# Scheme & Syllabus of

## Bachelor of Science in Fashion Design Knits (B.Sc. FDK) Batch 2018 onwards

# Bachelor of Science in Knitwear Design and Technology (B.Sc. KDT) Batch 2021 onwards



By

**Board of Study Fashion Technology** 

Department of Academics IK Gujral Punjab Technical University

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#### Bachelors of Science in Fashion Design Knits (B.Sc. FDK):

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.

#### Courses & Examination Scheme: <u>First Semester</u>

Course Code	Course Type	Course Title	Load Allocations		Distri		Total Marks	Credits	
			L	Т	Р	Internal	External		
BFDK101-18	Core Theory	Elements of Fashion	2	0	0	20	30	50	2
BFDK102-18	Core Theory	Elements of Textiles	2	0	0	20	30	50	2
BFDK103-18	Core Practical/Laboratory	Elements of Design-1	0	0	6	60	40	100	2
BFDK104-18	Core Practical/Laboratory	Introduction to Knitting Skills (Knitted Structures)	0	0	3	60	40	100	2
BFDK105-18	Core Practical/Laboratory	Basics of Computers	0	0	3	60	40	100	2
BFDK106-18	Core Practical/Laboratory	Introduction to Garment Construction	0	0	3	60	40	100	2
BFDK107-18	Core Practical/Laboratory	Basic Sketching	0	0	3	60	40	100	2
	Ability Enhancement Compulsory Course (AECC)-I	English	1	0	0	20	30	50	1
	Ability Enhancement Compulsory Course (AECC)	English Practical/Laboratory	0	0	2	30	20	50	1
	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules	3	0	0	20	30	50	3
HVPE102-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules (Lab/ Seminar)	0	0	1	25	**	25	1
BMPD102-18		Mentoring and Professional Development	0	0	1	25	**	25	1
	TOTAL		09	0	18	310	240	800	21

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

## Second Semester

Course Code	Course Type	Course Title      Load Allocations      Marks        Distribution      Distribution	Load Allocations					Total Marks	Credit s
			L	Т	Р	Internal	External		
BFDK201-18	Core Theory	Techniques for Circular Knitting	2	0	0	40	60	100	2
BFDK202-18	Core Theory	Dyeing and Printing Techniques	2	0	0	20	30	50	2
BFDK203-18	Core Practical/Laboratory	Computer Aided Design (CAD)	0	0	3	60	40	100	2
BFDK204-18	Core Practical/Laboratory	Knitting Skills-II	0	0	3	60	40	100	2
BFDK205-18	Core Practical/Laboratory	Fashion Illustration-I	0	0	3	30	20	50	2
BFDK206-18	Core Practical/Laboratory	Elements of Design-II	0	0	3	60	40	100	2
BFDK207-18	Core Practical/Laboratory	Pattern Making-I	0	0	3	60	40	100	2
BFDK208-18	Core Practical/Laboratory	Garment Construction -I	0	0	3	60	40	100	2
BFDK209-18	Core Practical/Laboratory	Photography	0	0	3	30	20	50	2
	Ability Enhancement Compulsory Course (AECC) -III	Environmental Science	2	0	0	20	30	50	2
BMPD202-18		Mentoring and Professional Development	0	0	1	25		25	1
	Г	TOTAL	06	00	22	565	460	825	21

## **Third Semester**

Course Code	Course Type	Course Title		Load Allocations		Distri	arks bution	Total Marks	Credits
			L	Т	Р	Internal	External		
BFDK301-18	Core Theory	Fundamental of Apparel Production	2	0	0	40	60	100	2
BFDK302-18	Core Theory+ Practical	Traditional Indian Textiles & Embroideries	1	0	2	60	40	100	2
BFDK303-18	Core Practical/Laboratory	Yarn Craft	0	0	3	30	20	50	2
BFDK304-18	Core Practical/Laboratory	Computer Aided Design (CAD)II	0	0	3	60	40	100	2
BFDK305-18	Core Practical/Laboratory	Fashion Illustration-II	0	0	3	30	20	50	2
BFDK306-18	Core Practical/Laboratory	Garment Construction (Kids wear)	0	0	3	60	40	100	2
BFDK307-18	Core Practical/Laboratory	Design Process	0	0	3	60	40	100	2
BFDK308-18	Core Practical/Laboratory	Pattern Making (Kids wear)	0	0	3	60	40	100	2
BFDK309-18	Core Practical/Laboratory	Industry Internship (Flat Knits)	0	0	3	60	40	100	2
BMPD302-18		Mentoring and Professional Development	0	0	1	25		25	1
	Т	TOTAL	04	00	26	335	240	825	21

## **Fourth Semester**

Course Code	Course Type	Course Title	Load Allocations		Load Allocations		arks bution	Total Marks	Credits
			L	Т	Р	Internal	External		
BFDK401-18	Core Theory	Apparel Marketing and Merchandising	2	0	0	40	60	100	2
BFDK402-18	Core Theory	Production Planning and Control	2	0	0	40	60	100	2
BFDK403-18	Core Practical/Laboratory	Fashion Illustration-III	0	0	3	30	20	50	2
BFDK404-18	Core Practical/Laboratory	Fabric Studies	0	0	3	30	20	50	2
BFDK405-18	Core Practical/Laboratory	Draping for Knits	0	0	3	60	40	100	2
BFDK406-18	Core Practical/Laboratory	Fabric Surface Techniques	0	0	3	30	20	50	2
BFDK407-18	Core Practical/Laboratory	Pattern Making -Men's Wear	0	0	3	60	40	100	2
BFDK408-18	Core Practical/Laboratory	Garment Construction-Men's wear	0	0	3	60	40	100	2
BFDK409-18	Core Practical/Laboratory	Computerized Knitting Manufacturing Techniques-I	0	0	3	60	40	100	2
BMPD402-18		Mentoring and Professional Development	0	0	1	25		25	1
	T	OTAL	05	00	24	325	250	775	23

## Fifth Semester

Course Code	Course Type	Course Title	Load	Load Allocations				Distri	arks bution	Total Marks	Credits
			L	Т	Р	Internal	External				
BFDK501-18	Core Theory	Fashion retailing	2	0	0	20	30	50	2		
BFDK502-18	Core Theory	Processing Techniques for Knits	2	0	0	40	60	100	2		
BFDK503-18	Core Theory	Appreciation of Western Costumes	2	0	0	40	60	100	2		
	Core Practical/Laboratory Core Theory	Research Methodology & Documentation	0	0	3	40	60	100	2		
BFDK505-18	Core Practical/Laboratory	Pattern Making for Lingerie	0	0	3	60	40	100	2		
BFDK506-18	Core Practical/Laboratory	Computerized Knitting Manufacturing Techniques-II	0	0	3	60	40	100	2		
BFDK507-18	Core Practical/Laboratory	Grading Techniques	0	0	3	30	20	50	2		
BFDK508-18	Core Practical/Laboratory	Trend Forecast	0	0	3	30	20	50	2		
BFDK509-18	Core Theory +Practical	Industry Internship(Circular Knits)	0	0	3	60	40	100	2		
BMPD502-18		Mentoring and Professional Development	0	0	1	25		25	1		
	Т	OTAL	10	03	18	255	220	775	23		

## Sixth Semester

Course Code	Course Type	Course Title	Load	Load Allocations				Load Allocations Marks Distribution			Total Marks	Credits
			L	Т	Р	Internal	External					
BFDK601-18	Core Theory	Intellectual Property Rights	2	0	0	40	60	100	2			
BFDK602-18	Core Practical/Laboratory	Art Portfolio	0	0	3	60	40	100	2			
BFDK603-18	Project	Advance Design Project	0	0	6	240	160	400	6			
BMPD502-18		Mentoring and Professional Development	0	0	1	25		25	1			
	T	OTAL	01	00	09	145	80	625	11			

# **SEMESTER-1**

#### BFDK101-18

#### **ELEMENTS OF FASHION**

#### **Objectives:-**

• To make the students understand what fashion is to also make them aware about the fashion terminology, classification of components and the influences of fashion. This course also aims to provide an insight to the covered of fashion from a designers point of view.

#### Syllabus:-

- Introduction to fashion :
  - Fashion terminology
  - Fashion origin
  - Fashion cycle and seasons
- Influence on fashion: Social, cultural, economic, political, education, technological etc.
- Classification of apparel:-according to garment type sports, classic, bridal, maternity etc.
- According to price designer down to budget.
- According to fabrics woven, knits, leather
- Components of fashion silhouette, details, color, fabric, texture, seams, trims.
- Fashion forecasting
- Study of markets and segments
- Designers International / Domestic

#### BFDK102-18

#### **ELEMENTS OF TEXTILES**

#### **Objectives**

- To understand the importance and purpose of various segments of the textile industry.
- To understand basic textile terminology.
- To study various filers and understand various fibers properties and relate them to the end uses.
- To understand yarn and fabrics.

#### Syllabus:-

#### UNIT-1

- Textile industry overview: Major production segments of the textile industry, basic terminology related to the industry and filers in particular.
- Textile fibers: classification, sources, properties and uses.

#### UNIT-2

- Detailed study of various natural fibers.
- Classification of manmade fibers.
- Understand the difference between natural and man made fibers.
- Study in detail the production, properties & end uses of various manmade fibers.

#### UNIT-3

- Identification of various textile fibers & blending
- Classification of yarn: yarn manufacturing, various spinning methods, yarn properties, comparison of yarns.
- Yarn numbering system

#### UNIT-4

- Fabric: various methods of fabric production, basic process of weaving, study of basic weaves, color and weave effect, production of a loom.
- Other types of textile: non woven, bonded, felted, tufted.

Practical: yarn count measurement yarn twist measurement, fabric stiffness measurement, fabric pilling measurement, fabric strength measurement, grim measurement.

#### **References:**

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

#### BFDK103-18

#### **ELEMENTS OF DESIGN-1**

#### **Objective:**

- To develop and initialize a design vocabulary, an essential tool for practicing as designers.
- To create a visual images with a greater variety of methods and material to provide unexpected excitement and solutions. To introduce 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 increase and build on acute sensitivity to the world around them.
- To develop and awareness and curiosity to notice detailing in everything they see and touch.
- To understand the basic principles of color theory, color psychology
- To develop the awareness of color as an element of visual experience.
- Role of color in structure of form and composition

#### Syllabus:

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

The basic elements that would be taught are:

#### UNIT-1

- Texture
- Line
- Form and repeat

#### UNIT-2

- Figure and Ground
- Proportion
- Balance

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 exercises dealing with the following:

#### UNIT-3

- Hue, intensity and value
- Saturated and de-saturated hues.
- Tints, tones, and shades
- Color wheel
- Simultaneous contrast

#### UNIT-4

- Change in hue, brilliance and luminosity
- Color composition and color ways.
- Use of color to evoke moods.
- Translation of colors in material and nature.

#### **INDICATIVE READING:**

- 1. Grafix-by Wolfganhageney
- 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

#### BFDK104-18

#### **INTRODUCTION TO KNITTING SKILLS (Knitted Structures)**

#### **Course Objective**

- To understand the term textiles in context of knitting
- To learn the fundamentals of warp and weft knitting machine
- To familiarize with the parts and function of knitting machine
- To develop understanding of the basic types and functions of knitting machine.
- To develop understanding of simple knits their usage and characteristics in order to setup the cam.
- To knit simple fabric structures on the manual knitting machine.

#### **Course structure:**

#### UNIT-1

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

#### UNIT-2

- Classification of weft knitted fabrics
  - Single jersey, Rib, Purl knit, Interlock, Double knit fabric, High pile knit
  - Fully fashioned knit
  - Knitted terry
  - Knitted velour
  - Knitted jacquard
  - Knitted intarsia
  - Pique fabric

#### UNIT-3

- Classification of warp knits
  - Loop structure, Identification, of warp knitted fabric
  - Tricot fabric, machine, Yarns for warp knitted fabric
  - Types and properties, Fabric characteristics
  - Raschel knit fabric, Difference between raschel and tricot fabric

## UNIT-4

- Production calculation of knitted garment
- Production methods of knitted garments
- Difference between knitted and woven fabrics

#### Nature of assignments:

- Representation of fabric interloping- visual and graphical mode on point/ graph paper.
- The depiction of drafting, their relation with knit structures.
- Practical of knitting swatches (each 7" X7") of the above knits. This process includes the generation of various textural changes in the terms of surface alteration achieved by changing material, color, and count in the design.
- The basic understanding and usage of graph for Knitting
- Understanding the principles of knitting, machine operation
- Understanding the techniques of basic knitted structures
- Knitting conventional and unconventional structures to produce at least 10 samples by using various materials as weft to achieve new effects

#### **Reference:**

1. Knitting Technology by: David J. Spencer

## BFDK105-18 Basics of Computer

#### **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:

Demonstrate an advanced knowledge of the Word Processing package, MS Office and a knowledge of how to design & create effective and structured documents like technical reports, letters, brochures, etc.,

Demonstrate the skills in the appropriate use of various features of the spread sheet package MS Excel and also to create useful spreadsheet applications like tabulated statements, balance sheets, statistical charts, business statements, etc.

Demonstrate the skills in making an effective presentation with audio and video effects using the MS-Excel package

Draw graphical pictures, flow charts, block diagrams etc., using the drawing tools available in MS Word or MS Power Point and incorporate them into documents and presentations.

#### 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.

MS-Word Section-A 1 Introduction (Introduction to MSWord, Menus, Shortcuts, Document types)

**2** Working with Documents - Opening Files – New & Existing, Saving Files, Formatting page and Setting Margins, Converting files to different formats, Importing, Exporting, Sending files to others ,Editing text documents, Inserting, Deleting, Cut, Copy, Paste, Undo, Redo, Find, Search, Replace

**3 Formatting Documents -**Setting Font Styles, Font selection – style, size, color etc., Type face – Bold Italic, Underline, Case settings, Highlighting, Special symbols, Alignments, Indents, Line space, Margins, Bullets and Numbering Setting Page Style, Formatting, Border & Shading, Columns, Header & Footer, Setting Footnotes, Inserting manual Page Break, Column Break and Line Break. Creating sections and frames, Inserting Clip arts, pictures, and other files, Anchoring & Wrapping, Setting Document Styles(Table of Contents, Index, Page Numbering, data &Time, Author etc),Creating Master Documents ,Web page

**4 Creating Tables -** Table settings, Borders, Alignments, Insertion, Deletion, Merging, Splitting, Sorting, Formula

**5 Drawing -** Inserting Pictures/Files etc. Drawing Pictures, Formatting &Editing pictures, Grouping and Ordering, Rotating

6 Tools – Word Completion, Spell Checks, Mail merge, Tracking Changes, Security

#### **7** Printing Documents

## **MS-Excel-**

**Introduction** (Spreadsheet & its Applications, Opening spreadsheet, Menus & Toolbars & icons, Shortcuts, Using help, Shortcuts)

#### 2 Working with Spreadsheets -

Opening a File, Saving Files, Setting Margins, Converting files to different formats ,Importing, Exporting and Sending files to others, Spreadsheet addressing, Rows, Columns & Cells, Referring cells and Selecting cells, Entering and Editing Data, Entering Data, Cut, Copy, paste, Undo, Redo, Find, Search & Replace, Filling continuous rows, columns, Inserting - Data, cells, column, rows & sheets, Manual breaks, Computing data (Setting Formula, Finding total in a column or row, Mathematical operations (Addition, Subtraction, Multiplication, Division, Exponentiation),Using other Formulas

#### 3 Formatting Spreadsheets –

- a. Formatting Cell, row, column & Sheet
- i. Alignment, Font, Border & shading, ii. Highlighting values, iii. Hiding/Locking Cells
- b. Worksheet -

i. Sheet Name, ii. Row & Column Headers, iii. Row Height, Column Width, iv. Visibility – Row, Column, Sheet, v. Security, c. Formatting – worksheet, i. Sheet Formatting & style - background, color, Borders & shading ,d. Anchoring objects, e. Formatting layout for Graphics, Clipart etc.,

4 Working with sheets - Sorting, Filtering, Validation, Consolidation, Subtotal

5 Creating Charts -Selecting charts, Formatting charts, label, scaling etc.

6 Using Tools - Error Checking, Spell Checks, Formula Auditing, Creating & using Templates

## **MS Power Point**

#### 1 Introduction

- a. Opening new Presentation
- b. Different presentation templates
- c. Setting backgrounds
- d. Selecting presentation layouts
- 2 Creating a presentation

- a. Setting presentation style
- b. Adding Text to the presentation

#### **3** Formatting a presentation

- a. Adding style
- b. Color, gradient fills
- c. Arranging objects
- d. Adding Header & Footer
- e. Slide Background
- f. Slide layout

#### **4** Adding Graphics to the presentation

- a. Inserting pictures, movies, tables, etc into the presentation
- b. Drawing Pictures using Draw

## **5** Adding effects to the presentation

- a. Setting Animation & transition effect
- b. Adding audio and video

## **6 Printing Handouts**

#### BFDK106-18

#### **INTRODUCTION TO GARMENT CONSTRUCTION**

#### **Course objective:**

- To understand and identify different types of machines and learn in depth their operations.
- To learn the basic act of sewing in all its facts: to outline the simple construction methods that will transform a piece of fabric into a professional looking garment.
- Knowledge is given how to select the right fabric for the right garment and understand in depth the finishes given to different parts of a garment.

#### Syllabus:

#### UNIT-1

- Introduction to industrial sewing machines & their parts.
- How to operate machine
- Exercises on paper and fabric

#### UNIT-2

- Seam and stitches
- Waist band and elastic attaching

#### UNIT-3

- Plackets
- Neck lines

#### UNIT-4

• Sleeve setting into armhole

#### Assessment

- Daily assessment would be done after each student submit his/ her work.
- Marks would be given for the level of improvement in work and submission every week.
- At the time of assessment, the technique and overall finishing of the sample or garment would be kept in mind.
- Attendance and regularity

References:-

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

#### BFDK107-18

#### **BASIC SKETCHING**

## **Course objectives**

- The marks in this instance are the drawing skills that unable a designer to evolve his or her own visual language of design.
- The objectives of the course are to increase the proficiency in drawing skills and to inculcate creative ability in the application if these acquired skills to translate as ideas for design.

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). Whereas both are relevant a third and more fundamental dimension is that of the mechanical implementation on the loom or machine. If the mind is creative but unable to make the marks that single out its uniqueness, then the design will also appear as such. The marks in this instance are the drawing skills that unable a designer to evolve his or her own visual language of design.

#### Module contents:

#### UNIT-1

- **Introduction to sketching**: introductory illustrate talk on drawing, the different media, the different marks that can be made and the fundamental principles if observation, that make for a good drawing.
- **Model drawing (figures):** in the absence of life models, to study sculptures, to familiarize the students with proportions of the human body.

#### UNIT-2

- Still life (in a studio arrangement):-handling of different media in black and white and also in color i.e. pencil charcoal, pen & ink, brush and ink water color, pastels, mixed media.
- **Drawing in an active environment:** this is develop the student skills in quick sketching (observation & fluidity of hand movements) this exercise will also assist them in acquiring discretion in selection of details of the object under study, in order to render it recognizable, yet devoid of confusing detail and therefore bold and affirmative, which will go a long way in increasing their own confidence in drawing, thereby further enhancing their skills.

#### UNIT-3

- **Perspective drawing:**-perspective drawing is an exercise to make the artist understand the various perspectives of a form like building etc. it will enable the artist to understand the depths the angles and the proportions of a form when viewed from a distance.
- Studying & copying works of the great masters:- it involves copying the sketches or other such works of the great masters lime VAN GOGH, REMBRANTD RENOIR etc. for the furthers the artist's understanding of light and introduces new ideas for exploring new media.
- Field trips to monuments & places of visual interest:-drawing of local monuments to study the perspective of defined space, angles & planes.

UNIT-4

## Sketching:

- Model drawing
- Still life
- Human figures
- Perspective drawing
- Quick sketching( doing sketches without eraser in 3-5 minutes)
- Copying the work of the great masters.
- 500 sketches in the whole semester

## 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)**

- Theory of Communication
- Types and modes of Communication

#### **Unit- 2 (Language of Communication)**

- Verbal and Non-verbal
- (Spoken and Written)
- Personal, Social and Business
- Barriers and Strategies
- 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
- 5. On Writing Well. William Zinsser. Harper Resource Book. 2001
- 6. Study Writing. Liz Hamp-Lyons and Ben Heasly. Cambridge University Press. 2006.

#### 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

HVPE101-18	Ability Enhancement Compulsory Course	Human Values, De-addiction and Traffic Rules
	(AECC)	

## **Course Objective**

This introductory course input is intended

- a. To help the students appreciate the essential complementarily 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 the rest of Existence. Such a holistic perspective forms the basis of Value based living in a natural 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 orientational input in Value Education to the young enquiring minds.

## **Course Methodology**

- 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.
- 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.
- 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.

HVPE101-18	Ability Enhancement Compulsory Course	Human Values, De-addiction and Traffic Rules
	(AECC)	

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 'l' 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 'l' and harmony in 'l'
- 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
- 17. 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 Co-existence

#### [4]

- 19. Understanding the harmony in the Nature
- 20. Interconnectedness and mutual fulfillment among the four orders of nature- recyclability and selfregulation in nature
- 21. Understanding Existence as Co-existence (Sah-astitva) of mutually interacting units in all-pervasive 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 eco-friendly 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.

#### **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

HVPE102-18	Ability Enhancement Compulsory	Human Values, De-addiction and Traffic Rules
	Course (AECC)	(Lab/ Seminar)

One each seminar will be orgnizied 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.

## **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)

- 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.

# **SEMESTER-II**

#### **BFDK201-18**

#### **TECHNIQUES FOR CIRCULAR KNITTING**

#### **Course objectives:**

• To understand & learn the fundamentals of circular knitting techniques.

#### **Course contents:**

#### UNIT-1

- Classification of circular weft knitting machines
- Types of yarn feeding devices
  - Yarn creel/ guides
  - Yarn tension controllers
  - · Yarn feeders
- Types of fabric take down mechanism.

UNIT-2

- Principles of single jersey circular knitting machines (knitting mechanism, setting points)
- Principles of interlock circular knitting machines (knitting mechanism, setting points)
- Mechanical jacquard knitting machines
  - Single jersey jacquard knitting machines (wheel / drum / mini jacquard)
  - Double jersey jacquard knitting machines (computerized jacquard knitting machines)

#### UNIT-3

- Design techniques for circular knitted fabric development
  - With four track mechanism
  - With mini jacquard mechanism
  - With pattern wheel mechanism
- Fabric structure analysis

UNIT-4

- Fabric quality analysis
- Defects in circular knitted fabrics.

## **References:**

1- Circular Knitting Technology -Spencer

#### BFDK202-18

#### **DYEING & PRINTING TECHNIOUES**

#### **Course structure:**

#### UNIT-1

- Dyeing and color technology
- Preparatory process singing, sourcing, bleaching and mercerization
- Coloring materials: dyes pigment, differences between dyes and pigments.

#### UNIT-2

- Classes of dyes- acid & pre- metalized acid dye, basic dyes, chrome/ mode rant dyes. Direct dyes, disperse dyes, nepthol, azoic and sulphur dyes.
- Types of dyeing- solution dyeing, stock, yarn, piece, constraint dyeing
- Dyeing equipments- skin dyeing, package dyeing, winch, jig and air jet dyeing
- Special types of dyeing- cross dyeing, union dyeing, tone on tone effect

#### UNIT-3

- Defects of dye and fabric
- Textile printing technology
- Methods of printing- screen printing, rotary screen printing, roller printing and heat transfer printing
- Preparation of printing paste for cotton, wool, polyester, acrylic and their blends

#### UNIT-4

- Styles of printing- direct, discharge, resist printing
- Special types of printing- burn out print, duplex print, blotch print, flocking, wrap print
- Defects of printed fabrics.

#### **REFERENES:**

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

#### BFDK203-18

## COMPUTER AIDED DESIGN (CAD)-1 (GRAPHIC DESIGN)

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

## **Teaching Techniques**

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

## UNIT-1

Lesson 1: INTRODUCTION TO ADOBE PHOTOSHOP

- 1. About Photoshop
- 2. Navigating Photoshop
- 3. Menus and panels
- 4. Opening new files
- 5. Opening existing files
- 6. Exploring the Toolbox
- 7. Exploring Panels & Menus
- 8. Creating & Viewing a New Document
- 9. Setting Preferences

Lesson 2: Working with Images and Basic Selections

- 1. Working with Multiple Images, Rulers, Guides & Grids
- 2. Adjusting Color with the New Adjustments Panel

- 3. Cropping & Straightening an Image
- 4. Adjusting Canvas Size & Canvas Rotation

## UNIT-2

Lesson 3: Getting Started With Layers and Painting Commands

- 1. Understanding the Background Layer
- 2. Creating, Selecting, Linking & Deleting Layers
- 3. Introduction to Blending Modes
- 4. Blending Modes, Opacity & Fill
- 5. Creating & Modifying Text

Lesson 4: Photo Draping In Adobe Photoshop

- 1. Photo Draping Basics
- 2. Using a Wrap tool to Photo
- 3. Photo Draping a garment/dress with Blending modes
- 4. Photo Draping a Bed

#### UNIT-3

Lesson 5: Painting In Photoshop

- 1. Using the Brush Tool
- 2. Working with Colors & Swatches
- 3. Creating & Using Gradients
- 4. Creating & Working with Brushes

Lesson 6: Photo Retouching And Color Correction

- 1. The Red Eye Tool
- 2. The Clone Stamp Tool
- 3. The Patch Tool & the Healing Brush Tool
- 4. The Spot Healing Brush Tool
- 5. The Color Replacement Tool
- 5. Adjusting Levels
- 6. Adjust Curves, Non-Destructively, with Adjustment Layers

#### UNIT-4

Lesson 7: Using Quick Mask Mode and the Pen Tool

- 1. Quick Mask Options
- 2. Painting a Selection
- 3. Saving & Removing a Selection from the Background
- 4. Understanding Paths & the Pen Tool
- 5. Creating Straight & Curved Paths
- 6. Creating a Clipping Path

Lesson 8: Working With Colors and Color Settings

- 1. Working with the Color palette
- 2. Using the Color palette
- 3. Editing Foreground color and Background color
- 4. Using the Color ramp
- 5. Setting the CMYK Color gamut
- 6. Working with the Color Picker
- 7. Using the Color Picker
- 8. Choosing Custom Colors
- 9. Using the Paint Bucket and Eyedropper tools
- 10. Using the Paint Bucket tool
- 11. Using the Eyedropper tool

Lesson 9: Creating Special Effects

- 1. Getting Started with Photoshop Filters
- 2. Smart Filters
- 3. Creating Text Effects
- 4. Applying Gradients to Text

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

#### BFDK204-18

#### **KNITTING SKILLS -2**

#### **Course objectives:**

- To understand functions of various cams of the knitting machine.
- To understand the stitch length control and its effect on the size of the fabric/ garment.
- To understand the shrinkage property of the knitted fabric.
- To understand fashioning techniques.
- To understand & calculate the GSM, CPI, WPI, loop length, stitch length, course length.

#### **Course contents:**

#### **Concept domain:**

• To understand the technicalities of knitting and their importance to achieve proper knitting & knitted fabric.

#### **Knowledge domain:**

• To explore simple & complex knitted structures towards the technical aspect.

#### Skill domain:

- Skillful handling of the yarn and stitch length.
- Material and knit manipulation for getting exact garment size.
- Efficiency and perfection in fabric sample/ garment knitting.

#### Nature of assignments:

- Theoretical calculations involving the GSM, CPI, WPI, loop length, stitch length, course length in the sample.
- Stitch notation of various structures.
- Basic explanation of knitting machine parts with the help of a previously set-up machine.
- Theoretical and graphical representation of simple/ elementary knits.
- Practical of knitting swatches (each 7" X7") of the above knits. This process includes the generation of various technical changes in the terms of techniques alteration achieved by changing material, color, and count in the design.

#### BFDK205-18

#### **FASHION ILLUSTRATION -1**

#### Syllabus :-

UNIT-1

- Basic block figure + fleshing (female form)
- Front view

UNIT-2

- Back view
- Side view
- <sup>3</sup>⁄<sub>4</sub> view

UNIT-3

- Fashion heads + garmenting detailing
- Fashion hands +garment detailing
- Fashion legs and shoes +garment detailing

UNIT-4

- Action figures + flat garment specifications
- Draping (sketch + how to measure) Trims detailing Flat garment specification (sketch +how to measure)

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#### BFDK206-18

#### **ELEMENTS OF DESIGN-II**

#### Course structure: Introduction to the basic types of designs

#### UNIT-1

- The floral(realistic or stylized flora and fauna)
- The conversational(recognizable objects)
- The traditional/ ethnic/folk (foulards, paisleys, calicos, liberty prints, lingerie, floral, little nothing prints)
- Documentary designs(documents from other cultures and periods of time)

#### UNIT-2

- Textures(organic textures, artificial effects and graphic textures)
- Damask, tapestry and other weaves/ knits(prints that seek an elaborate woven look)
- Abstract(non representational, free form)
- Geometric (based on geometric shapes)

#### UNIT-3

- Botanical (realistic representation of plants, leaves and herbs)
- Scenic (motifs in a horizontal layout suggesting a scene)
- Country fresh (printed from wood blocks carved by artisans)
- Tropical (motifs inspired by the lush tropics)

#### UNIT-4

- Patch work (derived from early American quilts)
- Neo classical (any style incorporating ancient Greek and roman forms)
- Contemporary

Understanding collections and coordinates

Understanding Engineered design

#### Skill domain:

Use of varied art media, materials, tools, techniques and their manipulation to render painted patterns and designs applicable to fashion fabrics, surfaces and related areas of applied design.

#### **Print techniques:**

- Photographic effects
- Blob
- Spatter
- Stipple
- Dry brush
- Sponges
- Textures
- Warp print or ikat effect
- Other simulated knits- stripes and plaids

- Hombre or shaded effect
- Bleach and inks
- Wax resists and wash off
- Rubber cement resists
- Poster resists and waterproof inks
- Detailing using poster paints
- Polychromatic printing
- Rendering leaves and flowers to create a 3D look.

#### **Presentation Techniques**

- Neatness and mounts
- Mounting designs
- Style number
- Color chips
- Making a portfolio

#### Nature of assignments:

- Using given geometric shapes and using the concept of repeat create geometrical patterns.
- Study nature and develop a floral motif. Choosing a motif / group of motifs express the 4 basic types of repeats to form different patterns.
- Source materials/ collect visual references for preparation of a color board. Using the concept of color identification and color mixing develop a range of color chips to depict the color palette in the color board.
- Develop designs such as plaids, stripes and checks using spatter, stipple, dry brush etc on A4 size paper.
- Using a variety of mediums and materials explore various tools and print techniques to develop innovative designs and textures.
- Make a portfolio compiling all the work done.
- Exhibition and communication.

#### BFDK207-18

# PATTERN MAKING-I

#### **Course objective:**

- To understand the standard measurement, body measurement and flat garment measurement
- To understand the industrial dress form.
- To understand symbol key.
- To learn fabric terms
- To understand pattern making tools and their uses.
- To learn written information on the pattern pieces.
- To understand pattern making processor and to understand spec sheet, pieces.
- To learn how to make pattern from sketch/ photograph
- •

# Syllabus:

#### UNIT-1

- Introduction to pattern making
- Basic skirt block
- Skirt block for knit only
- Skirt variation
- Basic bodice block
- Basic sleeve block
- Dart manipulation

# UNIT-2

- Basic block for knit only.
- T –shirt
- Polo shirt
- Neck line variation
- Collar variation
- Sleeve variation
- Tank top

UNIT-3

- Basic trouser block
- Shorts
- Bermudas
- Sweat pant
- Sweat shirt

UNIT-4

- Leggings
- Stirrup pants
- One piece dress
- Body suit

#### Method of assessment:-

• Observation of understanding on day to day basis.

# Submission:-

- Maintain proper pattern making drafting file.
- To make full proper pattern & test fit toils in the class
- Collect different style photograph/ sketch.
- Term garment

#### BFDK208-18

#### **GARMENT CONSTRUCTION TECHNIOUE**

#### **Course objectives:**

- To understand in details each stage of garment construction; cutting out; when and how to use linings and interlinings; inserting collars; cuffs and sleeves.
- To finally construction a garment with perfection in selecting the right fabrics, right pattern, and the right technique of construction.

#### Syllabus:

#### UNIT-1

- plackets and cuffs
- Neck lines

#### UNIT-2

- Pocket & Flaps
- Collars
- Tucks: pin. Spaced and cross

#### UNIT-3

- Pleats: box, inverted, knife, kick. Radiated
- Ruffles: single & double edged
- Shirring
- Gathering: by thread & elastic
- Smocking

•

### UNIT-4

- Polo shirt construction
- Trouser construction
- Sweat shirt
- One piece dress

•

#### Assessment:-

- Daily assessment would be done after students submit their work.
- Marks would be given for the level of improvement in work and submission every week.
- At the time of assessment, the technique and overall finishing of the sample or garment is kept in mind. Final assessment to be done when student presents their garment.

#### **References:-**

- 1. The art of sewing-Reader's Digest.
- 2. Step by Step Guide To Sewing Techniques-The Vogue Butterick

#### BFDK209-18

# **PHOTOGRAPHY**

# <u>Objective</u>

- To introduce the CAMERA
- To understand Film, use of various lenses
- To reproduce any masters piece.
  - -Basic working of a SLR camera
  - -Assignment on various lights effects
  - -Shooting a outdoor like Kasuli or any monument
  - Shooting "Textures" or any kind of textile to get a feel
- \* Class duration one a week in the semester all practical work has to be done by the Students.
- Recommended books for reference: All about S.L.R. 35mm camera

#### Ability Enhancement Compulsory Course

#### (EVS102-18 Environment Studies)

Course	Course	Course Title	Load		Mark Distribution		Total	Credits	
Code	Туре		Allocations					Marks	
						Internal	External		
EVS 102- 18	Ability Enhanceme nt Compulsor y 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
  - 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 landuse 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)

(8 lectures)

(8 lectures)

#### Unit 4 : Biodiversity and Conservation

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic 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.

# **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.

#### **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).
- 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.
- 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.

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

# **SEMESTER-III**

# BFDK301-18

# **FUNDAMENTALS OF APPAREL PRODUCTION**

#### **Course objectives:**

• To understand processes and machinery for circulate knit garment mass production.

# **Syllabus:**

# UNIT-1

- Seams and stitches
- Machinery for all production processes.

UNIT-2

- Fabric checking spreading
- Cutting

UNIT-3

- Stitching
- Finishing embroidery

- Printing
  - Differentiation of machines for woven & knit fabric
  - Introduction of work aids
  - Details of all production processes as listed above
  - Marker planning

# BFDK302-18

# TRADITIONAL INDIAN TEXTILES AND EMBROIDERIES

# **Objectives**:

To imitate students to the world of rich and glorious textiles and crafts of India, through an appreciation of its unfolding through the goes.

To identify the technique of textile crafts used in a region by various communities and its economics and their social implication.

To trace and examine the evolution of technique and design over a period of time.

# Syllabus:

# **Knowledge Domain**

- Study of the different traditional textiles of various regions in terms of their origin. -Socio cultural background
  - Technique / materials
  - Color / motifs
  - Evolution or change over time
  - Present scenario
- Contemporary usage

# Skill Domain:

# UNIT-1

- Students to be able to identify and implement the various techniques / stitches Used on fabric samples to imitate the traditional textiles and crafts.
- Study of the woven textiles Shawls
   Brocade- Banaras, South India, Baluchar, Paithani

Brocade- Banaras, South India, Balucha

Tangail- Jamdani

# UNIT-2

- Saris of India- woven
  - Study of printed and painted textiles
    - Kalamkari
    - Block printing (Gujrat & Rajasthan)
    - Madhubani

# UNIT-3

- Indian miniatures
- Saris of India
- Worli art
- Mata- Ni- Pachedi, Pichhwais, Pabu ji ki par
- Study of resist- dyed textiles
  - Patola, ikat, Pochampalli, Sambalpuri, Bandhani (Rajasthan & Gujrat)

- Study of carpets and floor covering
- Traditional Embroideries

# **References:**

- 1. Indian embroidery- Chattopadhyay Kamaladevi
- 2. Traditional embroideries of India- Naik, Shailaya.D
- 3. Indian embroideries: Irwin John
- 4. Traditional textiles of India- by Rustam J. Mehta
- 5. Zardozi- Gupta, C. Smita, Glittering Gold embroidery
- 6. A Phulkari from Bhatinda- Gill Harjeet Singh, Patiala

# BFDK303-18

# **COMPUTER AIDED DESIGN-II**

# **Course Objectives**

- To develop skills of drawing motifs using digital imaging and editing techniques.
- To trained students to handle different repeats for pattern creation and integrating the techniques of design

# **Objectives:**

- After completing this course, you will be able to use Corel Draw 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. **UNIT-1** Lesson-1: Introduction To Corel Draw

- 1. Exploring the CorelDraw Screen
- 2. File Management
- 3. Setting Up the Page
- 4. Moving Around and Viewing Drawings
- 5. Moving Around the Current Page
- 6. Viewing Modes
- 7. Inserting and Deleting Pages
- 8. Changing Page
- 9. Customizing Options
- 10. Using Multiple Workspaces
- 11. Customizing the Toolbars
- 12. Using Shortcuts
- 13. Saving Defaults
- 14. Setting File Backups

Lesson2: Creation and Manipulation

- 1. Drawing and Shaping Tools
- 2. Using the Freehand Tool
- 3. Drawing Lines and Poly lines
- 4. Drawing Freehand Polygons
- 5. Drawing Perfect Shapes

- 6. Reshaping Lines and Poly lines
- 7. Drawing Curves
- 8. Reshaping Curves
- 9. Drawing Rectangles
- 10. Drawing Circles
- 11. Selecting & Manipulating Objects
- 12. Selecting and Deselecting Objects
- 13. Moving Objects
- 14. Copying and Deleting Objects
- 15. Deleting Objects
- 16. Sizing Objects
- 17. Transforming Objects
- 18. Mirroring Objects
- 19. Rotating and Skewing Objects
- 20. Using Transform Docker
- 21. Outlining & Filling Objects
- 22. Eyedropper and Paint bucket Tools
- 23. The Outline Tool
- 24. Choosing Outline Thickness
- 25. Choosing Outline Colors
- 26. Using Fill Tool
- 27. Uniform Fill, Fountain Fill, Pattern Fill
- 28. Interactive Mesh fill
- 29. Copying Attributes
- 30. Setting Outline and Fill Defaults
- 31. Arranging Objects
- 32. Arranging Objects
- 33. Grouping and Ungrouping Objects
- 34. Using Guidelines
- 35. Using Dynamic Guides
- 36. Using Snap To
- 37. Aligning Objects
- 38. Group and Child Objects
- 39. Combining and Breaking Objects
- 40. Welding Objects
- 41. Using Intersection

# UNIT-II

Lesson3: Working With Special Effects And Texts

- 1. Drawing With the Artistic Media Tool
- 2. Shaping an Object with an Envelope
- 3. Extruding an Object
- 4. Blending Two Objects
- 5. Using the Lens Effect
- 6. Adding Perspectives
- 7. Using Power Clips
- 8. Applying Contours

- 9. Applying Drop Shadows
- 10. Using Interactive Fills
- 11. Applying Distortions
- 12. Using Interactive Transparencies
- 13. Applying Mesh Fills
- 14. The Text Tool
- 15. Creating Artistic Text
- 16. Editing Text
- 17. Formatting Text
- 18. Setting Text Options
- 19. Creating Paragraph Text
- 20. Choosing Paragraph Options
- 21. Setting Indents Using the Ruler
- 22. Importing Text
- 23. Using the Spell Checker
- 24. Working With Paragraph

#### **UNIT-III**

Lesson4: Working With Paragraph

- 1. Importing and Sizing Paragraph Text
- 2. Flowing Text Between Frames
- 3. Formatting Paragraph Frames
- 4. Wrapping Paragraph Text Around Objects
- 5. Applying Drop Caps
- 6. Typing Text Into Objects
- 7. Special Text Effects
- 8. Fitting Text to a Path
- 9. Converting Text to Curves
- 10. Creating Blended Text Shadows
- 11. Using Symbols and Clipart
- 12. Inserting Text Symbols
- 13. Adding Clipart
- 14. Modifying Clipart
- 15. Working With Bitmaps
- 16. What is a Bitmap
- 17. Importing Bitmap Options

# UNIT-IV

Lesson 5: Working With Colors, Fills, & Outlines

- 1. Color Palettes
- 2. Fills & Outlines
- 3. Eyedropper Tool
- 4. Smart Fill
- 5. Contour and Distortion
- 6. Perspective

- 7. Lens Effect

- Repeat and pattern
  Working with half tones
  Creating Surfaces and motifs

# BFDK304-18

# FASHION ILLUSTRATION -II

# **Course objectives:**

- Fashion illustration & its importance as tool of visual communication.
- To understand the relationship of textile with apparel
- To understand the different complexities of rendering techniques to represent the surface qualities.
- To exhibit work through contemporary layouts & suitable presentation techniques.

# **Course contents:**

# **Concept domain:**

- Illustration and its relevance to textile design
- Principles of design drawing.
- Introduction to design development.

# Knowledge domain:

- Understanding of the male/ female form.
- Articulation of the template
- Understanding of the different fabric and their drape and fall on the human body

# Skill domain:

- Developing fashion templates
- Understanding the drawing of various garments on the template
- Introduction to body and fabric rendering.

# Syllabus:

# UNIT-1

- Introduction to illustration
- Difference between male and female form
- Understanding the balance and movement of the human form
- UNIT-2
  - Articulation of the 3D template
  - Introduction to the concept of the center front, center back, side seam etc. in order to understand the technical details of the garment.
  - Use of the template
  - Dressing the basic garments
  - Draping: in context to different fabrics
  - Flat drawing techniques: flat sketch of correct proportions drawn to scale with specific details

UNIT-3

- Rendering of the body and hair
- Rendering fabrics, utilizing different mediums and colors.
- Introduction to rendering stiff fabrics

- Rendering techniques: light weight fabrics and knits
- Rendering techniques: transparent fabrics
- Rendering techniques: pattern fabrics, stripes, checks, plaids, bias plaids
- Rendering techniques: prints, : textured fabrics (men's wear suiting, tweed, tailored suiting, luster leather, sheer, quilt, lace) fur

# BFDK305-18

# GARMENT CONSTRUCTION-KIDS WEAR

# **Course objectives:**

- To understand in details each stage of garment construction; cutting out; when and how to use linings and interlinings; inserting collars; cuffs and sleeves.
- To finally construction a garment with perfection in selecting the right fabrics, right pattern, and the right technique of construction.

# Syllabus:

# UNIT-1

- Introduction of children wear
- The basic principles, sizing and size chart
- Basic bodice block (approximate age 2-6 years)

UNIT-2

- Collars, hoods
- Skirt and trousers
- Shirts

# UNIT-3

- Sports wear
- Nightwear
- Basic block for developing figure (approximate age 11-14 years)

# UNIT-4

- Developing designs
- Grading

# Assessment:-

- Daily assessment would be done after students submit their work.
- Marks would be given for the level of improvement in work and submission every week.
- At the time of assessment, the technique and overall finishing of the sample or garment is kept in mind. Final assessment to be done when student presents their garment.

# **References:-**

- 1. The art of sewing-Reader's Digest.
- 2. Step by Step Guide To Sewing Techniques-The Vogue Butterick
- 3- A Step by Step Guide to Sewing- Reader's Digest
- 4- Sewing Book A-Z -Clark Coats
- 5- The Hamlyn Book Of Soft Furnishing
- 6- Art of Sewing -Thomas Jacob

### BFDK307-18

# **DESIGN PROCESS**

#### **Course objectives:**

• To make the student aware about the entire process of designing from the concept to the final product to sharper the required/ acquired sensibilities and the process which had to the final product?

#### **Syllabus:**

• To develop an understanding of the use of design elements into the process of fabric and range development and critically analyze them.

#### **Assignments:**

UNIT-1

- Rhythm
  - Take an element, create a rhythm and develop a collection five swatches and five outfits, on that rhythm.

#### UNIT-2

- Harmony
  - Take any element or any garment detail viz. placket, pocket, buttons etc. create a collection with harmony of the chosen elements. To also develop five knitted swatches.

#### UNIT-3

# • Asymmetric

- Taking rhythm and harmony create an asymmetric collection of five knitted swatches and five garments.

#### UNIT-4

- Emphasis
  - Chose any emphasis from the garment viz. shoulder, bust, neck etc. and create a range of five garments. Also to create five knitted swatches with an emphasis of a particular thought –ideas.

# **Projects:**

- Domestic market: three weeks duration Take a shop/ boutique/ fashion house and critic/ analyse their collection in terms of rhythm/ harmony/ asymmetry/ emphasis.
- International market: three weeks duration To critic on the same lines as on the earlier project.
- Term Garment

# BFDK308-18

# KINDSWEAR PATTERN MAKING-II

### **Course objectives:-**

- To learn how to make pattern from sketch/ photograph
- To learn growth of children according to age.

#### Syllabus:-

UNIT-1

- Introduction of children wear
- The basic principles, sizing and size chart
- Basic bodice block (approximate age 2-6 years)

UNIT-2

- Collars, hoods
- Skirt and trousers
- Shirts

UNIT-3

- Sports wear
- Nightwear
- Basic block for developing figure (approximate age 11-14 years)

- Developing designs
- Grading

# BFDK309-18

**Industry Internship** 

# BFDK310-18

# YARN CRAFT

#### **Course Objectives:**

• The yarn craft course is aimed at exploration and adaptation of different fibres, yarns and other unconventional material towards hand crafted garments and accessories.

#### **Course content & methodology:**

- Imparting of basic and common techniques such as: macramé, knotting, braiding, twining, tassel ling, interlacing, knitting etc.
- 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, threads and ropes, ribbons, braids, trimmings, paper, wires, fabrics, acrylics, polythene, self reflecting foils etc.
- Conceptualization and construction of the end product which could range from an accessory to a trimming, details or a fully finished garment.

#### **Teaching Aids:**

- Slides and visuals on handcrafted surfaces, forms, objects, artifacts, accessories and garments.
- A personal file of on techniques with samples, along with a variety of material sourced.
- Resource centre to develop a relevant collection of accessories and garments.

# **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)

- 5. Sports/NSS/NCC
- 6. 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.

# **SEMESTER-IV**

# <u>BFDK401-18</u>

# APPAREL MARKETING AND MERCHANDISING

### **Course objectives:**

- To introduce the students the fundamentals of marketing keeping the fashion focus.
- To introduce the basic terminology of merchandising and trade documentation.

#### Syllabus:

UNIT-1

- Introduction to fashion marketing
  - Concept and terminology
  - 4 Ps of marketing (product, price, place, promotion)
  - Segmentation targeting and positioning analysis
  - Brand strategy
  - Consumer behavior in fashion
  - Marketing research and research methodology
  - Advertising

#### UNIT-2

- Introduction to merchandising
- Merchandising vis-à-vis marketing
- Introduction to apparel business
- Uniqueness of fashion merchandising
- UNIT-3
  - Introduction to Indian garment industry (exports/ domestics)
  - Buying houses organizing buying and selling activity
  - Merchandise buying and assortment planning

# UNIT-4

- Forecasting trends
- Range development/ product development an exercise
- Sizing standards
- Spec sheet study

#### **References:**

- Essentials of Marketing Jerome E. McCarthy & William D. Perrault
- Principals of Marketing Philip Kotler 11th edition
- Essentials of Marketing Stantan & Futrell
- Fashion Innovation & Marketing Catherine Moore
- How to sell Fashion Annalee Gold
- Fashion Marketing Janet Bohdanowicz & Lis Clamb
- Fashion from concept to consumer- Stephen Fringes

#### **Magazines** /Journals

- Journal of Fashion Marketing Management
- Business World
- Business India

- •
- Business Today Adv. & Marketing •

# BFDK402-18

# **PRODUCTION, PLANNING & CONTROL**

### **Course objectives:**

UNIT-1

- Introduction to concept of hydraulics, pneumatics and electronics their application in the garment industry
- Different systems of production
- Sub classification of systems

UNIT-2

- Concepts of work in progress time and motion studies, ergonomics and related concepts
- Order processing(Sampling, specification sheets)
- Garment analysis
- Production planning and control
  - Pre planning
  - Development of production flow charts
  - Scheduling
  - Production control charts
  - Importance of statistical data

# UNIT-3

- Information technology in garment industry
- Plant layout
- Entrepreneurship development
- Import & Export policies

- Quality assurance in garment manufacturing
  - 4 point system of fabric checking and discussion on types of defects that occur in knit fabrics
  - AQL system for garment checking discussion on defects that can occur in garments major and minor defects
  - Costs of quality
  - Introduction to ISO 9000- 4 terminology and procedures

# BFDK401-18

# **FASHION ILLUSTRATION -III**

# **Course Objective:**

- To introduce advance perspective drawings
- To develop the concept of theme based collection
- To conceptualize the textile presentations in context to home furnishing

# **Course Structure:**

# **Concept Domain:**

- Concept of inspiration, styling and creating a look
- Development of presentation techniques for theme based collections

# **Knowledge Domain:**

- Introduction to styling elements for non apparel textiles
- Further development of styles of illustration vis-à-vis non apparel textile
- Introduction to advance presentation techniques

# Skill Domain:

- Developing effective utilization techniques of the interior templates
- Developing presentation skill to communicate effectively.

# Session Plan:

# UNIT-1

- Introduction to perspective drawings: interiors and products
- Multiple point perspective
- Developing templates: room layouts, furniture etc.
- Illustration techniques: interior products, soft furnishing, curtains, bed spreads, runners etc.
- Illustration techniques: interior products, home furnishings

# UNIT-2

- Illustration techniques: interior products, home products, mats etc
- Illustration techniques: interior products, knitted interior products
- Use of different techniques using creative media like charcoal, ink crayons
- Use of different techniques creative media like watercolors, poster colors, photo colors and markers etc.
- Sourcing for visual inspirations: tools and techniques

# UNIT-3

- Introduction to thematic presentation skills
- Relevance of mood board and color board
- Basic layout formulae: axial, band, formal, grid, group, path composition
- Developing theme based stylize illustrations
- Developing thematic presentations

- Developing a thematic look in the form of a "collection" including coordinates
- Analysis of the "collection" along with reference to theme board, mood board and color board
- Complete presentation of the "collection" along with theme board, mood board and color board.

### BFDK404-18

### FABRIC STUDIES

# **Course objective:**

- Identify different fabric types.
- Relate fabric properties to specific end use.
- Handle different varieties of specially fabrics through appropriate cutting and finishing techniques.
- Identify different trims, fasteners, facings, interlinings and interfacings

# **Course content:**

UNIT-1

- Natural and man made fabrics
- Cotton fabric
- Wool fabric

UNIT-2

- Silk fabric
- Sheer fabric
- Pile fabric

UNIT-3

- Knit fabric
- Trims and fasteners

# UNIT-4

- Facing, interfacings and interlinings
- Forecast services

# Assignments and projects:

- Students submit assignments on cutting and finishing of actual fabrics fortnightly

### BFDK405-18

# **DRAPING FOR KNITS**

### **Course objectives:**

- To understand various characteristics of stretch fabrics and the control of these characteristics in designing garments.
- Terminology of draping
- Appreciation of correct fit in stretch fabrics.

# Syllabus:

UNIT-1

- Draping principals & techniques
- Measurement of dress form and tools used.
- Draping of a basic skirt using muslin.
- Classification of knit fabrics based on stretch. Types of fabrics, types of stretch.

UNIT-2

- Knit torso foundation. Draped without a dart the garment is draped in single jersey & rib 6%.
- Dress in lycra based fabric (at least 3-5% lycra).project to be finished (sleeve and neckline variation)sleeve attachment.
- Draping a leotard. Teach fundamentals of swimwear types of swimming costumes and how the garment is stitched.
- Tank top. This is to be designed, draped and stitched.

UNIT-3

- Draping of tights.
- Panty draping- discussion of types of panties and how style lines are placed on a garment.

UNIT-4

• Term garment.

# BFDK406-18 FABRIC SURFACE TECHNIOUES-1

### **Course Objectives:**

- To develop understanding of the different techniques of surface ornamentation.
- To introduce the use of varied art media, materials, tools, techniques and their manipulation to prove unexpected excitement and solutions.
- To integrate application of skills and processes involving an innovative and experimental use of mixed media and techniques.
- To examine materials and equipment required for a particular techniques of value addition
- To be able to select and use an appropriate method/ technique of ornamentation for a specific end product or fabric
- To provide insight into designing products keeping in mind the requirements and limitations of the selected techniques and its quality parameters.
- To introduce simple fabric manipulation through basic machine/ hand stitching to create surface interest.
- To learn the process of creating painted patterns and designs applicable to fashion fabric, surfaces and related areas of applied design with emphasis on material and medium exploration.
- To introduce students to the importance of planning, decision making and presentation.
- To enhance skills in visualization and communication.

# **Course Contents:**

# UNIT-1

# **Embroidery-**

- Basic stitches and their variations
- Raw materials, development of patterns and layouts and application

# UNIT-2

# **Resist Dyeing-**

- Tie & dye-techniques, equipment used, exploration of technique to develop experimental samples.
- Batik- Use of wax in different proportions to achieve varied effects, exploration of technique by using brushes, canting, blocks, scalpels, etc.

# UNIT-3

# Fabric Manipulation-

- Introduction to industrial sewing machine: machine parts, threading of upper & lower thread.
- Machine practice on paper and fabric
- Tucks: pin. Spaced and cross
- Pleats: box, inverted, knife, kick. Radiated

- Ruffles: single & double edged
- Shirring
- Gathering: by thread & elastic
- Smocking
- Exploration of different techniques to develop varied samples

# BFDK407-18

# PATTERN MAKING - MEN'SWEAR

**Course objective:** 

- To learn men's wear pattern making
- To understand measurement and sizes

Syllabus:

UNIT-1

- Shirt
- Shirt variation

UNIT-2

- Trouser
- Trouser variations

UNIT-3

- Jacket/ blazer
- Jacket/ blazer variations

• Vest

- Over coat
- Dressing gown
- Term garment

### BFDK408-18

# GARMENT CONSTRUCTION- MEN'SWEAR

#### **Course objective:**

- To have in the depth knowledge of handling different difficult and innovative fabrics
- To learn and give an unusual finish to a garment as per standards e.g. to ensure that Peter pan collar is stitched at the right place and in a right manner

# Syllabus:

# UNIT-1

• Vest coat construction

# UNIT-2

- Mock shirt
- Cardigan

# UNIT-3

• Jacket/ blazer construction

# UNIT-4

• Term garment

# References

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

### BFDK409-18

### **COMPUTERIZED KNITTING MANUFACTURING TECHNIQUES-I**

### Objectives

• To learn and understand the techniques of computer programming and knitting in STOLL & Shima Seiki Computerized knitting machine.

#### Syllabus:

### UNIT-1

- Introduction to computerized flat knitting m/c
- Introduction to computerized knitwear designing & programming

### UNIT-2

- Programming
  - Basic structures (knit/purl/tuck/miss/rib)
  - Lace structures ( single jersey/rib)
  - Drop needle structures ( single jersey/ rib)

### UNIT-3

- Plating & racking structures
- Jacquard (float/rib/birds eye and ladder back)
- Intarsia structures

### UNIT-4

- Operational principles of computerized knitting machines
- Programming & knitting with machine

# **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)

- 7. Sports/NSS/NCC
- 8. 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.

# **SEMESTER-V**

#### BFDK501-18

#### **FASHION RETAILING**

#### **Objectives:**

• The aim of this course is to be an introductory course for the students in the field of apparel marketing and merchandising retailing and export documentation and procedures.

#### Syllabus:

#### UNIT-1

#### 1- Introduction to Fashion Retailing

- Retail formats
- Types of retail operations
- Single and multiple unit stores
- Organization within a store

#### UNIT-2

#### 2- Introduction to visual merchandising

- Developing themes
- Window displays
- In store displays
- Indian rail industry
- New developments

#### UNIT-3

#### **3-** International marketing

- Basic terminology
  - Trade documentation
  - Export procedures

# 4 Trade documentation & quota policy

#### UNIT-4

- 5- Projects:
  - Designer profile
  - Retain store profile
  - Sizing standard survey
  - Brand study
  - Range development exercise
  - Case study

#### 6- Fashion & IPR

#### Books

- Essentials of Marketing Jerome E. McCarthy & William D. Perrault
- Principals of Marketing Philip Kotler 11th edition
- Essentials of Marketing Stantan&Futrell
- Fashion Innovation & Marketing Catherine Moore
- How to sell Fashion Annalee Gold
- Fashion Marketing Janet Bohdanowicz & Lis Clamb
- Fashion from concept to consumer- Stephen Fringes

#### **Magazines** /Journals

• Journal of Fashion Marketing Management

- Business World
- Business India
- Business Today, Adv. & Marketing

#### BFDK502-18

#### **PROCESSING TECHNIQUES FOR KNITS**

#### Syllabus:

- Processing techniques for cotton knits
  - Introduction
  - various methods of processing
  - basic machinery required
  - Grey house
  - Lab set-up & requirement
  - Pre dyeing process
  - Finishing
  - Checking & final packing (defects)

#### • Processing techniques for woolen knits

- Introduction
- Pre processing
- Milling
- Washing
- Steam pressing
- Calendaring
- Checking & packing

#### **References:**

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

### BFDK503-18

### **APPRECIATION OF WESTERN COSTUMES**

#### **Objectives:**

- To study the development of historic costume from prehistoric times of modern age.
- To enable students to draw inspiration for developing a potential contemporary design.
- To develop senility & understanding towards historic design.

### Syllabus:

UNIT-1

- Origin of clothing: theories & evidence
- Costume of ancient civilizations : (Mesopotamia, Egyptian, Crete, greek, roman)
- European costume during the Byzantine civilization through the middle ages

### UNIT-2

- Development of costume during the following ages:
  - Renaissance
  - Elizabethan age
  - 17<sup>th</sup>& 18<sup>th</sup> centuries: influence of puritan lifestyle, inventions and industrial upheavals and the romantic revolution.
  - Georgian age and the romantic period.
  - Victorian age: influence of elite middle class, emergence of haute couture and emancipation of women.

### UNIT-3

- $19^{\text{th}}$  to  $20^{\text{th}}$  century fashion:
  - 20<sup>th</sup> century –the start of modern dress, international influences on fashion
  - Costume of early 20<sup>th</sup> century; the Edwardian opulence, emergence of designers as dictators of fashion with reference to chanel, Vionnet, Poiret, Patou, Lanvin, Paquin, Drecoll, Redfern & Gibson.
  - The jazz Age: war and post war fashions, influence of photographers, refer Dior, Balenciaga, Molyneux, Harnelt and Schiaparelli.
  - Development of fashion in the 50s, 60s, 70s:the fashion cycle, refer valteno, Pucci, Cardin, Courreges, Mary Quant, Laura Ashley and Vivienne Westwood.

#### UNIT-4

# • Presentation:

- Research design through work of a contemporary designer.
- Personal design project: to develop a potential design inspired by historic costume.

### BFDK504-18

# **RESEARCH METHODOLOGY AND DOCUMENTATION**

#### **Course objectives:**

- To understand the basic principles of research and learn various methods available for collecting and analyzing data.
- Application of research techniques to collect & analyze data.
- To understand the basic principles of photography as a skill and medium for effective documentation and communication.
- To become aware of cultural nuances and personal interpretations in documentation.
- To learn to work in a team and to maximize individual contributions towards attaining depth in the study.
- To professionally document and present the information gathered during the field work/ industry internship by using different tools.

### **Course contents:**

#### **Concept domain**

- To employ the most appropriate methodology for the research.
- To employ the basic elements of good photography for effective communication.
- To view photo- documentation as a means of telling a shared or individual story

#### Knowledge domain:

- To know the basic elements of research methodology
- To know the various methods of qualitative research methodology.
- To know the basic elements of photography as a tool of communication and documentation.
- To know the elements of good photographic presentation and documentation.
- To explore the syntactic of the visual image in photography.
- To conduct an in depth study of a chosen industry.
- To know the various methods of qualitative research methodology.
- To know the basics of visual and written presentation techniques for documentation.
- To learn about an industry, technology applied, the materials, techniques, products, processes, economics, work culture and their interrelations

#### Skill domain:

- Effective choice and use of research techniques in relation to the research problem
- Successful data collection and analysis
- The complete use of the camera for effective results
- To understand the fundamentals of photography, operations and functions of different accessories/ equipments related to it.
- To develop a capacity to handle light and lighting equipment as an element of design.

# **RESEARCH PROJECTS AND METHODOLOGY**

### Introduction

- Literature study- types, sources and classification of literature
- Research methods- qualitative and quantitative methods
- Techniques of data generation
- Sampling techniques
- Data processing and analysis

### Photography for visual documentation

- Elements of photography- composition, lighting, camera techniques
- Subject matter and visual image- people, products, places

Photography as mode of expression-Identifying the micro cultural space:

• Take up a composite area of photography( indoor, outdoor, still, moving)

### Photo documentation and personal interpretation

- Use of graphic and written presentation techniques-interesting captions, titles, mounting, formats, etc.
- Development of a personal style through small clips which are complete in themselves but together also make an impact
- Photo exhibit / portfolio based on a theme/ story

### **Contents:**

- Interpretation of industry project brief
- Report writing
- Techniques of visual/ graphic documentation
- Interpretation of data & its representation
- Selection of appropriate method for presentation for effective communication.

#### **References:**

- Research Methods by Coopers
- Marketing Management Philip Kotler
- Marketing Research Tull& Green
- Johari Johari, J.C. (1988) Introduction to the Methods of Social Sciences. New Delhi: Sterling Publishers.
- Kothari, C.R. (1990) Research Methodology Methods and Techniques 2<sup>nd</sup> Ed. New Delhi: ViswaPrakashan
- Majumdar, Ramanuj (1991) Marketing Research Text, Applications and Case Studies. New Delhi: Wiley Eastern Edition.

#### BFDK505-18

#### PATTERN MAKING FOR LINGERIE

#### **Course objective:**

- To learn women's wear pattern making
- To understand design, measurement and sizes for lingerie.

### Syllabus:

# UNIT-1

- Introduction
- Basic block development
- Lingerie- underwear
  - Waist petticoats ( slim & straight, flared & frilled, yoked)
  - Camisole top

#### UNIT-2

- Bras
- Corset
- Bikini panties
- Variation- simplified shape

### UNIT-3

- Lingerie- nightwear
  - Night dress
  - Night shirt
  - Dressing gown
  - Bathrobe
  - Kimono

#### UNIT-4

- Beach & leisure wear
  - One piece swim suit
  - Bikini
  - Strapless bodice
  - Short blocks
  - Beach wrap & beach pajamas

### BFDK506-18

# COMPUTERIZED KNITTING MANUFACURING TECHNIQUES-II

# **Objective:**

• To understand and learn techniques integral knitting finally to develop integral garment samples.

# Syllabus:

### UNIT-1

- Textured (Dimensionally Stable) Samples
- SLITS(Horizontal & Vertical)

# UNIT-2

- Shaping
  - Narrowing (with and without wale deflection)
  - Widening (with and without wale deflection)
- Binding Off/

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- By transfer (without new yarn)
- By knitting (with new yarn)

### UNIT-3

- Open ripple structures, 3D and flaps
- Partial knitting pocket, placket, V- neck, collar

### UNIT-4

• World Traditional Knitwears

#### BFDK507-18

#### **GRADING TECHNIQUES**

#### **Objective:**

This course aims to make the student proficient at grading the pattern to different size both by track grading and nested grading.

#### Syllabus:

- 1- Contents and principles of grading
- 2- Sizing & survey of market
- 3- Grading option and areas
- 4- Body analysis
- 5- Grading terminology
- 6- Introduction to nested & track grade

#### **Practical application**

- Bodice block
- Skirt block
- Sleeve block
- Princes bodies
- Torso block
- Shirt sleeve with cuff
- Flared skirt
- Trouser
- Collars
- Jacket
- Style grade
- Grading with specification sheet

#### Note

All assignment should be done for three sizes up & 1 size down

Accuracy of pattern and neatness of execution are of great importance Industrial method of pattern should also be taught.

#### BFDK508-18

# TREND FORECAST

# **Course Objectives :**

- To make the students understand and learn the intricacies of the forecasting process of the Fashion Cycle. The global forecast trends will be taught with great detail and depth through various forecast journals, magazines like Promo style etc. Student will be given exhaustive assignments to learn and interpret the Fashion forecast
- Foundation for Fashion Forecast Studies Students will be exposed to the various terms, its relationship & the Importance of Decade study.

# **Content:**

- **Trend forecasting -** What, Why & How Students will be Exposed to various tools, sources & methodologies applied to study the trend forecast. Visual Presentation of Trend Forecast by various Trend forecast agencies & its interpretation.
- Trend forecasting What, Why & How(Visual Presentation + Interactive Assignments)
- Visual presentations & Interactive Learning Sessions. A visual Presentation of Past many years trends, SS16 & SS17 ramp shows of Indian &International Designers, Up to date street fashion Street Fashion in Fashion Capital across the world.

#### **Market Research**

- Students will be given a brief to carry out detail market research.
- Trend Analysis & Presentation

The students will apply their knowledge & skills they acquired during the module and on the basis of their research they will do analysis and come up with the New Trend in their given field or area.

# BFDK509-18

INTERNSHIP (6 WEEKS) - CIRCULAR KNITS

# **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)

- 9. Sports/NSS/NCC
- 10. 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.

# **SEMESTER-VI**

#### BFDK601-18

#### INTELLECTUAL PROPERTY RIGHTS

- 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
- International Background of Intellectual Property

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

#### BFDK602-18

# <u>ART PORTFOLIO –(DIGITAL PRESENTATION)</u>

#### **Course Objectives :**

The art portfolio is an expression of a student's creativity, design/ability, technical expertise and illustration and presentation skills. It should exhibit the students inclination towards and 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 continually. 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 NIIFT 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 projects.
  - 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 croquls.
  - Design development sheets/design journal to show the creative process and /or commercial feasibility.
- Stylized 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 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.

- In addition to this photographs and /or slides of other creative design activities should be included so to exhibit your versatility. These may include photographs of prototype development in the case of term garment, freelance assignments or competitive shows like Air France, Smirnoff, I.W.S etc. You could leave space for the final design collection photographs, which would be included later. Any publications in newspapers or magazines may be included in original.
- The expression of computer application is very important.

# BFDK603-18

## DESIGN COLLECTION/RESEARCH PROJECT

The project will be based upon the market demand or related to any problem from the Knitwear Industry

# **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)

- 11. Sports/NSS/NCC
- 12. 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.