presentation, Drawing Pictures using Draw, Adding effects to the presentation, Setting Animation & transition effect, Adding audio and video.

Suggested Books

Microsoft office 2010 for Dummies, “Wallace Wang”, Wiley India Pvt. Limited, 2010.

YARN CRAFT (BSTD106-20)

OBJECTIVE

This project aims to:

- Expose the students to the various craft and textiles.
- Install appreciation for hand craftsmanship.
- Help the students in designing and product development, keeping in mind the skills and limitations of the craft.

Contents

Imparting knowledge of the following techniques for sample/product development

Unit 1

- Macrame
- Knotting
- Braiding
- Twining
- Tasselling

Unit 2

- Basic Knitting
- Crocheting
- Tatting
- Quilling Technique

Unit 3

- Carpet-making
- Tufting
- Hook Weaving
- Ribbon Weaving
- Other explorations.

Exploration, Improvisation and adaptation of the above techniques towards innovative surfaces and forms while using a variety of material of like different kinds of yarns, vegetable fibres , thread and ropes ribbons, braids, trimmings, paper, wires, fabric, acrylics, polythene, self reflecting foils etc.

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REFERENCE BOOKS:

- Textile & World
- Yarn to Play
- Quilts & Fabric
- Material Sciences
- Yarn & Craft

BASIC SEWING SKILLS(BSTD107-20)

OBJECTIVES

To introduce sewing machine and tools to the students. Students would be able to handle sewing machine and stitch creative surfaces.

CONTENTS

Unit 1

- Introduction to sewing tools and equipments.
- Industrial sewing machine- parts and their functions, maintenance.
- Sewing machine needle/ hand sewing needles.
- Threading of sewing machine.
- Sewing machine control exercise.
- Paper exercises.

Unit 2

- Relation of needle, thread and fabric.
- Sewing problems- their causes and remedies.
- Sewing on fabric- lines with different SPI, curves, circles, squares etc.

Unit 3

- Hand stitching- darning, basting and its types
- Seam- Introduction and its usage
- Creative sample development using techniques learnt

References:-

- The Art of Sewing by Reader's Digest.
- Step by Step Guide To Sewing Techniques-The Vogue Butterick

TRADITIONAL INDIAN EMBROIDERIES(BSTD108-20)

OBJECTIVE

To teach, origin, history, technique colors, motifs, layouts, religious, ceremonial/ social and economical importance of traditional embroideries.also students are required to embroider prototype samples of the below mentioned embroideries and maintained a file for the same.

Unit 1

- Kantha
- Phulkari
- Kashida

Unit 2

- Kutch
- Chickenkari

Field Visit - Visit to craft Musium /Craft Bazar and Exhibition .

REFERENCES:

- Indian embroidery- ChattopadhyayKamaladevi
- Traditional embroideries of India- Naik, Shailaya.D
- Indian embroideries: Irwin John
- Traditional textiles of India- by Rustam J. Mehta
- Zardozi- Gupta, C. Smita, Glittering Gold embroidery

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**AECC
BTHU103/18 English:
1L 0T 0P 1 Credit**

Course Outcomes:

- The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
- To help the students become the independent users of English language.
- To develop in them vital communication skills which are integral to their personal, social and professional interactions.
- The syllabus shall address the issues relating to the Language of communication.
- Students will become proficient in professional communication such as interviews, group discussions, office environments, important reading skills as well as writing skills such as report writing, note taking etc.

The recommended readings given at the end are only suggestive; the students and teachers have the freedom to consult other materials on various units/topics given below. Similarly, the questions in the examination will be aimed towards assessing the skills learnt by the students rather than the textual content of the recommended books.

Detailed Contents:

Unit1- 1 (Introduction)

1. Theory of Communication
2. Types and modes of Communication

Unit- 2 (Language of Communication)

1. Verbal and Non-verbal (Spoken and Written)
2. Personal, Social and Business Barriers and Strategies
3. Intra-personal, Inter-personal and Group communication

Unit-3 (Reading and Understanding)

Close Reading Comprehension Summary Paraphrasing
Analysis and Interpretation
Translation(from Hindi/Punjabi to English and vice-versa)
Literary/Knowledge Texts

Unit-4 (Writing Skills)

Documenting
Report Writing
Making notes
Letter writing

Recommended Readings:

1. *Fluency in English - Part II*, Oxford University Press, 2006.
2. *Business English*, Pearson, 2008.
3. *Language, Literature and Creativity*, Orient Blackswan, 2013.
4. *Language through Literature* (forthcoming) ed. Dr. Gauri Mishra, Dr Ranjana Kaul, Dr Brati Biswas

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5. *On Writing Well*. William Zinsser. Harper Resource Book. 20016. *Study Writing*. Liz Hamp-Lyons and Ben Heasley. Cambridge University Press. 2006.

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**AECC
BTHU104/18 English Practical/Laboratory
: 0L 0T 2P 1 Credit**

Course Outcomes:

The objective of this course is to introduce students to the theory, fundamentals and tools of communication.

To help the students become the independent users of English language.

To develop in them vital communication skills which are integral to personal, social and professional interactions.

The syllabus shall address the issues relating to the Language of communication. Students will become proficient in professional communication such as interviews, group discussions and business office environments, important reading skills as well as writing skills such as report writing, note taking etc.

The recommended readings given at the end are only suggestive; the students and teachers have the freedom to consult other materials on various units/topics given below. Similarly, the questions in the examination will be aimed towards assessing the skills learnt by the students rather than the textual content of the recommended books.

Interactive practice sessions in Language Lab on Oral Communication

Listening Comprehension

Self Introduction, Group Discussion and Role Play

Common Everyday Situations: Conversations and
Dialogues Communication at Workplace

Interviews

Formal Presentations

Monologue

Effective Communication/ Mis-
Communication Public Speaking

Recommended Readings:

1. *Fluency in English* - Part II, Oxford University Press, 2006.
2. *Business English*, Pearson, 2008.
3. *Practical English Usage*. Michael Swan. OUP. 1995.
4. *Communication Skills*. Sanjay Kumar and Pushp Lata. Oxford University Press. 2011.
5. *Exercises in Spoken English*. Parts. I-III. CIEFL, Hyderabad. Oxford University Press

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<u>HVPE101-18</u>	Ability Enhancement Compulsory Course(AECC)	Human Values, De-addiction and Traffic Rules
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Course Objective

This introductory course input is intended

- a. To help the students appreciate the essential complementarity between 'VALUES' and 'SKILLS' to ensure sustained happiness and prosperity which are the core aspirations of all human beings.
- b. To facilitate the development of a Holistic perspective among students towards life, profession and happiness, based on a correct understanding of the Human reality and therest of Existence. Such a holistic perspective forms the basis of Value based living in anatural way.
- c. To highlight plausible implications of such a Holistic understanding in terms of ethical human conduct, trustful and mutually satisfying human behavior and mutually enriching interaction with Nature. Thus, this course is intended to provide a much needed orientation input in Value Education to the young enquiring minds.

Course Methodology

- a) The methodology of this course is universally adaptable, involving a systematic and rational study of the human being vis-à-vis the rest of existence. It is free from any dogma or value prescriptions.
- b) It is a process of self-investigation and self-exploration, and not of giving sermons. Whatever is found as truth or reality is stated as proposal and the students are facilitated to verify it in their own right based on their Natural Acceptance and Experiential Validation.
- c) This process of self-exploration takes the form of a dialogue between the teacher and the students to begin with, and within the student himself/herself finally. This self-exploration also enables them to evaluate their pre-conditionings and present beliefs.

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<u>HVPE101-18</u>	Ability Enhancement Compulsory Course(AECC)	Human Values, De-addiction and Traffic Rules
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Total no. of Lectures: 28 [L-T-P: 3-0-0]

Content for Lectures:

Module 1: Course Introduction - Need, Basic Guidelines, Content and Process for Value Education [6]

1. Understanding the need, basic guidelines, content and process for Value Education
2. Self Exploration—what is it? - its content and process; ‘Natural Acceptance’ and Experiential
Validation- as the mechanism for self exploration
3. Continuous Happiness and Prosperity- A look at basic Human Aspirations
4. Right understanding, Relationship and Physical Facilities- the basic requirements for fulfillment of aspirations of every human being with their correct priority
5. Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario
6. Method to fulfill the above human aspirations: understanding and living in harmony at various levels

Module 2: Understanding Harmony in the Human Being - Harmony in Myself!

[6]

7. Understanding human being as a co-existence of the sentient ‘I’ and the material ‘Body’
8. Understanding the needs of Self (‘I’) and ‘Body’ - *Sukh* and *Suvidha*
9. Understanding the Body as an instrument of ‘I’ (I being the doer, seer and enjoyer)
10. Understanding the characteristics and activities of ‘I’ and harmony in ‘I’
11. Understanding the harmony of I with the Body: *Sanyam* and *Swasthya*; correct appraisal of Physical needs, meaning of Prosperity in detail
12. Programs to ensure *Sanyam* and *Swasthya*
- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 3: Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

[6]

13. Understanding harmony in the Family- the basic unit of human interaction
14. Understanding values in human-human relationship; meaning of *Nyaya* and program for its fulfillment to ensure *Ubhay-tripti*;
Trust (*Vishwas*) and Respect (*Samman*) as the foundational values of relationship
15. Understanding the meaning of *Vishwas*; Difference between intention and competence
16. Understanding the meaning of *Samman*, Difference between respect and differentiation;
the other salient values in relationship

Understanding the harmony in the society (society being an extension of family):

Samadhan, Samridhi, Abhay, Sah-astitva as comprehensive Human Goals

18. Visualizing a universal harmonious order in society- Undivided Society (*Akhand Samaj*), Universal Order (*Sarvabhaum Vyawastha*)- from family to world family!

- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 4: Understanding Harmony in the Nature and Existence - Whole existence as Coexistence

[4]

19. Understanding the harmony in the Nature

20. Interconnectedness and mutual fulfillment among the four orders of nature- recyclability and self-regulation in nature

21. Understanding Existence as Co-existence (*Sah-astitva*) of mutually interacting units in allpervasive

space

22. Holistic perception of harmony at all levels of existence

- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 5: Implications of the above Holistic Understanding of Harmony on Professional Ethics

[6]

23. Natural acceptance of human values

24. Definitiveness of Ethical Human Conduct

25. Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order

26. Competence in professional ethics:

a) Ability to utilize the professional competence for augmenting universal human order,

b) Ability to identify the scope and characteristics of people-friendly and ecofriendly production systems,

c) Ability to identify and develop appropriate technologies and management patterns for above production systems.

27. Case studies of typical holistic technologies, management models and production systems

28. Strategy for transition from the present state to Universal Human Order:

a) At the level of individual: as socially and ecologically responsible engineers,

technologists and managers

b) At the level of society: as mutually enriching institutions and organizations

Text Book

R R Gaur, R Sangal, G P Bagaria, 2009, *A Foundation Course in Value Education*.

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Reference Books

1. Ivan Illich, 1974, *Energy & Equity*, The Trinity Press, Worcester, and HarperCollins, USA
2. E.F. Schumacher, 1973, *Small is Beautiful: a study of economics as if people mattered*, Blond & Briggs, Britain.
3. A Nagraj, 1998, *Jeevan Vidya ek Parichay*, Divya Path Sansthan, Amarkantak.
4. Sussan George, 1976, *How the Other Half Dies*, Penguin Press. Reprinted 1986, 1991
5. PL Dhar, RR Gaur, 1990, *Science and Humanism*, Commonwealth Purblishers.
6. A.N. Tripathy, 2003, *Human Values*, New Age International Publishers.
7. Subhas Palekar, 2000, *How to practice Natural Farming*, Pracheen(Vaidik) Krishi Tantra Shodh, Amravati.
8. Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, William W. Behrens III, 1972, *Limits to Growth – Club of Rome’s report*, Universe Books.
9. E G Seebauer & Robert L. Berry, 2000, *Fundamentals of Ethics for Scientists & Engineers*, Oxford University Press
10. M Govindrajran, S Natrajan & V.S. Senthil Kumar, *Engineering Ethics (including Human Values)*, Eastern Economy Edition, Prentice Hall of India Ltd.
11. B P Banerjee, 2005, *Foundations of Ethics and Management*, Excel Books.
12. B L Bajpai, 2004, *Indian Ethos and Modern Management*, New Royal Book Co., Lucknow. Reprinted 2008.

Relevant CDs, Movies, Documentaries & Other Literature:

1. Value Education website, <http://uhv.ac.in>
2. Story of Stuff, <http://www.storyofstuff.com>
3. Al Gore, *An Inconvenient Truth*, Paramount Classics, USA
4. Charlie Chaplin, *Modern Times*, United Artists, USA
5. IIT Delhi, *Modern Technology – the Untold Story*

Human Values, De- addiction and Traffic Rules (Lab/ Seminar)

<u>HVPE102-18</u>	Ability Enhancement Compulsory Course(AECC)	Human Values, De-addiction and Traffic Rules) (Lab/ Seminar)
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One each seminar will be organized on Drug De-addiction and Traffic Rules. Eminent scholar and experts of the subject will be called for the Seminar atleast once during the semester. It will be binding for all the students to attend the seminar.

Mentoring and Professional Development BTMD102-18

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and
- GK) Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.

For achieving the above, suggestive list of activities to be conducted are:

Part – A

(Class Activities)

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

Part – B

(Outdoor Activities)

1. Sports/NSS/NCC
2. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Evaluation shall be based on rubrics for Part – A & B

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

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Second Semester

INTRODUCTION TO CHEMICAL PROCESSING(BSTD 201-20)

COURSE OBJECTIVES

To familiarize students with the role played by chemical Processing in Design and Production of Textiles and introduce them to the preparatory processes of all major textile fibres and their dyeing & printing.

Contents

Unit 1

- Grey Fabric Inspection
- Characteristic of impurities.
- Classification of impurities.

Unit 2

- Preparatory Process for cotton - Stitching, Singeing, Desizing , Scouring, Bleaching and Mercerisation
- Preparatory Process for wool and silk
- Preparation of blends

Unit 3

Definition of color, dyes, pigment.

- Classification of dyes.
- Application of dyes on textiles.

Unit 4

- Stages of dyeing
- Dyeing machinery
- Dyeing of blends
- Dyeing defects

Unit 5

- Methods of printing
- Styles of Printing
- Special prints
- Printing defects

REFERENES:

- Fabric Science by Joseph J. Puzzuto.
- Technology of Dyeing, Printing and Bleaching by Dr. V.A. Shenai.

TRADITIONAL INDIAN TEXTILES & EMBROIDERIES (BSTD202-20)

Objective

- Introduce students to the world of rich and glorious textiles and crafts of India, through an appreciation of its unfolding through the ages.
- To identify the technique of textile crafts used in a region by various communities and its economics and social implication
- To trace and examine the evolution of technique and design over a period of time
- To teach origing history , techniques colors, motifs, layouts, religious ceremonial/social and economical importance of traditional embroderies. Positioning of the embroidery in the present scenario.

The topics are taught covering the following aspects

1. References found in History
2. Origin/centres of Production
3. Technique,Colors,Motifs
4. Layouts
5. Religious/Ceremonial/Social and Economical importance
6. Positioning of the embroidery in the present scenario

Contents

Unit 1

(I) Study of **Woven Textiles** with reference to:

- Shawls
- Brocades- Banaras, South Indian, Baluchar, Paithani
- Tangail- Jamdani
- Sarees of India- Woven

Unit 2

(B) Study of **Printed and Painted Textiles** with reference to:

- Historical Significance
 - Printed Technique
 - Styles, Color and dyes and motifs
 - Centers of production
1. Kalamkari
 2. Block Printing (Gujarat and Rajasthan)
 3. Madhubani

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4. Indian Miniatures
5. Sarees of India
6. Worli
7. Mata- Ni- Pachedi ,Pichwais, PabuJi Ki Par
8. Rogan work
9. Ajarkh
10. Bagru&Sanganer Prints
11. North East Textiles.
12. Carpets of India

Unit 3

(C) Study of Resist Dyed Textiles

- Patola, Ikat and Pochampalli, Sambalpuri
- Bandhani of Rajasthan and Gujarat

Unit 4

- Kasuti
- Chamba
- Zardosi
- Applique
- Aari work

Field Visit- Report or Presentation on visit to various outlets in city to see the changes in popular traditional embroidery.

- Visit to Surajkund Mela.

Nature of assignments

- Study and research to document the traditional India Textiles and embroideries.
- Fields visits by the students to various production centers to show the samples of the above mentioned textiles, places like art galleries/ museums/ religious places.
- 2-3 days workshop with crafts people at craft museums, Shilpgram to get hand on experience of process and design development
- Visit to Crafts fair

References:-

- Traditional Indian Textiles, Gillow and Barnard
- Traditional fabrics of India, Jayshree Manchanda
- Hand woven fabrics of Indian by Jasleen Dhamija
- Indian Embroidery - Chattopadhyaya Kamaladevi
- Traditional Embroidery of India- Naik, Shailja D
- Indian Embroidery - Irwing John
- Traditional Textiles of India-By Rustam J Mehta'

ELEMENTS OF DESIGN(BSTD203-20)

OBJECTIVES

To introduce the basic Principles of design which are basic to print and weave design for designing fabrics for interiors and fashion.

To increase and build an acute sensitivity to the world around .To develop and initialize a design vocabulary, an essential tool for practicing as designers.

To create visual images with a greater variety of methods and material to provide unexpected excitement and solutions.

Contents

Each element would begin with lectures on the particular element of design and its relation to nature and its relation to the design process.

The basic elements that would be taught are :

Unit 1

- Form and repeat
- Figure and Ground

Unit 2

- Proportion
- Balance

References

- Grafix-By Wolfganhageney
- Traditional japanese Small Motif-By Kamon Yoshimoto
- Symbols Signs-by American Institute for graphic arts
- Morocco Modern – By Herbert YPMA
- Succulents – By Terry Hewitt
- Encyclopedia of Butterfly World-By Paul Smart Fres.
- Arabic Ornament – J Collin Booking International ,Paris
- Repeat Pattern – Peter Phillips Gillian buncethames, Hudson
- Japan Patterns-belverde
- Design and illustration (Marine)-M.KumakiriSELDEASA
- Design Elements2-Richard hora.MissHora Art Directon Book Company , NY
- From Historic Ornament: W & G Audsley Dover Publications Inc.

ADVANCE DRAWING (BSTD204-20)

Objective

Drawing being the initial expression of the creative mind, is the fundamental tool of the visual arts (Painting and Design). This has obvious links with areas of surface design, where the pattern of the fabric is a direct translation of the artist's rendering on paper (or other medium). Advance drawing skills will enable a designer to evolve his or her own visual language of design.

Contents

Unit 1

- Studying & Copying Works Of The Great Masters And Contemporary Artist It involves copying the sketches or other such works of Rembrandt, Pierre-Auguste Renoir, Piet Mondrian, Van Gogh, Paul Cézanne, Dali, Pablo Picasso and many others.
- FIELD TRIPS TO MONUMENTS & PLACES OF VISUAL INTEREST
- Drawing of local monuments to study the perspective of defined Space, Angles and Planes.

UNIT 2

- Model Drawing- To familiarize the students with proportions of the human body.
- Still Life
- Human Figures

UNIT 3

Perspective Drawing is an exercise to make the student understand the various perspectives of a form like buildings etc.. It will enable the artist to understand the depths the angles and proportions of a form when viewed from a distance.

Quick Sketching (doing sketches without eraser in 3-5 minutes)

500 sketches in the whole semester.

Evaluation Criteria

1. Classroom Assignments.
2. Creativity and Studio Skills.
3. Aptitude towards learning.
4. Display Skills
5. Documentation Skills
6. Attendance.

WEAVING (BSTD205-20)

OBJECTIVE

To understand and develop new innovative fabrics for the session, or make a survey as to which type of products should be launched for the forth coming season. This project will provide enough ground for the students to focus on explorations (concepts, medium technique, implementation) using various materials for weft e.g. cord , Jute, straw, paper, beads, leather thing, ribbons, braids, foils, vegetable fibres etc.

CONTENT

Understanding of types and weave structure for apparel and furnishing fabrics .

Unit 1

1) PLAIN WEAVES

-Plain Weave and its variations: Basket Weave, Warp Rib and Weft Rib.

2) TWILL WEAVES

-Regular twills

-Pointed twill

-Broken twill

- Herringbone twills

-Curved twills

-Steep twills

-Reclining twills

3) STAIN WEAVES

-Sateen and satin weaves

Unit 2

5) CREPE WEAVE

6) MOCK LENO-AND HUCK-A Back

7) HONEY COMBS

- Wrap Honey comb

-Weft Honey comb

-Brighton Honey comb

8) BED FORD CORDS

Unit 3

9) PILE WEAVES

Warp Pile Velvet ,Weft Pile Velvettee Corduroy weave construction

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- A) Setting up the warp for weaving
- B) Weaving conventional and unconventional structures to produce 10 samples each on two given theme by using various materials as weft to achieve new effects.
- C) Size of each sample : 8”x 10”

REFERENCE:

- Mildred Constantine, Jack Lenor Larsen/The art Fabric Mainstream/Kodansha International Ltd Tokyo.1985
- Sahah E Braddock and Marie o Mahony/Tecno Textile Revolutionary Fabrics for Fashion Design/Themes and Hudson 1998
- Katherine Westpal/The surface Designers ART/Lark Books 1993
- Textile Design by Watson
- Advanced Textile Design by Watson
- Woven Structure and design by Doris Hoerner.

C.A.D.-1 (BSTD206-20)

Course Description

This course is aimed at students and design professionals who are interested in learning how to design, print using Photoshop. To create, capture and enhance the images in accordance with the final objective. It is a bitmap based graphic designing program that designers use to create professional artwork or advertisements. In this course, students will explore the advanced features available with Photoshop including advanced text, color, layout and layers styles.

Objectives

- Learn how to manipulate, edit, and adjust images by using, the different tools in Photoshop. Students will learn how to apply layer effects and filters to create special effects, including lighting and texture effects.
- To show advanced skills in using painting tools and blending modes to create special effects and quality artworks.
- Perform good skill in color correction and restoration of photographs and images.
- To learn how to optimize images for use on the Web, and the advantages of using image slicing techniques.
- Demonstrate basic skills in developing a time-based production

- Duration-6 months
- One class per week of 3 hrs.

Teaching Techniques

- Classroom lectures, demonstrations, & discussions.
- Individual and small group work.
- Hands-on lab classes/Assignments

Pre-requisite

Students should have basic knowledge in using Windows operating system and to access and work with the files and programs using Windows OS. It will be more preferable, if you have color sense and some photography or artistic skills.

Note: All topics are covered in extreme detail with practical examples for all.

Examination /Evaluation scheme

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- **Practical Examination:** One Practical examination of 3 hours duration will be

Conducted on the modules described in the curriculum.

Unit-I

Introduction To Adobe Photoshop, Opening new files, Opening existing files, exploring the Toolbox, Exploring Panels & Menus, Creating & Viewing a New Document, About Photoshop, Navigating Photoshop, Working with Images and Basic Selections, Working with Multiple Images, Rulers, Guides & Grids, Adjusting Color with the New Adjustments Panel, Getting Started With Layers And Painting Commands, Understanding the Background Layer, Creating, Selecting, Linking & Deleting Layers, Introduction to Blending Modes

Unit-II

Photo Draping In Adobe Photoshop, Photo Draping Basics, Using a Wrap tool to Photo, Photo Draping a garment/dress with Blending modes, Photo Draping a Bed, Painting In Photoshop Using the Brush Tool, Working with Colors & Swatches, Creating & Using Gradients, Creating & Working with Brushes.

Unit-III

Photo Retouching And Color Correction, The Red Eye Tool, The Clone Stamp Tool, The Patch Tool & the Healing Brush Tool, The Spot Healing Brush Tool, The Color Replacement Tool, Adjusting Levels, Adjust Curves, Non-Destructively, with Adjustment Layers

Unit-IV

Using Quick Mask Mode And The Pen Tool, Working With Colors And Color Settings, Working with the Color palette, Using the Color palette, Editing Foreground color and Background color, Using the Color ramp, Setting the CMYK Color gamut, Creating Special Effects, Getting Started with Photoshop Filters, Smart Filters, Creating Text Effects, Applying Gradients to Text.

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SEWING SKILLS(BSTD207-20)

OBJECTIVES : To enable students to learn and acquire skills related to fabric manipulation and product development.

CONTENTS

Unit 1

- Tucks
- Gathers and Shirring
- Pleats
- Darts

Unit 2

- Hemming-Terminology and techniques
- Introduction to fasteners and their application
- Zippers, buttons and button hole , rivets, velcro etc.
- Edge finishes- piping, binding, band applicaton, drawstrings, Tape finish (Curtains)

Unit 3

- Creative surface development using the techniques learnt.
- End Product: Sample development of the above mentioned techniques.

References

- A Step by Step Guide to Sewing- Reader's Digest
- Sewing Book A-Z -Clark Coats
- The Hamlyn Book Of Soft Furnishing
- Art of Sewing -Thomas Jacob

Fashion Photography (BSTD208-20)

Course Objectives:

To introduce the students to the basics of dyeing and printing.

The course is designed to train professionals to design an image, build a set for a photo shoot, and

manage the post-production of photographs. This course leading to a specialization in Fashion Photography is targeted at anyone interested in acquiring the professional training necessary to become immediately competitive in the job market. The professional fashion photographer must be competent in every creative process of fashion photography, whether photographs are taken in the studio or outdoors or are still-life compositions. Students will learn to present their work in digital and printed portfolios, important means of showing all of their professional skills.

Unit-I

Introduction of Camera & its functioning

Various types of cameras and various camera lenses

Different type of image storage methods

Different types of photography techniques

Unit II

Rules, Compositions, and Framing in Photography

Different clicked Angles and Shots

White Balance and Color Theory

Unit III

Functioning of Camera

Various Lighting Techniques and effects

Camera Accessories

Unit IV

Students are required to undertake following assignments during the course:

Capture different types of fabric textures and textiles

Produce a video of any Product/ Garment by using different techniques.

Shoot various dresses and accessories on outdoor locations.

Photo shoot of a model for the cover page of a Magazine.

Suggested Readings/ Books;

All about SLR 35 mm camera

“Video Production” by Vasuki Belavadi

“A Different Vision” by Peter Lindbergh

❖ **This is a seven day module conducted during the working days of the semester**

❖ **A course can either have four hrs lecture or three hrs lecture+one Hrs Tutorial as per requirement**

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ENVIRONMENTAL SCIENCE:EV102-18

Course Code	Course Type	Course Title	Load Allocations			Mark Distribution		Total Marks	Credits
						Internal	External		
EV102-18	Ability Enhancement Compulsory Course (AECC)-III	Environmental Studies	2	0	0	40	60	100	2

Course Outcomes:

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

Unit 1:

Introduction to environmental studies

- Multidisciplinary nature of environmental studies;
 - Scope and importance; Concept of sustainability and sustainable development.
- (2 lectures)

Unit 2:

Ecosystems

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
- a) Forest ecosystem
 - b) Grassland ecosystem

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- c) Desert ecosystem
- d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)
(6 lectures)

Unit 3:

Natural Resources:

Renewable and Non-- - renewable Resources

- Land resources and land use change; Land degradation, soil erosion and desertification.
- Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
-
- Water: Use and over-- - exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-- - state).
- Energy resources: Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.
(8 lectures)

Unit 4:

Biodiversity and Conservation

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeography zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega-- - biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man-- - wildlife conflicts, Biological Invasions; Conservation of biodiversity: In-- - situ and Ex-- - situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.
(8 lectures)

Unit 5 :

Environmental Pollution

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management: Control measures of urban and industrial waste.
- Pollution case studies.
(8 lectures)

Unit 6:

Environmental Policies & Practices

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture
- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).

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- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context. (7 lectures)

Unit 7:

Human Communities and the Environment

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management: floods, earthquake, cyclones and landslides.
- Environmental movements: Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

Unit 8:

Field work

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site-- - Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems-- - pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

Suggested Readings:

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R.1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999.*Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll.*Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36-- - 37.
7. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp.29-- - 64). Zed Books.
8. McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
9. Odum, E.P., Odum, H.T. & Andrews, J. 1971.*Fundamentals of Ecology*. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012.*Environment*. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India*. Tripathi 1992.
14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.

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15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*.

Oxford University Press.

MENTORING AND PROFESSIONAL DEVELOPMENT:BTMD202-18

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

Overall Personality

Aptitude (Technical and General)

General Awareness (Current Affairs and GK)

Communication Skills

Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.

For achieving the above, suggestive list of activities to be conducted are:

Part – A

(Class Activities)

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

Part – B

(Outdoor Activities)

3. Sports/NSS/NCC
 4. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.
- Evaluation shall be based on rubrics for Part – A & B
Mentors/Faculty Incharge shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

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THIRD SEMESTER

TEXTILE FINISHES(BSTD301-20)

Course objectives :

The object of the course is to impart adequate input of the finishing of fabric and garment to the students. Since finishing is one of the most important areas of the final product, good understanding of the various finishes and their application techniques is becoming increasingly important especially to compete in the international market.

Unit I

- Objectives of Finishing
- Classification of finishes
- Various terms used in finishing of fabric

Unit II

- Detailed description of various mechanical finishing operations
- Resin finishing
- Finishing of wool & silk
- Functional Finishes
- Denim washes
- Spotting and washing

Unit III

- Packaging and folding
- Pressing

References:

- Hall , A.J., " Textile Finishing ", Elsevier Publishing Co. Ltd., 1986.
- Marsh, J.T., " An Introduction to Textile Finishing ", Chapman and Hall Ltd., London, 1979.
- Shenai, V.A., " Technology of Textile Finishing " , Sevak Publications, Bombay, 1995.
- Garment wet processing technical manual AATCC/SDC 1994

SURVEY OF APPAREL MARKETING & MERCHANDISING(BSTD 302-20)

Unit I

Theory

Introduction, Meaning, nature, functions, importance, marketing environment

- Definitions of Marketing, Concept of Marketing
- Marketing Mix
- Segmentation
- Targeting
- Positioning
- Analysis of consumer markets and buyer behavior

Unit II

- Product Mix, Product Life Cycle, New Product Development
- Pricing Objectives & Pricing Methods
- Distribution Channels: Types, Levels, Development.
- Promotion Mix.

Unit III

- Marketing channels, retailing, wholesaling,
- Merchandising- definition, role and responsibilities of a merchandiser
- 6 months merchandising plan-buying calendar
- Retail fashion promotion -
sales promotion, advertising, branding, public relation, special events
- Retailing- types of retail operations.

Unit IV

Brand Management: Brand definition, layers of brand, product and service brands, branding options, branding and buying process

Brand identity and brand positioning- concept, identity image, positioning, limitations of positioning, identity six facets prism

Brand equity;-concept, value of brands to companies

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Books

- Essentials of Marketing - Jerome E. McCarthy & William D. Perrault
- Principals of Marketing - Philip Kotler 11th edition
- Essentials of Marketing - Stanton&Futrell
- Fashion Innovation & Marketing - Catherine Moore
- How to sell Fashion - Annalee Gold
- Fashion Marketing - Janet Bohdanowicz&LisClamb
- Fashion from concept to consumer- Stephen Fringes
- Philip Kotler, WaldemarPfoertsh: B2B Brand Management, Springer.
- Gary L. Lilen&ArvindRangswami: New Product and Brand Management - Marketing Engineering

Magazines /Journals

- Journal of Fashion Marketing Management
- Business World
- Business India
- Business Today
- Adv. & Marketing

FABRIC STUDIES(BSTD303-20)

Objectives

- To be able to identify various fabrics found in the national & international market.
- Be able to design or select an appropriate fabric for a product on the basis of function, performance and maintenance of various fabrics.

Course Contents

(A) Basic fabrics (e.g. alpaca, Batiste, Broadcloth etc)dealt with in alphabetic order covering the following aspects

- Appearance
- Ways to identifying a particular fabric
- Basic construction or finishing technique
- Performance
- Maintenance
- End- Usage
- Points to keep in mind while stitching, using and washing of a particular fabric

(B) The lectures are supported by showing swatches of international representational fabrics from the resource centre. Students feel the texture and to get an idea of fabric drapability and appearance.

Page

CRAFT SURVEY AND DOCUMENTATION (BSTD304-20)

Objectives

- Expose the students to the variegated crafts and textiles.
- Install appreciation for hand craftsmanship.
- Expose the students to actual environment of the origin & sustenance of the textile crafts.
- Teach effective information gathering, communication, data collection and finally documentation.

Contents

Survey and documentation of the selected craft situation as it exists and how it has evolved. Students will visit the chosen craft area and will study the textile craft and handicrafts of the area in detail: the technologies as well as the present status of the craft, role of textile designer to uplift the craft. Study the consumer choice, the marketing channels and outlet; they will make a detailed documentation of the process, implements ,materials used etc.

Craft Documentation will be undertaken during the semester for a period of 10 working days.

HOME FURNISHING(BSTD305-20)

Course Objective:

- To understand the generation of various textiles changes in terms of surface alteration achieved by changing materials, colour, count,
- To do through research and development of various materials, effects, technique and thereby weave or construct samples, keeping in mind the cost involved.

Course Contents :

1. Students are required to set up a single colour wrap (white) to weave at least 15 samples
2. The weft used to weave these samples has to non conventional material (e.g. jute, paper, ribbons, coir, dori, feathers, fancy yarns, laces)
3. the size of each sample to be atleast 8”x10”
4. All the samples woven have to be identified for their proposed endues along with appropriate sketches
5. The samples woven or created have to be calculated for the cost factor
6. Teaching/Learning Methods
7. Demonstration
8. Workshop and practical applied design
9. Weaving practical- on the sample looms

. Evaluation Criteria

- Understanding of the assignment
- Material explored
- Skills used
- Eagerness to learn and explore
- Attendance and punctuality
- Timely completion of the assignment
- Finish and neatness

DESIGN PROCESS(BSTD306-20)

Objectives

- To provide students a sound foundation for any design work based on creativity and technical knowledge.
- To create a conscious awareness with regard to each step in the design process.
- To develop the ability to understand a particular theme and demonstrate this understanding in the form of 3 dimensional theme board, initial concepts and a final print design of a garment.
- To use a surface design skills like weaves, dyes,embroidery etc. for creating fabric ideas for the product.
- To learn to develop a color palette from the theme or source of inspiration.
- To develop the ability to verbally present their own work/designs to class during class hours in mock presentation every week.

Contents

Unit I

- Introduction; meaning and nature of research; significance of research in business decision making, identification and formulation of research problem, setting objectives and formulation of hypotheses.
- Research design and data collection; research designs - exploratory, descriptive, diagnostic and experimental data collection; universe, survey population, sampling and sampling designs. Data collection tools- schedule, questionnaire, interview and observation, use of SPSS.

Unit II

- 1.Theme board/source of inspiration
- 2.Color palette
- 3.Initial concepts

Unit III

4. Material explorations/surface designs
- 5.Illustrated final concept with details
- 6.Final product followed by a presentation

Reference

- Kothari, C.R. (1990) Research Methodology - Methods and Techniques 2nd Ed. New Delhi: ViswaPrakashan
- Majumdar, Ramanuj (1991) Marketing Research Text, Applications and Case Studies. New Delhi: Wiley Eastern Edition.

INTRODUCTION TO RENDERING (BSTD 307-20)

Objectives:

- To construct confidence in presentation skills as a professional designer
- To develop and discover more about the relationship between the design and visualization of presentation skills

Contents:

Unit I

- Concepts with different mediums like pencils, micro tip pen, crayons & steadlers
- Theory of different projections
- Study of elevations & standard measurements of furniture

Unit II

- Plan, elevations & views of chair, study table & double bed, sofa etc
- Textures of different fabrics
- Color effects

Unit III

- Perspective view of bedroom, living room
- Rendering of throw pillows & cushions
- Rendering of different styles/patterns of curtains along with swags, cascades, valances & jabots
- Theory related to styles/patterns of curtains
- Bed coverings of different styles.
- Display of works of art/painting/sculptures/photographs etc.

CAD NED GRAPHICS-Prints (BSTD308-20)

Objective:

To introduce to the students the basics of using the Printing Studio Suite in ned graphics.

Contents:

- Colour Reduction and Repeat Pro: The ultimate image processing solution: to convert any image into a useable textile design.
- Design and Repeat Pro: To create and develop designs of the highest possible quality and use engraving tools for the most accurate preparation of manufacturing - ready digital files in a repeat form.

Evaluation Criteria:

- Classroom Assignments
- Understanding the usage of the tools
- Documentation
- Attendance

C.A.D.-2 (BSTD309-20)

Course Description:

This course is aimed at students and design professionals who are interested in learning how to design, print using Corel DRAW. To create, capture and enhance the images in accordance with the final objective. It is a vector based graphic designing program that designers use to create professional artwork or advertisements. In this course, students will explore the advanced features available with CorelDraw including advanced text, color, layout, layers styles and template techniques.

Objectives:

- After completing this course, you will be able to use CorelDraw advanced text, color, layout, latter style, and template techniques etc
- Students will learn how to apply layer effects and filters to create special effects, including lighting and texture effects.
- To show advanced skills in using painting tools and blending modes to create special effects and quality artworks.
- Perform good skill in Designing brochures, pamphlets, magazine cover pages, cards, logos and advertisements etc.
- Duration-6 months
- One class per week of 3 hrs.

Teaching Techniques

- Classroom lectures, demonstrations, & discussions.
- Individual and small group work.
- Hands-on lab classes/Assignments

Examination /Evaluation scheme

- **Practical Examination:** One Practical examination of 3 hours duration will be conducted on the modules described in the curriculum. The maximum marks will be 100.

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Unit-I

Introduction to Corel draw, Exploring the CorelDraw Screen, Inserting and Deleting Pages, Changing Page, Customizing Options, Using Multiple Workspaces, Creation and manipulation, Drawing and Shaping Tools, Using the Freehand Tool, Drawing Lines and Polylines, Working With Special Effects And Texts, Drawing With the Artistic Media Tool, Shaping an Object with an Envelope, Extruding an Object, Blending Two Objects, Using the Lens Effect, Adding Perspectives, Using Power Clips

Unit-II

Using Fill Tool, Fountain Fill, Pattern Fill, Interactive Mesh fill, Copying Attributes, Setting Outline and Fill Defaults, Arranging Objects, Grouping and Ungrouping Objects, Using Guidelines, Using Dynamic Guides, Using Snap To, Aligning Objects, Group and Child Objects, Combining and Breaking Objects, Welding Objects, Using Intersection

Unit-III

Working With Paragraph, Importing and Sizing Paragraph Text, Flowing Text Between Frames, Formatting Paragraph Frames, Wrapping Paragraph Text Around Objects, Applying Drop Caps, Typing Text Into Objects, Special Text Effects, Fitting Text to a Path Working With Colors, Fills, & Outlines, Color Palettes, Fills & Outlines, Eyedropper Tool Smart Fill.

Unit-IV

Deleting Objects, Sizing Objects, Transforming Objects, Mirroring Objects, Rotating and Skewing Objects, Typing Text into Objects, Converting Text to Curves, Creating Blended Text Shadows, Using Symbols and Clipart, Inserting Text Symbols, Adding Clipart, Modifying Clipart, Working With Bitmaps, What is a Bitmap, Importing Bitmap Options

Suggested Books

- Microsoft office 2010 for Dummies, “Wallace Wang”, Wiley India Pvt. Limited, 2010.
- Coreldraw X5 In Simple Steps ,”Kogent Learning Solutions Inc”, Wiley India Pvt. Limited, 2011.
- Photoshop Cs2 (savvy), By Romaniello

ADVANCE WEAVING: (BSTD310-20)

Objective

- To create an understanding of how to design textile surfaces in weaving.
- To provide an opportunity for creating designs in form of patterns, surface textures and layouts in weaving.
- To understand the constraints of warp and weft as well as the limitations of drafting and lifting plans before trying out a new design.
- Understanding of systematic way of design methodology i.e. theme, color story, product, market, cost and material etc
- To weave and achieve the design collection planned on paper.

Course Content

Unit I

I .Jacquard loom II .Dobby loom

Unit II

III. Drop box loom

IV. Punching and understanding the technology of air jet looms water jet looms.

Assignments

- To textile design students will be encouraged to experiment in the construction of weaves and to evolve their own design.
- Structures in combination with weaving sets, yarns and colors can alter the appearance of a woven sample considerably.
- Visualization, concepts development and exploration of various design ideas ,Concepts.
- Streamlining the selected design concepts in two different collections.
- Testing the suitability of the selected design to the proper structures, weight type yarn and its count.
- The basic understanding the woven designs validity to apparel furnishings and floor coverings.
- Developing of the design collections keeping an hypothetical brief or client and execution of same on looms.

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- Introduction to the furnishing of end products and woven swatches.
- Presentation at different stages of project such as moldboard, colour, story, concepts, layouts, woven swatches etc

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- Documentation of the project should include written notes, drawings, mood boards, sketch/design ideas, artworks, graphs, and presentation of woven swatches with weaving particulars.

Reference:

- Fabric Science - Joseph
- Fibre to fibre - Corbman
- Understanding textiles - Tortore&Coller
- Essential of textiles - Joseph, Marjorie

FABRIC HANDLING: (BSTD311-20)

Objectives

- Students should be able to understand the layout ,marking, cutting, sewing and furnishing of various fabrics in a sewing room or production floor.

Contents

Unit I

1. Introduction to layout, marking and cutting
2. Different types of seam and seam finishing

Unit II

3. Handling different fabrics through cutting and furnishing techniques and development of samples in

- denim
- satin
- organza/organdy
- chiffon/ georgette/ crepe
- velvet/ corduroy
- knits
- silk
- loosely woven fabric
- embroidered fabric

Development of a creative sample/ product choosing any one of the above mentioned fabrics

BMPD 302-18

Mentoring and Professional Development for Documenting Craft

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part – A

(Class Activities)

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

Part – B

(Outdoor Activities)

1. Sports/NSS/NCC
2. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Evaluation shall be based on rubrics for Part – A & B

Mentors/Faculty in-charges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

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Fourth Semester

FABRIC QUALITY ANALYSIS(BSTD401-20)

COURSE OBJECTIVES –

- To understand the procedures used to identify the nature and characteristics of woven fabrics
To understand how to calculate the length and weight of warp/ weft yarns to produce the required length of woven fabrics.
- To understand the calculations pertaining the speed and production of loom.

Contents

1) Yarn Count

- Detailed discussion about the yarn numbering system in both Direct & indirect systems
- The importance of yarn count and how it will affect the cost and performance of fabrics
- Calculations to convert one system to another system
- Practical demonstration to find out yarn count of both wrap and weft from given small piece of fabric by using a beasley balance

2) Fabric Weight

- Using pick glass to find out EPI & PPI
- Importance of crimp and crimp calculation
- Calculation to find out the length of wrap and weft yarn required to produce the required woven length of fabric, considering crimp.
- GSM calculation
- Various methods used to express fabric weight in Global Market
- Classifications of fabrics according to weight/unit area (Light weight, Medium weight, Heavy weight etc) and their end uses.

3) Wrap and Weft weight calculation by using yarn count to produce required length and width of woven fabric

4) Calculation of the reed width and tape length.

5) Fabric Cover Factor - Definition of wrap/weft cover factor, calculation of fabric cover factor and its importance

6) Bow & Skew - Definition ,calculation to find Bow & Skew for woven and knitted fabrics

7) Weave Analysis - Weave analysis by using pick glass for any given sample of woven fabric to derive weave, drafting & lifting plan and the wrap and weft color pattern

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8) Defects in woven fabrics and causes

9) Fabric inspection systems

Reference Books:

- Fabric Science by Puzzuto
- Textile Testing by J.E. Booth
- Weaving Calculation by Sen Gupta
- Quality Assurance for Textiles of apparels by Sara J Kadolph
- Textiles in Perspectives by Betty F Smith/ Iva Block

INTRODUCTION TO KNITTING (BSTD402-20)

Objectives

- To understand the textile in context to knitting.
- To learn the fundamentals of warp and weft knitting.
- To familiarize with the parts and function of knitting machine.
- To develop knitting skills.
- To create visual images in knitting.
- Knitted concept with a greater variety of methods and material to provide unexpected excitements and solutions.
- To develop theme and mood board and color palettes for knitted fabrics.
- Year/season and country to develop a forecast for knitted fabric for interiors and fashion.

Contents

Unit -1

- Introduction to knitting industry.
- Important definition of knitting terms.
- Types of needles.
- Types and construction of knitting stitches.
- Plain stitch.
- Purl stitch.
- Miss stitch.
- Tuck stitch.

Unit - II

Classification of weft knitted fabrics

- Jersey
- Rib
- Purl knit
- Interlock
- Double knit fabric
- High pile fabric

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- Fully fashioned fabric
- Knitted terry
- Knitted Velour
- Tuck loops
- Welt loops
- Transferred lops

Unit III

Categories of Warp Knit

- Warp knitted fabrics
- Loop structure in warp knit
- Identification of warp knits

Classification of Warp knit-tericot fabric and Raschel

- Tricot fabric
- Tricot knitting machine
- Yarn in tericot fabric
- Types and properties of Tricot fabric
- Fabric characteristics
- Raschel fabric
- Distinguish between Raschel and tricot fabris

Unit IV

- Difference between woven and knitted fabric
- Effect of fabric construction on Knitted fabric

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HISTORY OF WORLD TEXTILES(BSTD403-20)

OBJECTIVES

- Students would Gain knowledge of the various textiles of the world
- Would be able to recognise the textile piece on the basis of color, design, technique and material used.
- Be able to draw out inspiration for the new designs.
- Be able to understand the salient feature and style of a particular region

CONTENTS

The textiles of various regions of the world be taught with respect to:

- References found in the history
- Origin
- Location of the textiles
- Techniques
- Important features like color, design etc of the textiles covered.

Various Textiles Include

Unit I

- Tapestries
- Laces
- Carpets

Unit II

- Embroideries
- Brocades
- Chinese and Japanese Textiles

Unit II

- Fabric of South East Asia
- African Textiles
- American Textiles

REFERENCE :

- 500 years of Textiles - Haris, Jennifer
- Illustrated history of Textile - Ginsburg
- Victoria and Albert Museum Collection of European Textile Design

ART APPRECIATION (BSTD404-20)

Contents

UNIT I

- The basis of Art in the Indian Subcontinent.
- An overview of the phases of art history in the Indian Subcontinent-their development and evolution.
- The Oriental (Eastern) and the Occidental (Western) view of art (a comparative study)

UNIT II

- Religion and Art .(Hinduism, Buddhism, Islamic, Christianity)
- The evolution of human form in Indian Art (Indus Valley to the Gupta Period)
- The painting tradition of India (Manuscripts, The Ajanta Frescoes, Traditional Indian , Mughal and Islamic Painting tradition)

UNIT II

- The evolution of the temple architecture.
- Important Islamic Architecture

The students will go through the theory of the above given topics along with visuals and references from the books. The students are expected to design an end product after being given the above input. The process of developing the end product will involve extensive research ,source of inspiration and proper design process.

VISUAL MERCHANDISING (Theory+ Practical)(BSTD405-20)

Objective:

- To understand the functional nature of Visual merchandising as on Art and also as a science.
Application of principles of VM for store display and window display.
- To introduce the visual and display properties of merchandise presentation functional and decorative units for display and exhibits are designed and critiqued.

Course Contents:

Unit I

- Visual merchandising; introduction, meaning advantages The exterior of store- signs, marquees, outdoor display,

Unit II

- Types of windows- close back, openback, island, shadow boxes
- Store interiors- displays, counters and display cases, shadow boxes, columns, fascia

Unit III

- Color and texture- physical and psychological reactions to color, colormixing, color schemes
- Lighting - color, primary secondary lighting, colored and filtered lights
- Mannequins and dimensional forms
- Fixtures- types

Unit IV

- Types of displays and floor plans
- Visual merchandise planning.

Reference-

Martin M. Pegler: Visual Merchandising and Display, Fifth Edition, Fairchild Books.

Robert Colborne: Visual merchandising: the Business of Merchandise Presentation,
Thomson Learning.

Richard Carty: Visual Merchandising: Principles and Practice, MPC Educational Publishers.

Swati Bhall, AnuraagSinghal: Visual Merchandising, Aba book.

WOVEN DESIGN PROJECT(BSTD406-20)

Course content

- The student are required to explore and implement the various woven patterns on 8 shafts/12 to make an end product
- The choice of end product should clearly specify and mention the new innovation by the student

Marks to be given on the basis of

- Creativity
- Exploration
- Color scheme
- overall impact

The student to weave any 3 finished end product

ADVANCED RENDERING AND PRESENTATION (BSTD407-20)

Contents

Unit I

- Presentation Skills
- Rendering with water proof inks
- Drawing fabrics with the help of microtip pen
- Rendering of different weaves and fabrics

Unit II

- Elevation and Section elevation views of rooms
- Drawing with the help of orthographic projection
- Rendering of different materials like bags, rugs, bedcovers, etc.

Unit III

- Perspective view of Bedroom/living room/drawing room/ children's room with different mediums.
- Rendering related to floor coverings(rug, carpet, durries etc)

SUSTAINABLE DESIGN(BSTD408-20)

Objectives

- Increase understanding of the role of sustainable design in "future design practice" and "knowledge of the discipline for the benefit of society"
- Increase understanding of the scope of sustainable design
- Increase abilities to apply sustainable design techniques
- Increase abilities to communicate the necessity for and outcomes of sustainable design
- Increase understanding of sustainable design as an evidence-based design method

Fashion by its very nature is a consuming business and while eco, green, natural clothing was 'in' a few years ago, it is maybe not as popular as it was. However, all the hype about clean green textiles did leave the legacy of a genuine concern about the impact of textiles on the environment.

Designers can make a difference by:

Understanding the theoretical, technical and practical considerations of the entire production process of a product asking questions collaborating with technologists, scientists, growers, manufacturers and marketing departments understanding the performance and aesthetic qualities that are high on the consumer agenda understanding how the consumer will use the product.

PRINT DESIGN PROJECT(BSTD409-20)

Objectives:

- To construct a professional Design brief of printed design.
- To introduce the use of varied art media to develop concepts and art works.
- To develop a keen observation of color and print and weave trends for a particular year/season/and country to develop a forecast for printed textiles for interiors and fashion.
- To develop theme and mood boards and color palettes.
- To get a clear understanding of designing a coordination collection.
- To get a clear understanding of the use of the color and color ways.
- To be able to present a collection of print design in repeats.
- To Illustrate the chosen print design collection in an interior or show its use when the collection is for fashion textiles.
- To present all the print work in a state exhibition so as to develop team spirit and professionalism

Contents

UNIT I

- Developing a design brief
- Understanding the design process

UNIT II

- Forecast research
- Developing a sketchbook
- Making a mood board
- Developing a color board and a color palette

UNIT III

- Experimental use of mix media and various techniques to develop concepts including hand printing on fabrics
- Developing a collection of prints and putting the designs in repeats ready for Printing
- Understanding the printing process in the industry
- Using CAD for working out color separations and permutation of various repeats of designs ,
- Making illustrations showing end use of the product

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- Planning and execution of an exhibition of print collection at the time of assessment

References

- The grammar of ornament-Owen Jones Dover publications in NY
- Authentic Victorian decoration and ornamentation, Christopher Dresser Dover publication IncNY
- Position design Kyoto Shain
- ART Nouveau Patterns and designs. R.Beau Clair
- Art deco- the European style- S.morgon,Arlington Press
- Tricia Guild New Soft furnishings David Montgomery
- Abstract pattern Kyoto Shion
- Floral ornament- booking international
- Silk Painting Workshop- Jane Venables
- Ethnic AsiaKyotoShion
- Magic symbols- Fredrick Goodman
- Paisley and Sarasa- Kyoto Shion
- Victoria and Albert museums- textile collection Wendy Mefford
- Computer graphics- rockport
- Guide to shells- Bsabelli
- Intwmational textile design-Mary Schasson
- English American textiles from 1970 to the present- Mary Schoesar Celia Rufey
- Art forms in nature-ErestHacklet
- English cotton flowers-W.H.Hageney
- The british museum book of Chinese art- Jessia Rawson
- Graphic ornamentation- A PEPIN PRESS DESIGN BOOK

FABRIC SURFACE TECHNIQUES(BSTD410-20)

Objectives:

At the end of this course the student will

- Know about the various methods of surface ornamentation
- Be able to select and use an appropriate method of ornamentation/ technique for a specific end product or fabric
- Be aware of various material and equipment required for a particular way of technique
- be able to judge the time and required and costing while using a particular technique of ornamentation
- be aware of advantages and limitations of using a particular technique over other methods of surface ornamentation techniques available.

Contents:

- Market survey to appreciate and understand current trends in the market (both at domestic and international level)
- Market survey to appreciate and understand current trends in the market .
- Exploring the following
- Patchwork applique
- Innovative embroidery
- Quilting, faggoting, layering, drawn, threadwork etc.
- Development of fabric swatches for each of the technique explored.
- End product (home furnishing/apparel/accessories) out of the selected techniques.

BMPD402-18

Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.
For achieving the above, suggestive list of activities to be conducted are:

Part – A

(Class Activities)

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

Part – B

(Outdoor Activities)

1. Sports/NSS/NCC
2. Society Activities of various students i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Evaluation shall be based on rubrics for Part – A & B

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

INDUSTRY INTERNSHIP

During summer break the student is required to go for internship of 45 days in any export house/design house/ designer or N.G.O.

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Fifth Semester

PATTERN MAKING & DRAPING (BSTD501-20)

Contents

Unit I

- Importance of pattern making in the industry for complete standardization .
- How to take measurements
- Understanding of various measurement charts.
- Pattern making techniques for a proper fall and fit.
- Understanding human body and co relating it with dress form and patterns.

Unit II

- Basic blocks and their importance
- Developing the first pattern for filing, recording and future reference.
- Developing working patterns.
- Developing production patterns (explaining the difference between all these)

Unit II

- Dart manipulation and their uses.
- Slashing and spreading techniques in patterns for a proper fall and fit.
- Developing patterns of
- top/Kurti/T.Shirt
- Skirt
- Combining top and skirt (Dress)

DRAPING

Unit IV

Introduction to draping Technique and process

Unit V

Drapes of fabric on

- Bed
- Curtain
- Sofa (Fully and half covered chair)
- Demonstration by a professional

IV) At the end of the module, students have to execute the end product and present the same.

Evaluation Criteria:

- Classroom Assignments.
- Creativity and Studio Skills.
- Aptitude towards learning.
- Display Skills
- Documentation Skills
- Attendance.

TEXTILE / TEXTILE PRODUCT COSTING (BSTD502-20)

Objective

Unit I

1. To make students understand costing concepts and competitive edge in the market scenario by means of cost control.
2. Costing- definition, advantages, importance
3. Cost terminologies- bonded warehouse, CIF, FOB, counter sample, duty, overseas shipping, storage cost, air freight, air express etc

Unit II

4. Merchandising mathematics- mark ups and mark downs-
5. Costing factor- rent, labour, operating cost, utilities, capital depreciation

Unit III

6. Various departments of costing- administration, sales, production etc
7. Elements of cost - direct and indirect.
8. Costing of a garment- shirt and trouser./Home furnishing

WOVEN DESIGN PROJECT (PRACTICAL(BSTD503-20))

Objective

To study explore and experiment with new design ideas for actual commercial product.

Contents

The students are required to develop the range of woven design fabric /swatches with the following outline.

- Taking inspiration from the theme make Color board and Mood Board.
- Making concepts and layouts on the paper.
- Conversion of the paper designs into actual Woven samples using various Weaving techniques

End product tapestry/home furnishing range of woven fabrics

Jacquard /dobby

- To design a pattern using both technique
- To enlarge the design on graph paper
- Punching of the design on hard sheet
- Actual production of the design on fabric

Evaluation Criteria

- Classroom Assignments.
- Creativity and Studio Skills.
- Aptitude towards learning.
- Display Skills
- Documentation Skills
- Attendance.

PRINT DESIGN PROJECT(BSTD504-20)

Objectives:

- To construct a professional Design brief of printed design.
- To introduce the use of varied art media to develop concepts and art works.
- To develop a keen observation of color and print and weave trends for a particular year/season/and country to develop a forecast for printed textiles for interiors and fashion.
- To develop theme and mood boards and color palettes.
- To get a clear understanding of designing a coordination collection.
- To get a clear understanding of the use of the color and color ways.
- To be able to present a collection of print design in repeats.
- To Illustrate the chosen print design collection in an interior or show its use when the collection is for fashion textiles.
- To present all the print work in a state exhibition so as to develop team spirit and professionalism

Contents

UNIT I

- Developing a design brief
- Understanding the design process

UNIT II

- Forecast research
- Developing a sketchbook
- Making a mood board
- Developing a color board and a color palette

UNIT III

- Experimental use of mix media and various techniques to develop concepts including hand printing on fabrics
- Developing a collection of prints and putting the designs in repeats ready for Printing
- Understanding the printing process in the industry
- Using CAD for working out color separations and permutation of various repeats of designs

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- Making illustrations showing end use of the product
- Planning and execution of an exhibition of print collection at the time of assessment

References

- The grammar of ornament-Owen Jones Dover publications in NY
- Authentic Victorian decoration and ornamentation, Christopher Dresser Dover publication IncNY
- Position design Kyoto Shain
- ART Nouveau Patterns and designs. R.Beau Clair
- Art deco- the European style- S.morgon,Arlington Press
- Tricia Guild New Soft furnishings David Montgomery
- Abstract pattern Kyoto Shion
- Floral ornament- booking international
- Silk Painting Workshop- Jane Venables
- Ethnic AsiaKyotoShion
- Magic symbols- Fredrick Goodman
- Paisley and Sarasa- Kyoto Shion
- Victoria and Albert museums- textile collection Wendy Mefford
- Computer graphics- rockport
- Guide to shells- Bsabelli
- Intwmational textile design-Mary Schasson
- English American textiles from 1970 to the present- Mary Schoesar Celia Rufey
- Art forms in nature-ErestHacklet
- English cotton flowers-W.H.Hageney
- The british museum book of Chinese art- Jessia Rawson
- Graphic ornamentation- A PEPIN PRESS DESIGN BOOK

PROMOTIONAL PRODUCT DEVELOPMENT (BSTD505-20)

Objective

- To develop an understanding about Promotion and Advertising.To design various Promotional techniques for apparel/textile store or event.

Course Content

Unit I

- Promotion and its objective
- Advertising and its type
- Advantage and disadvantage of newspaper advertising

Unit II

- Mechanics of building ads.
- Layout-purpose and qualities
- Logo, headlines, typography
- Different kinds of Ad's brochure, catalogue , billboard, magazine
- Advertisements

Project :

Students are required to design a complete range of Advertisement material along with various other products which help in the promotion of the defined end product.

Evaluation Criteria

- Classroom Assignments.
- Creativity and Studio Skills.
- Aptitude towards learning.
- Display Skills
- Documentation Skills
- Attendance.

NED GRAPHICS (BSTD506-20)

Objectives:

- To introduce to the students the basics of using the Jacquard Pro and Easy Map suite in ned graphics.

Contents:

- Jacquard Pro: Ned Graphics Jacquard Pro is where the most complex jacquard fabrics can be treated, coloured, estimated , calculated , simulated and sent straight to your looms.
- Easy Map Suite: Easy Map Creator allows you to process existing product photographs so that different design and colour options can be draped and realistically presented.

Evaluation Criteria:

- Classroom Assignments
- Understanding the usage of the tools
- Documentation
- Attendance

TREND FORECAST (BSTD507-20)

Course Objective:

- Fashion Forecasting creates a competitive advantage for companies. Students study the theories of fashion change; how to research, organize, analyze, and integrate information to sort hype from directional signals; and to apply your trend Knowledge into a forecast presentation.

Contents

Unit I

- At the conclusion of this course the student should be able to...
- Analyze trends and trend cycles to predict future trends
- Perform market research for the development of trend analysis
- Demonstrate knowledge of current designers and brands
- Research current designers and brands

Unit II

- Develop a personal strategy for staying informed about the apparel industry
- Identify the target market and assess customer needs
- Research the target market for a design solution
- Communicate creative concepts effectively
- Communicate visually through roughs, boards, and illustrations
- Communicate using industry standard terminology

Unit III

- Utilize the research process to recognize past and present influences and forecast future influences
- Analyze and synthesize data, and draw conclusions
- Demonstrate creative thought process
- Compose data to support analysis
- Present data to draw conclusion

Evaluation Criteria

- Classroom Assignments.
- Creativity and Studio Skills.
- Aptitude towards learning.

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- Display Skills
- Documentation Skills
- Attendance.

INDUSTRY INTERNSHIP BSTD508-20

During summer break the student is required to go for internship of 45 days in any export house/design house/ designer or N.G.O.

BMPD 502-18

Mentoring and Professional Development for Documenting Craft

The objective of mentoring will be development of:

Overall Personality

Aptitude (Technical and General)

General Awareness (Current Affairs and GK)

Communication Skills

Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.

For achieving the above, suggestive list of activities to be conducted are:

Part – A

(Class Activities)

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

Part – B

1. (Outdoor Activities)
2. Society Activities of various students chapte i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Evaluation shall be based on rubrics for Part –A & B Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

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SIXTH SEMESTER

ART PORTFOLIO (BSTD 601-20)

Course Objectives :

- The art portfolio is an expression of a graduating student's creativity, design/ability, technical expertise and illustration and presentation skills. It should exhibit the student's inclination towards a particular segment of the industry by identifying the target customers, design requirements and pricing. It should ideally comprise of 30-35 sheets keeping the following points in mind.

UNIFORM FORMAT : It is important to keep all the sheets of the same size to maintain visual continuity. Sheets should be grouped separately and systematically either horizontally or vertically. This ensures uniformity of presentation. The presentation of the portfolio depends on the contents and also on your layouts. (Too much of fragmentation of a single sheet can be distracting) The end result should look very neat and professional befitting NIFT graduates.

- Statement of your design philosophy to clarify your attitude towards fashion.
- Bio-data
- The portfolio must include.
- Page of contents
- Each separate project should include inspiration sheet/story board and colour chart with appropriate swatches.
- Client profile and indication of the market /country.
- Give a name/theme to each project.
- Flat working drawings, detailed magnification and specification sheets showing your technical strength are vitally important . Line planning, fabric indications, fabric consumption, detailed measurement charts etc are all essential . These are to be used in conjunction with croquis .
- Design development sheets/design journal to show the creative process and /or commercial feasibility
- Stylised illustration may be included as a separate segment.
- There should be inclusion of designs for men, women and children. However
- your natural creative bent of mind should find expression through specific design and market orientation.
- At least one collection should have a touch of the Indian ethos. This is to be based on

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innovative fabric combinations, surface texture and ornamentation. It is very important that the designs and embroidery motifs be original.

- 2 sheets each on your craft documentation and internship project is absolutely mandatory. It is very important to show your design applicability for the craft.
- Any other creative graphic work ,photography done by you, should be included.

Intellectual Property Right AND EDP (BSTD602-20)

Contents:

UNIT I

- Basic Principles of Intellectual Property Rights
- Focus of this paper would be on the following areas:
- Philosophical Aspects of Intellectual Property Laws
- Basic Principles of Patent Law
- Patent Application procedure
- Drafting of Patent Specification
- Understanding Copyright Law
- Basic Principles of Trade Mark
- Basic Principles of Design Rights

UNIT II

- International Background of Intellectual Property

UNIT III

- Ownership and Enforcement of Intellectual Property Rights
- Patents- Objectives, Rights, Assignments, Defenses in case of Infringement 2. Copyright- Objectives, Rights, Transfer of Copyright, work of employment Infringement, Defenses for infringement.
- Trademarks-Objectives, Rights, Protection of goodwill, Infringement, Passing off, Defenses.
- Designs-Objectives, Rights, Assignments, Infringements, Defenses of Design Infringement
- Enforcement of Intellectual Property Rights - Civil Remedies, Criminal Remedies, Border Security

UNIT IV

- Measures
- Practical Aspects of Licensing -Benefits, Determinative factors, important clauses, licensing clauses.

UNIT V

Entrepreneurship: Concept and Definitions, Entrepreneurship and Economic Development, Classification and Types of Entrepreneurs, Entrepreneurial Competencies, Factor Affecting

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Entrepreneurial Growth -EDP Programmes, Entrepreneurial Training, Traits/Qualities of an Entrepreneurs,.

UNIT VI

- Small Enterprises and Enterprise Launching Formalities : Definition of Small Scale, Rationale, Objective,
- Scope, Role of SME in Economic Development of India, SME, Registration, NOC from Pollution Board,
- Machinery and Equipment Selection, Project Report Preparation, Preparing Project Report, Project Planning and Scheduling.

Suggested Readings:

1. D.F. Kuratko and R.M. Hodgetts: Entrepreneurship - Theory, Process and Practice, Thomson Press.
2. J.S. Saini: Entrepreneurship and Small Business in India, Himalaya Publishing House.
3. P. Charantimath: Entrepreneurship Development: Small Business Enterprises, Pearson Education.
4. Vasant Desai: Small-Scale Industries and Entrepreneurship, Himalaya Publishing House.
5. Otes David: A Guide to Entrepreneurship, Jaico Books Publishing House.
6. D.H. Holt: Entrepreneurship - New Venture Creation, Prentice Hall India.
7. A. Kaulgud: Entrepreneurship Management, Vikas Publishing House.
8. B. Theduri: Entrepreneurship Development - An Analytical Study, Akansha

1. Evaluation Criteria

- Classroom Assignments.
- Creativity and Studio Skills.
- Aptitude towards learning.
- Display Skills
- Documentation Skills
- Attendance.

ADVANCE DEGREE PROJECT (BSTD603-20)

- Each student will undertake diploma project in the sponsoring industry during Semester VI.
- Each project will comprise of 3 collections (in one company) .These collections can be Woven, Printed ,Embroidered, Knitted or Surface development for home furnishing sector or apparel sector.
- Each collection should start from concept to production and finishing stage under the guidance of an industrial as well as faculty mentor.
- Students will be documenting the collections and will exhibit the same at their annual exhibition-
“SUVAYAN”

BMPD 602-18

Mentoring and Professional Development for Documenting Craft

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities. For achieving the above, suggestive list of activities to be conducted are:

Part – A
(Class Activities)

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

Part – B
(Outdoor Activities)

1. Sports/NSS/NCC
2. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Evaluation shall be based on rubrics for Part –A & B Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.