Courses & Syllabus

Part 2

March 2025

LBS CENTRE
FOR SCIENCE AND TECHNOLOGY
(A Government of Kerala Undertaking)

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Summary of Courses

Sl. No	Title of the Course	Course Code	Duration in (hrs)	Period of Course in Months	Eligibility	Fees (Rs)
1	Diploma In Hospital Administration	DHA	1000	1 year (2 Semester)	Plus Two	60,000
2	P.G Diploma In Hospital Administration	PGDHA	500	6	Degree	45000
3	Diploma in Indian Art	DIA	500	12	10th and above	35000
4	Diploma on Kerala Mural Painting	DKMP	500	12	10th and above	35000
5	Certificate on wall art (acrylic Painting)	CWA	215	5	10th and above	12500
6	Certificate on Fine Art Level 1	CFA L1	85	2	5th and above	6000
7	Certificate on Fine Art Level 2	CFA L2	85	2	5th and completion of LBS Fine Art Level 1.	6000
8	Certificate on Fine Art Level 3	CFA L3	85	2	5th and completion of LBS Fine Art Level 2.	6000
9	Certificate on Fine Art Level 4	CFA L4	85	2	7th and completion of LBS Fine Art Level 3.	6000
10	Certificate Course on Data Analytics	CCDA	200	3	PLUS TWO	25000
11	Certificate on Sketching and Painting	CSP	60	2	5th and above	3000
12	Certificate course in Gas and Arc Welding	CCAG	120	3	SSLC	7000
13	Certificate - Construction Quality Auditing (On-Line)	CCQA	12	6days	B.TECH (Civil)	1800
14	Diploma in Construction Quality Management	DCQM	300	6	B.TECH (Civil)	5000
15	Advanced Diploma in Computer Aided Fashion Designing	ADCAFD	1500	12	Any Bachelor's Degree	40000
16	Diploma in Fashion Technology	DFT	3000	24 Months (2 Years) [4 Semesters]	SSLC & Above	70000/- [35000 per year]
17	Certificate - LED Display Board	CLDB	70	2	SSLC	5000
18	Certificate- Solar Installation Technician	CSIT	70	2	SSLC	5000

LBS SKILL CENTRE

CourseTitle	**DIPLOMA IN HOSPITAL ADMINISTRATION**
Abbreviation of Course Title	DHA
Duration of the course in Hours	1000 Hrs
Duration of the course in Months	1 year (2 Semester)
Course Fees	60,000
Eligibility	+2

About the Course

A course in hospital administration typically covers a wide range of topics related to managing healthcare facilities efficiently and effectively.

Objectives of the course

To introduce general principles of management and their relevance to hospital administration and to bring awareness about the skills need for translating management into Action.

Scheme of Study

Course Code	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
DHA	**DIPLOMA IN HOSPITAL ADMINISTRATION**	800	200	1000

SEMESTER I

Sub Code	Subject Name	Internal Mark	External Mark	Total Mark
DHA I	General English	20	80	100
DHA II	Management	20	80	100
DHA III	Hospital Administration I	20	80	100
DHA IV	Information Technology & Hospital Information System	20	80	100
Total Marks		**80**	**320**	**400**

SEMESTER II

Sub Code	Subject Name	Internal Mark	External Mark	Total Mark
DHA V	Hospital Administration II	20	80	100
DHA VI	Human Resource Management	20	80	100
DHA VII	Organizational Behaviour	20	80	100
DHA VIII	Managerial Communication	20	80	100
DHA IX	Project Work based on Organizational Study	50	50(Viva)	100
Total Marks		**100**	**400**	**500**

Exam Fee: Semester I - 500 + GST
Semester II - 500 + GST

Syllabus of the course

SEMESTER I

PAPER I – GENERAL ENGLISH

- Types of Sentences and Interchange of Sentences.
- Different Parts of Speech.
- Articles – The Definite and the Indefinite Articles.
- Uses of Primary and Modal Auxiliary Verbs
- Tag Questions
- Tenses
- Prepositions
- Direct and Indirect Speech
- Active and Passive voice

PAPER II – MANAGEMENT

- History and growth of management concepts
- Evaluations of management theories
- Functions & Principles of management
- Fundamentals of planning & Decision making steps in planning, nature and process of managerial decision making.

PAPER III – HOSPITAL ADMINISTRATION I

- Introduction to hospital.
- Hospital: Definition, History of hospitals, Types and classification of hospitals.
- Different departments of hospital, , general principles of hospital organization, Hospital organizational Functions,
- Hospital organizational structure. Hospital as system, hospital as a part of social system,
- Hospital and Community.
- Hospital Administration as a specialty: Role and function of hospital administrator, hospital as an organization, profile of hospital administrator, Role of hospital administration, Skill of Hospital Administrator
- Health care System in Developed and Developing countries, Health Systems, Levels of health care.

HOSPITAL PLANNING

- Introduction: Hospital planning, Principles of planning – Regionalization, Hospital planning team,
- Planning process, Hospital zone,

Planning, designing, organization and management of chlinal & therapeutic services

- Outpatient department
- Accidents and Emergency service department,
- Inpatient department,
- Operation Theatre
- Intensive care unit

- Physical medicine and Rehabilitation services.
- Laboratory services

- Radiology services
- Pharmacy
- Dialysis unit.

PAPER IV – INFORMATION TECHNOLOGY & HOSPITAL INFORMATION SYSTEM

- Basics of computer, components of computer,
- Basic concepts about computer hardware and software – Application of computer in hospitals.
- Office automation software – MS Office – MS Word – Spread Sheet software- MS Excel.
- Computer network and internet.
- Hospital Information system – Functions, Hospital marketing Information systems – Human Resource information system.

SEMESTER II
PAPER V – HOSPITAL ADMINISTRATION II

- Public Relations in Hospital
- Ethical & Legal Issues
- Disaster Management
- Quality Assurance & NABH
- Hospital Acquired Infection
- Biomedical Waste Management
- Safety & Security in Hospital
- Medical Equipment & Medical Gas
- Lighting in Hospital
- Way Finding in Hospital

Planning and designing of Supportive and utility services:

- Central sterile supply department (CSSD)
- Linen and laundry services
- Dietary services
- House keeping
- Mortuary services
- Central store
- Medical record department
- Front office and Lobby
- Administrative care Unit
- Nursing Administration- Ward Management.

PAPER VI– HUMAN RESOURCE MANAGEMENT

- Human Resource Department in Hospital
- Concepts : definition – Scope of human resource management
- Manpower planning
- Job Analysis, Job Description, Job Evaluation, Job Enrichment.
- Performance Appraisal

PAPER VII– ORGANIZATIONAL BEHAVIOUR

- Organizational behaviour: nature – scope –meaning – significance – importance – classification. Organizational Goal- importance – individual goals – group goals
- Organizational process & structure, coordination, co-operation, motivation, leader behaviour, communication.

PAPER VIII- MANAGERIAL COMMUNICATION IN HOSPITAL

- Public Relations Department in hospital , Public relations – Scope – Tools Public relation as a catalyst for change - Public relations – With individual – Group organization
- Communication in management process, Formal – Informal – Types, Report writing – Types of report ,–– Interview – Listening and observation skills – Body language - Managing time

PAPER IX-PROJECT WORK BASED ON ORGANIZATIONAL STUDY

- Internship

Method of Evaluation

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions, every student must carry out a project assigned by the instructor and submit the report. Minimum Attendance required for the candidate to appear for examination: 75%

LBS SKILL CENTRE

CourseTitle	PG DIPLOMA IN HOSPITAL ADMINISTRATION
Abbreviation of Course Title	PGDHA
Duration of the course in Hours	500 Hrs
Duration of the course in Months	6 Months
Course Fees	45,000
Eligibility	Degree

About the Course

This course bridges the gap between theory and practice, preparing graduates for managerial and administrative roles in hospitals, clinics, and other healthcare organizations, while also serving as a stepping stone for advanced studies in healthcare management

Objectives of the course

This course is designed for graduates aspiring to build a career in healthcare management. The program aims to equip students with advanced knowledge, practical skills, and strategic insights required to effectively manage and lead healthcare organizations.

Scheme of Study

Course Code	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
PGDHA	PG DIPLOMA IN HOSPITAL ADMINISTRATION	350	150	500

Exam Fee: 1000 + GST

***Internship – 1 Month**

Sub Code	Subject Name	Internal Mark	External Mark	Total Mark
PAPER I	General Management & Human Resource Management	20	80	100
PAPER II	Hospital Administration I	20	80	100
PAPER III	Hospital Information System	20	80	100
PAPER IV	Organizational Behaviour & Managerial Communication	20	80	100
PAPER V	Hospital Administration & Planning II	20	80	100
PAPER VI	Materials, Marketing & Quality Management In Hospitals	20	80	100
Total Marks		**120**	**480**	**600**

Syllabus of the course

PAPER I

GENERAL MANAGEMENT & HUMAN RESOURCE MANAGEMENT

- History and growth of management concepts
- Evaluations of management theories

- Functions & Principles of management
- Fundamentals of planning & Decision making – steps in planning, nature and process of managerial decision making.

HUMAN RESOURCE MANAGEMENT

- Concepts : definition – Scope of human resource management
- Manpower planning
- Job Analysis, Job Description, Job Evaluation , Job Enrichment.
- Performance Appraisal

PAPER II

HOSPITAL ADMINISTRATION I

- Health: Definition and dimensions of Health. Introduction to hospital.
- Hospital: Definition, History of hospitals, changing concept of Hospitals, Types and classification of hospitals.
- Hospital as an Organization Uniqueness of Hospital Organization, principal types of hospital organization, general principles of hospital organization, Hospital organizational Functions,
- Hospital organizational structure. Hospital as system, hospital as a part of social system,
- Hospital and Community.
- Hospital Administration as a specialty: Role and function of hospital administrator, hospital as an organization, profile of hospital administrator, Role of hospital administration, Skill of Hospital Administrator, Education and research in Hospital Administration.
- Health care System in Developed and Developing countries, Health Systems, Levels of health care.

HOSPITAL PLANNING

- Introduction: Hospital planning, Principles of planning – Regionalization, Hospital planning team
- Planning process, Hospital zone, equipping a hospital.
- Planning, designing, organization and management of Clinical services:
- Outpatient department- Accidents and Emergency service department,
- Inpatient department, Operation Theater – Intensive care unit – Physical medicine and rehabilitation services.
- Diagnostic and therapeutic services: laboratory services – Radiology services – Transfusion services - Audiology and Speech pathology service – Pharmacy – Dialysis unit.

PAPER III

HOSPITAL INFORMATION SYSTEM

- Basics of computer, components of computer,
- Basic concepts about computer hardware and software – Application of computer in hospitals.
- Office automation software – MS Office – MS Word – Spread Sheet software- MS Excel.

- Computer network and internet. Hospital Information system–Functions, Hospital marketing Information systems – Human Resource information system.

LEGAL FRAME WORK FOR HOSPITALS & MEDICAL ETHICS

- Ethical & legal aspects of hospital administration, ethics introduction, Medico-legal problems: types , Consumer Protection Act and its application in hospitals,
- TransplantationofHumanOrgansAct1994
- Consumer Protection Act 1986
- The Indian Medical Council Act 1956
- The Indian Nursing Council Act 1947
- The Pharmacy Act 1948
- The Environment Protection Act 1986
- Bio-medical Waste(Management and Handling Rules 1998)
- Bonus Act1965–Employees Provident Fund Act 1952
- Employees State Insurance Act 1948
- Factories Act 1948
- Industrial Dispute Act 1947
- Minimum Wages Act 1948
- Maternity benefit Act 1961

PAPER IV

ORGANISATIONAL BEHAVIOR & MANAGERIAL COMMUNICATION

- Organizational behavior : nature – scope –meaning – significance – importance – classification. Organizational Goal- importance – individual goals – group goals
- Organizational process & structure, coordination, co-operation, motivation, leader behaviour, communication.
- Communication in management process, Formal – Informal – Types, Report writing – Types of report , Public relations – Scope – Tools – Public relation as a catalyst for change - Public relations – With individual – Group organization – Interview – Listening and observation skills – Body language - Managing time.

PAPER V

HOSPITALADMINISTRATION&PLANNINGII

- Planning and designing of Supportive and utility services:

Central sterile supply department (CSSD) – Linen and laundry services–Dietary services - housekeeping–– Mortuary services – Central store – Medical record department – Front office and Lobby–Administrative care Unit–Hospital Information system–centralized medical gas system–

disaster management – safety and security system –– Bio medical waste Management including radioactive & drug waste handling – Nosocomial Infections – Heating Ventilation and air conditioning - Lighting in Hospitals – Way finding in Hospitals.

- Planning and Management of Specialty Services

•Ophthalmology • Pediatric services • Anesthesia services • Obstetrics and gynecology services • Plastic Surgery, • Dental Services, Cardiology • Neurology • Nursing Administration- Ward Management.

PAPER VI

MATERIALS, MARKETING & QUALITY MANAGEMENT IN HOSPITALS

- Materials Management – concepts – importance in organization – relation to other administrative functions – organization of materials management department – role and functions of materials managers. Stores – Concepts of stores – Importance of stores in hospital settings – Types of stores in a hospital. Role of computers in Stores Management.
- Marketing Concept – definition – Scope - Goods & Services – Marketing process – customer relationship management (CRM), Marketing and medical ethics Marketing of Hospital and health facilities
- Quality in Health services – quality concept, Standards and Accreditations: Hospital accreditation, Models of accreditation, patient centered standards, Health care organization management standards NABH, JCAHO, JCI- ISO certification, process and steps to reach accreditation, overview of standards and benefits.

PROGRAMMS TO BE UNDERTAKEN

- Organizing Seminars
- Presentation of papers
- Group Discussions
- Assignments
- Management games
- Workshops
- Field studies

***Internship – 1 Month**

Method of Evaluation

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions, every student must carry out a project assigned by the instructor and submit the report.
Minimum Attendance required for the candidate to appear for examination: 75%

LBS SKILL CENTRE

Course Title	DIPLOMA IN INDIAN ART
Abbreviation of Course Title	DIA
Duration of the course in Hours	500 Hrs
Duration of the course in Months	1 Year
Course Fees	35,000
Eligibility	10th and above

About the Course

Interior and Exterior Art for Buildings

Objectives of the course

To create, develop and understanding the Interior and Exterior Art for Buildings, Hotels, Houses, Temples, Churches, Freelance Artist

Scheme of Study

Subject Code	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
DIA	Diploma In Indian Art	100	400	500

Syllabus of the course

Modules

1) History of Indian Art
2) Mural Painting (Kerala)
3) Tanjore Painting (Tamilnadu)
4) Madhubani (Bihar)
5) Warli (Maharashtra)
6) Mandala (India / Tibet)
7) Kangara Painting (Himachal Pradesh)

Module 1: History of Indian Art

Here are some key topics that are covered in Indian art history.

a) Indus Valley Civilization (3300-1300 BCE): Architecture, pottery, seals, and sculptures.

b) Mauryan and Post-Mauryan Art (322 BCE-300 CE): Pillars, rock-cut architecture, and sculptures.

c) Gupta Art (300-550 CE): Temple architecture, sculptures, and paintings.

d) South Indian Art (500-1500 CE): Temple architecture, sculptures, and paintings from the Pallava, Chola, and Vijayanagara empires.

e) Buddhist Art (1st century BCE-10th century CE): Stupas, sculptures, and paintings from Sanchi, Ajanta, and Ellora.

f) Jain Art (1st century BCE-15th century CE): Sculptures, paintings, and architecture from Rajasthan and Gujarat.

g) Mughal Art (1526-1756 CE): Paintings, architecture, and decorative arts from the Mughal Empire.

h) Rajput and Pahari Art (15th-19th centuries CE): Paintings and sculptures from the Rajput and Pahari schools.

i) Colonial and Modern Indian Art (18th-20th centuries CE): European influences, Bengal School, and modern art movements.

j) Iconography and Symbolism: Understanding the symbols, motifs, and iconography in Indian art.

k) Art History of Kerala, Life and works of Raja Ravi Varma

Please note that this is not an exhaustive list, and specific topics may vary depending on the exam or course.

Module 2: Mural Painting (Kerala)

a) Introduction to Kerala Mural Painting / History.
b) Preparing the Canvas.
c) Colour Making Process.
d) Themes and Styles.
e) Clothing and ornament modelling.
f) Anatomy of figures.
g) Painting on Canvas.

Module 3: Tanjore Painting (Tamilnadu)

a) Board preparation. The first step towards making of tanjore painting starts from board preparation, where we prepare the surface for the painting.
b) Tracing / Drawing
c) Stone fixing.
d) Base mukk work.
e) Brush design work.
f) Fixing of gold foil.

Module 4: Madhubani (Bihar)

Here are some key points to include while teaching Madhubani painting:

a) Introduction to Madhubani painting:
- History and origin
- Significance and cultural importance
- Unique features and characteristics

b) Materials and tools:
- Handmade paper or cloth
- Natural dyes and pigments (e.g., plant-based, mineral-based)

- Brushes (natural fibers like bamboo or hair)
- Pens (e.g., bamboo, nib)

c) Preparation of the surface:
- Cleaning and smoothening the paper or cloth
- Applying a base coat (usually a natural adhesive like gum arabic)

d) Design and composition:
- Understanding traditional Madhubani designs and motifs (e.g., geometric, floral, animal)
- Importance of symmetry and balance
- Using stencils or freehand drawing

e) Painting techniques:
- Using bold lines and bright colors
- Creating intricate patterns and designs
- Applying multiple layers of color

f) Symbolism and iconography:
- Understanding the symbolism behind various motifs and designs
- Using symbols to convey messages and tell stories

g) Color theory and significance:
- Understanding the significance of colors in Madhubani painting
- Using colors to depict emotions, mood, and atmosphere

h) Finishing techniques:
- Applying a protective coating (e.g., varnish, lacquer)
- Enhancing the painting with additional details or embellishments

i) Preservation and care:

Module 5: Warli (Maharashtra)

a) Introduction to Warli painting:
- History and origin
- Significance and cultural importance
- Unique features and characteristics

b) Materials and tools:
- Traditional materials: rice paste, bamboo brushes, and natural dyes
- Modern materials: acrylic paints, canvas, and brushes

c) Preparation of the surface:
- Cleaning and smoothening the surface
- Applying a base coat (usually a mixture of rice paste and water)

d) Design and composition:
- Understanding traditional Warli designs and motifs (e.g., geometric, animal, human figures)
- Importance of symmetry and balance
- Using stencils or freehand drawing

e) Painting techniques:
- Using bold lines and simple shapes
- Creating intricate patterns and designs
- Applying multiple layers of color

f) Symbolism and iconography:
- Understanding the symbolism behind various motifs and designs
- Using symbols to convey messages and tell stories

g) Color theory and significance:
- Understanding the significance of colors in Warli painting
- Using colors to depict emotions, mood, and atmosphere

h) Finishing techniques:
- Applying a protective coating (e.g., varnish, lacquer)
- Enhancing the painting with additional details or embellishments

i) Encouraging creativity and innovation:
- While adhering to traditional techniques, encourage students to explore new ideas and styles
- Foster a sense of artistic expression and personal connection to the art form.

Additionally, consider the following:

- Demonstrate various brushstrokes and techniques
- Encourage students to experiment with different materials and colors
- Provide guidance on composition and design principles
- Emphasize the importance of patience and attention to detail
- Share stories and legends behind Warli art to inspire students
- Encourage students to create their own Warli-inspired designs and compositions.

Module 6: Mandala (India / Tibet)

Here are some key points to include while teaching Mandala painting:

a) Introduction to Mandalas:
- History and significance
- Cultural and spiritual importance
- Symbolism and meaning

b) Materials and tools:
- Various paints and brushes
- Canvas or paper
- Geometric tools (compass, protractor, etc.)

c) Understanding sacred geometry:
- Basic geometric shapes (circles, triangles, squares)
- Patterns and symmetries
- Symbolism of shapes and patterns

d) Design and composition:
- Understanding Mandala design principles
- Creating balance and harmony
- Using symmetry and asymmetry

e) Painting techniques:
- Using colors and textures
- Creating layers and dimensions

- Blending and shading

f) Symbolism and iconography:
- Understanding the symbolism of various elements (e.g., flowers, animals, shapes)
- Using symbols to convey meaning and message

g) Color theory and significance:
- Understanding color symbolism and psychology
- Using colors to evoke emotions and moods

h) Finishing techniques:
- Adding final details and embellishments
- Sealing and protecting the artwork

i) Meditation and mindfulness:
- Using Mandala painting as a meditative practice
- Encouraging mindfulness and presence

j) Encouraging creativity and self-expression:
- Encouraging students to explore their own style and creativity
- Fostering a sense of personal growth and self-expression

Additionally, consider:

- Demonstrating various painting techniques and styles
- Encouraging students to experiment and try new things
- Providing guidance on color choice and composition
- Encouraging students to create their own unique Mandala designs
- Exploring different cultural and historical influences on Mandala art.

Module 7: Kangara Painting (Himachal Pradesh)

Here are some key points to include while teaching Kangra painting:

a). Introduction to Kangra painting:
- History and origin
- Significance and cultural importance
- Unique features and characteristics

b) Materials and tools:
- Traditional materials: handmade paper, natural pigments, and brushes
- Modern materials: acrylic paints, canvas, and brushes

c) Understanding the basics:
- Color theory and symbolism
- Composition and design principles
- Brushstrokes and techniques

d) Iconography and symbolism:
- Understanding the symbolism of various elements (e.g., gods, goddesses, animals)
- Using symbols to convey meaning and message

e) Painting techniques:
- Using bold lines and vibrant colors

- Creating intricate patterns and designs
- Applying multiple layers of color

f)Focus on detail and precision:
- Encouraging attention to detail and precision
- Demonstrating techniques for creating intricate details

g) Encouraging creativity and innovation:
- While adhering to traditional techniques, encouraging students to explore new ideas and styles
- Fostering a sense of artistic expression and personal connection to the art form

h) Understanding the cultural context:
- Exploring the history and cultural significance of Kangra painting
- Understanding the role of art in Indian culture and society

i) Practicing various Kangra painting styles:
- Basohli style
- Guler style
- Chamba style

j) Encouraging patience and dedication:
- Kangra painting requires time and effort
- Encouraging students to be patient and dedicated to their craft.

Methodof Evaluation

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions,everystudent must carryout aproject assignedbytheinstructorandsubmit thereport.
MinimumAttendancerequiredforthecandidate toappearforexamination: 75%

LBS SKILL CENTRE

CourseTitle	**DIPLOMA ON KERALA MURAL PAINTING**
Abbreviation of Course Title	DKMP
Duration of the course in Hours	500Hrs
Duration of the course in Months	12 Months
CourseFees	35000
Eligibility	10th and above

About the Course

Traditional style wall art for buildings, Temples, Churches, Pots, Sarees and other fabrics.

Objectives of the course

This comprehensive course will equip students with the knowledge and skills to create traditional Kerala mural paintings and adapt the techniques to contemporary art practices.

Scheme of Study

Subject Code	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
DKMP	Diploma On Kerala Mural Paintings	100	400	500

Syllabus of the course

Modules

1) **History and Evolution**
2) **Materials and Techniques**
3) **Color Theory and Pigments**
4) **Composition and Layout**
5) **Figurative Drawing**
6) **Ornamental Designs**
7) **Iconography and Symbolism**
8) **Practical Sessions**
9) **Preservation and Restoration**
10) **Contemporary Applications**
11) **Kerala's Cultural Heritage**
12) **Mural Painting on Different Surfaces**

Module 1: History and Evolution

Kerala mural painting course topics:

(a) Understand the origins, development, and significance of Kerala mural paintings. Famous Mural Paintings in Kerala.

Module 2: Materials and Techniques

Learn about the traditional materials (natural pigments, brushes, etc.) and techniques (preparing surfaces, mixing colors, etc.) used in Kerala mural painting.

Module 3:Color Theory and Pigments

Study the traditional color palette, pigment preparation, and color mixing.

Module 4: Composition and Layout

Understand the principles of composition, layout, and visual balance in Kerala mural paintings.

Module 5: Figurative Drawing

Learn to draw figures, faces, and hands in the Kerala mural style.

Module 6: Ornamental Designs

Study and practice traditional Kerala ornamental designs, such as border patterns and motifs.

Module 7: . Iconography and Symbolism

Understand the significance and representation of various deities, mythological figures, and symbols in Kerala mural paintings.

Module 8 :Practical Sessions

Hands-on practice and demonstrations of Kerala mural painting techniques.

Module 9 :Preservation and Restoration:

Learn about the preservation and restoration techniques for Kerala mural paintings.

Module 10 :Contemporary Applications:

Explore ways to adapt traditional Kerala mural painting techniques to modern art forms and mediums.

Module 11: Kerala's Cultural Heritage

Understand the cultural context and significance of Kerala mural paintings in Kerala's heritage.

Module 12 :Mural Painting on Different Surfaces:

Learn to paint on various surfaces, such as walls, canvas, and wood, Pottery, Cloth.

Methodof Evaluation

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions, every student must carry out a project assigned by the instructor and submit the report.
Minimum Attendance required for the candidate to appear for examination: 75%

LBS SKILL CENTRE

CourseTitle	**CERTIFICATE ON WALL ART (ACRYLIC PAINTING)**
Abbreviation of Course Title	CWA
Duration of the course in Hours	215Hrs
Duration of the course in Months	5 Months
Course Fees	12,500
Eligibility	10th and above

About the Course

Artist for creating art works on Walls of Offices, Hotels, Public Places, Stadiums etc.

Objectives of the course

This comprehensive course will equip students with the knowledge and skills to create traditional Kerala mural paintings and adapt the techniques to contemporary art practices.

Scheme of Study

Subject Code	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
CWA	Certificate On Wall Art (Acrylic Painting)	50	165	215

Syllabus of the course

Modules

1. Develop essential brush skills and learn basic painting techniques.
2. Understand color theory and practice mixing colors.
3. Perspective – 1 Point, 2 Point, 3 Point (Basics)
4. The color wheel, primary, secondary, and tertiary colors.
5. Learn how to create depth using value and light.
6. Master the principles of composition in painting.
7. Explore techniques for painting various textures.
8. Setting up and observing a still life arrangement.
9. Develop skills to paint landscapes with depth and atmosphere.
10. Techniques for painting skies, trees, water, and atmospheric perspective.
11. Creating a sense of depth and space in landscapes.
12. Paint a landscape scene from a reference photo or plein air (outdoor) setup.
13. Learn the basics of painting portraits and capturing human features.

14. Proportions of the face and body.

15. Techniques for skin tones, facial features, and expressions.

16. Contemporary Art.

17. Create a portrait painting from a reference photo or live model.

18. Planning and executing a final project based on techniques learned.

Methodof Evaluation

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions, every student must carry out a project assigned by the instructor and submit the report.
Minimum Attendance required for the candidate to appear for examination: 75%

LBS SKILL CENTRE

Course Title	**CERTIFICATE ON FINE ART LEVEL 1**
Abbreviation of Course Title	CFA L1
Duration of the course in Hours	85 Hrs
Duration of the course in Months	2 Months
Course Fees	6000
Eligibility	5th and above

About the Course

Starting level of fine arts using Oil Pastels / Soft Pastels and Sketching.

Objectives of the course

This comprehensive course will equip students with the knowledge and skills to create traditional arts on Oil Pastels / Soft Pastels and Sketching.

Scheme of Study

Subject Code	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
CFA L1	**Certificate on Fine Art Level 1**	25	60	85

Syllabus of the course

Modules

1) **Drawing Flowers,**
2) **Landscape,**
3) **Animals,**
4) **House**
5) **Colouring using Oil Pastels,**
6) **Smudging Techniques**
7) **Origami**

***Starter Kit included**

Method of Evaluation

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions, every student must carry out a project assigned by the instructor and submit the report.
Minimum Attendance required for the candidate to appear for examination: 75%

LBS SKILL CENTRE

Course Title	**CERTIFICATE ON FINE ART LEVEL 2**
Abbreviation of Course Title	CFA L2
Duration of the course in Hours	85 Hrs
Duration of the course in Months	2 Months
Course Fees	6000
Eligibility	5th and completion of LBS Fine Art Level 1.

About the Course

Starting level of fine arts using Water Colouring (Transparent).

Objectives of the course

This comprehensive course will equip students with the knowledge and skills to create traditional arts on Water Colouring (Transparent).

Scheme of Study

Subject Code	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
CFA L2	**Certificate on Fine Art Level 2**	25	60	85

Syllabus of the course

Modules

1) **Colour Theory Basics**
2) **Landscape,**
3) **Animals,**
4) **People**
5) **Sketching**
6) **Using Graded Pencils**
7) **Craft**

Method of Evaluation

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions, every student must carry out a project assigned by the instructor and submit the report.
Minimum Attendance required for the candidate to appear for examination: 75%

LBS SKILL CENTRE

Course Title	**CERTIFICATE ON FINE ART LEVEL 3**
Abbreviation of Course Title	CFA L3
Duration of the course in Hours	85 Hrs
Duration of the course in Months	2 Months
Course Fees	6000
Eligibility	5th and completion of LBS Fine Art Level 2.

About the Course

Starting level of fine arts using Gauche Painting (Opaque).

Objectives of the course

This comprehensive course will equip students with the knowledge and skills to create traditional arts on Gauche Painting (Opaque).

Scheme of Study

Subject Code	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
CFA L3	**Certificate on Fine Art Level 3**	25	60	85

Syllabus of the course

Modules

- Colour Theory
- Value, Temperature, Saturation, Color harmony.
- Landscape,
- Animals,
- People
- Sketching
- Using Charcoal Pencils
- Drawing Characters
- Poster Designing

Methodof Evaluation

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions, every student must carry out a project assigned by the instructor and submit the report.
Minimum Attendance required for the candidate to appear for examination: 75%

LBS SKILL CENTRE

Course Title	**CERTIFICATE ON FINE ART LEVEL 4**
Abbreviation of Course Title	CFA L4
Duration of the course in Hours	85 Hrs
Duration of the course in Months	2 Months
Course Fees	6000
Eligibility	7th and completion of LBS Fine Art Level 3.

About the Course

Starting level of fine arts using Acrylic Painting.

Objectives of the course

This comprehensive course will equip students with the knowledge and skills to create traditional arts on Acrylic Painting.

Scheme of Study

Subject Code	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
CFA L4	**Certificate on Fine Art Level 4**	25	60	85

Syllabus of the course

Modules

- Understanding and Preparing Canvas
- Nature Study
- Abstract Art / Visualization
- Knife Painting
- Animation Drawing
- Cartoon Drawing
- Collage

Methodof Evaluation

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions, every student must carry out a project assigned by the instructor and submit the report.
Minimum Attendance required for the candidate to appear for examination: 75%

LBS SKILL CENTRE

Course Title	**Certificate Course on Data Analytics**
Abbreviation of Course Title	CCDA
Duration of the course in Hours	200 Hrs
Duration of the course in Months	3 Months
CourseFees	25,000
Eligibility	+2

About the Course

This course introduces the fundamentals of data analytics, focusing on concepts, techniques, and tools used to analyze and interpret data. Students will learn how to collect, clean, and visualize data, use statistical methods to analyze trends and patterns, and apply best practices in making data-driven decisions.

Objectives of the course

Understand the data analytics process, from data collection to data visualization.

1. Use statistical tools and software to analyze and interpret data.
2. Apply various data visualization techniques to represent data effectively.
3. Make informed decisions based on data analysis.
4. Understand ethical considerations in data analytics.

Scheme of Study

Subject Code	Subject Name	Theory (hrs)	Practical (hrs)	Total (hrs)
CDA	Certificate Course on Data Analytics	75	125	200

Syllabus of the course

Chapter 1: ***Introduction to Data Analytics***

- Overview of data analytics
- Key concepts and terminology
- Introduction to the data analytics process

Chapter 2: ***Data Collection and Data Sources***

- Types of data: Quantitative vs. Qualitative
- Data collection methods
- Evaluating data sources for accuracy and reliability

Chapter 3: ***Data Cleaning and Preparation***

- Dealing with missing data
- Data transformation and normalization
- Data types and structures

Chapter 4: ***Introduction to Statistical Analysis***

- Descriptive statistics

- Inferential statistics
- Hypothesis testing

Chapter 5: ***Data Visualization***

- Principles of effective visualizations
- Introduction to data visualization tools (e.g., Tableau, PowerBI)
- Creating dashboards and reports

Chapter 6: ***Introduction to Data Mining***

- Data mining concepts and techniques
- Clustering and classification
- Association rules

Chapter 7: ***Predictive Analytics***

- Basics of machine learning
- Linear regression
- Decision trees

Chapter 8: Big Data Analytics

- Introduction to Big Data
- Tools and technologies (Hadoop, Spark)
- Big Data use cases

Chapter 9: Ethics in Data Analytics

- Data privacy and security
- Ethical implications of data usage
- Regulatory compliance (GDPR, HIPAA)

Chapter 10: Project Work

Method of Evaluation

Academic evaluation should be based on a continuous evaluation procedure. After completing all the theory and practical sessions, every student must carry out a project assigned by the instructor and submit the report.
Examination – Theory, Practical(Project)
Minimum Attendance required for the candidate to appear for final examination: 75%

LBS Skill Centre

Course Title	Certificate on Sketching and Painting
Abbreviation of Course Title	CSP
Duration of the course in Hours	60 Hrs
Duration of the course in Months	2 Months
CourseFees	3000
Eligibility	5th andabove

About the Course

Training on Sketching and painting

Objectives of the course

To create, develop and understanding Sketching and painting skills

Scheme of Study

Subject Code	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
CSP	Certificate on Sketching and painting	40	20	60

Syllabus of the course

Basic: Sketching and free hand drawing
Introduction of various techniques, Detail about light and shade
Medium- Pencil, Charcoal, Pen, Ink, Colour

Method of Evaluation

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions, every student must carry out a project assigned by the instructor and submit the report. Minimum Attendance required for the candidate to appear for examination: 75%

LBS SKILL CENTRE

CourseTitle	**CERTIFICATE COURSE IN ARC AND GAS WELDING**
Abbreviation of Course Title	CCAG
Duration of the course in Hours	120 Hrs
Duration of the course in Months	3 Months
Course Fees	7000
Eligibility	SSLC

About the Course

Training on Arc and Gas Welding

Objectives of the course

The Objective of the Course is it provide basic theory and technical Skill In Gas welding And Arcwelding. After completion of the course the students can do Welding In 4 positions And they can do fabrication works and the repairing of machines and also get job opportunities in mechanical industries

Scheme of Study

Subject Code	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
CCAG	CERTIFICATE COURSE IN ARC AND GAS WELDING	30	90	120

Syllabus of the course

Module 1: Safety precautions, first aid, importance of welding

Importance of welding and welding potentials in industries and employment opportunities. Study of measuring instruments -Metals -Arc and gas welding applications.
Practical - Use of personnel protective equipments, observation and practice of safety rules in workshop-Familiarization of tools and equipment's -Setting up of arc welding plant

Module 2: Familiarization of tools and equipment

Study of tools and equipment's for arc welding – welding power sources, safety equipment's, electrodes etc.- Advantage of AC and DC welding - Arc length - Type of welded joint- Edge preparation
Practical - Practice arc creation on MS plate - Straight line bead on MS plate - Weaved bead on MS plate - Metal preparation for lap joint, butt joint, tee joint, corner tee joint - Practice different positions on MS plate - Practice square butt joint in down hand, horizontal, vertical positions.

Module 3: Arc welding process, welding position and edge preparation

Types of welding positions –down hand, horizontal, vertical and overhead-Pipe positions-Arc welding defects.
Practical - Fillet joint on MS plate in down hand, horizontal, vertical, overhead position-Lap joint at different positions-Single V butt joint on MS plate-Pipe welding practice.

Module 4: Arc welded joints, welding defects

Type of gas welding-Gas welding tools and equipments-Types of gases and its properties, Manufacturing method of acetylene gases -Gas cylinders – charging, colour coding -Types and function of regulator-Types of hoses and colour coding.

Practical-Setting gas welding plant -Square butt joint on MS sheet in flat position, horizontal position, and vertical position-Lap joint and butt joint on MS sheet in different positions.

Module 5: Introduction to gas welding, equipment

Gas welding filler rod and its specification-Types of flux and its function-Types of oxy – acetylene flames

Practical - Square butt joint MS sheet in horizontal position by OAW-Lap and Tee joint on MS sheet in vertical position.

Module 6: Gas welding methods of different metals

Oxy acetylene welding technique – Right and leftward welding-Welding nonferrous metals like brass, aluminum, stain less steel etc.-Gas welding defects.

Practical -Brass welding practice-Square butt joint on SS sheet-Practice Aluminum welding-Make a useful product.

Method of Evaluation

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions, every student must carry out a project assigned by the instructor and submit the report. Minimum Attendance required for the candidate to appear for examination: 75%

LBS SKILL CENTRE

Course Title	**Diploma in Construction Quality Management**
Abbreviation of Course Title	DCQM
Duration of the course in Hours	300 Hrs
Duration of the course in Months	6 Months
Course Fees	5000
Eligibility	B.TECH (Civil)

About the Course

The course is designed to align with the demands and intricacies of the daily job responsibilities of a Quality Personal working in a project. A student who undergoes will cover all the casestudies & knowledge acquired by an experienced Quality personal.

Objectives of the course

The Diploma in Construction Quality Management fills a crucial gap in the educational landscape by providing students with comprehensive training in the principles, practices, and methodologies essential for effective quality management within the construction sector. This specialized course equips students with the necessary skills to navigate the complex challenges of modern construction projects, including ensuring compliance with regulatory standards, implementing quality assurance protocols, and mitigating risks to enhance project outcomes. By offering a structured curriculum that blends theoretical knowledge with live projects case studies, this diploma program not only prepares students to excel in their careers but also addresses the pressing need for skilled professionals capable of drivingexcellence and innovation in the construction industry.

Scheme of Study

Subject Code	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
CCQA	**CERTIFICATE - CONSTRUCTION QUALITY AUDITING (ON-LINE)**	58	242	300

Syllabus of the course

Scheme of Study

Subject Code(DCQM)	Name of the subject	Theory (hrs)	Practical (hrs)	Total (hrs)
DCQM - 1	Quality Control procedure for general civil works	20	0	20
DCQM - 2	Preventive / Preparative / Follow up inspection procedures	20	0	20
DCQM - 3	Quality Auditing Systems and guidelines	12	0	12
DCQM - 4	Post concrete defects / Tests / Repair & rework procedures	6	0	6
DCQM - 5	Internship in project	0	242	242

Syllabus of the course
Syllabus of DCQM - 1
What is Quality and why is it important - Quality control procedure of General civil works along withsequence of activities - Excavation and back filling – Slab casting – Masonry works – Painting works – Flooring & DA doing works – Pavement works – Foundation works – water proofing works (Wet and Dry) – Drainage works. Quality control procedure based on IS Codes / CPWD Standards – Reinforcement – Shuttering – Block works – Plastering works – RMC / site batch concrete – structural glazing
Syllabus of DCQM - 2
What is preventive /preparative and follow up inspection – How to prepare Quality inspectioncheck lists for General civil works – How to prepare Inspection Test plan – How to prepare Method of Statement / Standard operating Procedures – Contents required for Project QualityPlan / Quality Assurance Plan – How to prepare PQP /QAP – How to do mix design for concrete – How to raise W.I.R / R.F.I for various Civil works – Attachments required for WIR /RFI – How to raise MAR for various material inspections – Attachments required for MAR – List of equipment's required in Quality Lab at construction site – How to analyse soil investigation report – Data analysis for weekly /monthly Quality report – Statistical analysis of concrete Construction Quality dossiers – Project close out procedure
Syllabus of DCQM - 3
Dimensions of Quality – Key element of Quality – Business function w.r.t Quality – Introduction to 7 QC tools used by management - Quality Audit Procedures – Types of Quality audit in construction – Site quality audit guidelines - Documents required for the same – ISO 9001:2015 Audit guidelines – procedures – Documents required – How to conduct third party quality audit – NCR and its importance in projects.- How to provide Quality rating for projects – How to prepare audit check list for auditing a construction project /company – Guidelines for conducting intensive , vigilance & completion inspection for a project.
Syllabus of DCQM - 4
Commonly occurring post construction defects in structure – NDT to identify intensity of defects – Repair and rework procedure for defects – Preparation of Quality templates – How to conduct stabilityanalysis of a structure – Basic concept with case study.

Syllabus of DCQM - 5
➢ Site visit ➢ Project report ➢ Mock Interview
Method of Evaluation
Written examination for Theory + Mock Interview for Practical DCQM 1 - 100 Marks DCQM 2 - 100 Marks DCQM 5 - 200 DCQM 3 – 100 Marks DCQM 4 – 100 Marks
Software, Hardware and other infrastructural requirements for running this course Lap top or desk top with internet facility.

LBS SKILL CENTRE

Course Title	**ADVANCE DIPLOMA IN COMPUTER AIDED FASHION DESIGNING**
Abbreviation of Course Title	ADCAFD
Duration of the course in Hours	1500 Hrs
Duration of the course in Months	12 Months
Course Fees	Rs.40000/-
Eligibility	Any Bachelor's Degree

About the Course: *This advance diploma course in Computer Aided Fashion Designing covers a wide range of topics related to fashion designing, textiles and apparel, and application of computers in the field of Fashion its various techniques and its implementation.*

Objectives of this course

- ***To understand the general principles of Fashion Designing***
- ***To understand the process of textiles & garment manufacturing process***
- ***To understand the usage of Computers, CAD in Fashion and Apparel***
- ***To understand the various techniques and its implementation in Fashion Design process***

SCHEME OF STUDY

Subject Code	**Name of the subject**	**Theory (Hours)**	**Practical (Hours)**	**Total (Hours)**
ADCAFD	ADVANCED DIPLOMA IN COMPUTER AIDED FASHION DESIGNING	500	1000	1500

SYLLABUS OF THE COURSE

SUB CODE	***SUBJECT***	***Theory***	***Practical***	***Total***
	SEMESTER – 1			
TS - 11	*Textile Science*	*100*		
GM- 12	*Garment Manufacturing Technology*	*100*		
OF- 13	*Overview of Fashion*	*100*		
SD- 14	*Surface Design Technique – I (P)*		*100*	
FI -15	*Fashion Illustration and Design – I (P)*		*100*	
GC- 16	*Garment Construction – I (P)*		*100*	
PD- 17	*Pattern Design Process – women's wear(P)*		*100*	
	SEMESTER – 2			
FM – 21	*Fashion Marketing, Merchandising & Retailing*	*100*		
CT – 22	*Costumes and Textiles of India*	*100*		
CA – 23	*Computer Applications in Fashion*	*100*		
PD – 24	*Pattern Design Process – Menswear (P)*		*100*	
FI – 25	*Fashion illustration and Design – II (P)*		*100*	
SD – 26	*Surface Design Technique – II (P)*		*100*	
CD – 27	*CAD In Fashion (P)*		*100*	
GC – 28	*Garment Construction – II (P)*		*100*	

Method of Evaluation: *Academic evaluation will be based on continuous evaluation procedures. After completion all the sessions, every student must carry out a project assigned by the faculty and submit the detailed report as per the guidelines.*
Minimum attendance required *for the candidate for appearing in the examination :* ***75%***

TEXTILE SCIENCE (T)
Sub Code: TS-11

Objectives

- To enable the students to understand the process of Textile manufacture
- To study about the different textile fibres and fabrics such as cotton, silk, wool & Polyester etc.
- To understand the about the different textile fibres - natural or artificial/synthetic
- To understand the process of Fabric manufacture

UNIT: I
Introduction to textile Industry - Classification of Textile Fibres - Natural and Synthetic – General Properties of Textile Fibres

UNIT: II
Manufacturing process, properties and uses of natural fibres – Cotton, Linen, Jute, Hemp, Silk, Wool, hair fibers, Man-made fibres -Viscose rayon, Acetate rayon, Nylon, Polyester, acrylic etc.

UNIT: III
Spinning -Definition, Classification Chemical and mechanical spinning-blending opening, cleaning, doubling, carding, combing, drawing, roving, spinning Yarn classification-definition, classification-simple and fancy yarns, Sewing threads and its properties.

UNIT: IV
Weaves-weaving mechanism, parts of a loom and its functions. Classification of Looms – Shuttle looms – Shuttle less Looms. Introduction to Weave Designs and different types of Weaves – Plain Weave and its Derivatives, Twill Weaves, Satin weaves, Fancy weaves-pile, double cloth, leno, swivel, dobby and jacquard

UNIT: V
Non-Woven- felting, fusing, bonding, lamination, netting, braiding and calico, tatting and crocheting.

Suggested reading & reference material

1. Fabrics Science by Joseph J. Pizzuto
2. Textiles from fiber to fabrics by B.P. Corbmann.
3. Understanding Textiles by Phyllis G. Tortora, Billie J. Collier
4. Weaving Calculation by Sen Gupta
5. Introductory textile science by Joseph J. Pizzuto
6. Fibre Science by Marjory Joseph

Garment Manufacturing Technology (T)
Sub Code: GMT – 12

Objectives

- To provide better knowledge about textile and garment industry and to understand about the different departments of Garment Industry
- To understand the stages in the process of product development and to study about role of designer in development of functional and production friendly design.
- To understand all the common fabrics used in garment manufacturing and to provide better knowledge about trims and trim details.
- To understand the process of Cutting, Spreading, and Sewing departments of Garment Industry
- To understand the quality control procedures followed in the garment manufacturing Unit.

UNIT – I

Industry Infrastructure and it's Profile-Different textile sectors- Handloom/Power- loom/Mill sector, Emergence of Mill sector. Garment Manufacturer and Garment and allied fabricators-Roles and differences. SWOT analysis of garment industry in India. Fundamental Structure of Industry - Organization structure of a garment - manufacturing unit. Work flow in a garment-manufacturing unit (Fabric Inspection to Finishing)

Importance of design in Production: Designers role in producing functional and production friendly designs - Process involved in designing a design sheet - Important and use of PMTS Analysis and evaluation of counter sample - Pre Production Process - Various types of fabrics used.

UNIT – II

Trims - Complete trim details-types, significance of each, sourcing, etc. Types of trim - shoulder pads, buttons, thread, labels, hang tags, size disc, hanger, hook and bar, zippers, pocketing etc. Trim calculation based on cutting tickets. Interlinings/ Lining - Types/Uses/Methods of Application Various types of resins used and their Wash instructions Equipment used for Fusing/ Operation of Fusing machine Quality Problems associated with fusible interlinings

Fabric & Cutting Room - Inspection of fabric and it's control-4 point fabric inspection system - Various methods of spreading fabric-requirements of spreading process, a different type of fabric spreads. Concept of Splicing and Stepped Lay - Different Types of Spreading Equipment.

Use and importance of marker-calculation of marker efficiency. Advantages of CAD marker vs manual marker. Understanding of pattern & methods if laying patterns. Concept of 'sectioned marker'. Yardage control in cutting room.

Concept of Nap(NEW, NOW, NUD), Face(FEW, FOW,FUD) etc

Types of cutting machines and advantage of each-Straight Knife, Round Knife, Band Knife, Die Cutter, End cutters, Notchers. Different types of blades of cutting knives. Reasons for Quality problems in cutting.
Method of bundling & ticketing. Use of bundling and ticketing. Problems associated with ticketing.

UNIT – III
Sewing room - Machines-Types, uses and applications - Use of attachments. Sewing-Stitch types and Properties. Various techniques of production in sewing room - Make through, Modular manufacturing, Assembly Line, Advantages and disadvantages of each

UNIT – IV
Factory visit – ½ day visit to any garment manufacturing unit.
Operations break down of garment - Shirt/ T-shirt, dress, trouser/ jeans, etc. Finishing Room Equipment-Form Finisher, Steam Press, Steam Tunnel, Dolly press, heat Chamber Processes involved-Under pressing, Top pressing - Packing

UNIT – V
Quality Control - Fabric to Ware house - Definition of Quality, Importance of testing in quality, Stages of QC in Apparel manufacturing company, Purpose of Pilot, Mid and final inspections, Quality Manual, Apparel manufacturer's role in producing quality product. Costing - Factors affecting costing - Labour Costing - Direct, Indirect costs in apparel industry. Basic Calculation of manufacturing costs.

Suggested Reading and Reference Material

- Technology of Clothing Manufacture Carr and Latham
- Garment Technology for Fashion Designers Gerry Cooklin
- Apparel Sewn Product Analysis Glock and Kunz

OVERVIEW OF FASHION (T)
Sub Code: OF-13

Objectives

- Impart knowledge on design concepts in the field of fashion
- Familiarise with the fashion cycles, consumers and theories
- Design suitable garments for unusual figure types

UNIT –I

Design- definition and types – structural and decorative design, requirements of a good structural and decorative design in dress. Elements of design and its application in dress – line, shape or form, colour and texture. Principles of design and its application in dress – balance, rhythm, emphasis, harmony and proportion.

UNIT – II

Colour theories; Prang colour chart Dimensions of colour- hue, value, and intensity.
Standard colour harmonies – Related, Contrasting and Neutral colour harmony; Application of Colour in principles of design- application of the same in dress design.

UNIT – III

Fashion evolution – Fashion cycles, Length of cycles , consumer groups in fashion cycles – fashion leaders , fashion innovators, fashion motivation , fashion victim, Fashion followers. Adoption of Fashion theories – Trickle down, trickle up and trickle across. Fashion forecasting – Need for forecasting

UNIT – IV

Deigning dresses for unusual figures – becoming and unbecoming – for the following figure types. Stout figure, thin figure, slender figure, narrow shoulders, broad shoulders, round shoulders, large bust, flat chest, large hip, large abdomen, round face, large face, small face, prominent chin and jaw, prominent forehead

UNIT – V

Definition and meaning of the fashion terms – fashion, style, line and collection, Mannequin and dress forms; fashion show; high fashion; Haute couture, couture and couturier; knock-off; Avant Garde; Pre – a – porter. Role/qualities of a Fashion Designer, Fashion Stylist, Fashion Journalist, Fashion Merchandiser, Fashion Director.

Suggested Reading and Reference Material

- Fashion Sketch Book – Bina Abling, Fair Child Publications, New York Wardrobe,1988.
- Art and Fashion in Clothing Selection – Mc Jimsey and Harriet, Iowa State University Press,Jowa,1973.
- Fashion From Concept To Consumer – Frings Gini Stephens, Pearson Education, US, 1998.
- Inside the Fashion Business – Kitty G. Dickerson, Pearson Education,US, 2007.

SURFACE DESIGN TECHNIQUE (P)
Sub Code: DS-14

Objectives

- Inherit embroidery skills by hand and machine
- Appreciate the beauty and intricacies of the traditional embroideries of India
- Enhance creativity with the application of smocking

UNIT- I

Create Hand Embroidery Samples (20 stitches and 10 samples)

- Outline stitches
- Filling stitches
- Loop stitches
- Cross stitches

UNIT – II

Create Embroidery Samples Using Machine (5 stitches and 2 samples)

- Running stitch
- Satin Stitch
- Granite Stitch
- Cording
- Needle cording

UNIT – III

Create the Following Samples

- Bead work
- Sequin work
- Ribbon embroidery
- Mirror work
- Drawn thread work

UNIT – IV

Create Samples with Applique, Patch work and Quilt (any 2 types)

- Applique
- Simple / Geometric patch work
- Crazy patch work
- Quilting – simple and patterned

UNIT – V

Create Samples with Smocking

- French Smocking (any 3 types)
- Chinese Smocking

Suggested Reading and Reference Material

- Shailaja D Naik , Traditional Embroideries of India, APH Publishing, 1996
- Megan Eckman, Everyday Embroidery for Modern Stitchers, C&T Publishing, 2020
- Libby Moore, Thread Folk: A Modern Makers Book of Embroidery Projects and Artist Collaborations, Paige Tate & Co, 2019

FASHION ILLUSTRATION AND DESIGN (P)
Sub Code: FI – 15

Objectives

- To introduce students to fashion illustration, sketching and rendering techniques.
- To enable the students to work outward from a point of focus or inspiration to develop a complete collection.

UNIT - I
Introduction to human anatomy - Illustration as Visual Communication to represent fashion figure - Fashion proportions - Understanding of movement and balance - Croqui with ball joints. Drawing of the fashion figure correlating geometric and fleshed out croquis Figure analysis of front, Side view

UNIT - II
Figure analysis of ¾, side, back. Foreshortening, Understanding of Guidelines, Fashion heads, faces, hairstyles, Hands & feet

UNIT - III
Different Lines – Vertical, Horizontal, Diagonal, Wavy, zigzag, Dotted, Dashed, Spiral etc:-
Free hand drawing techniques of brush and pencil and related exercises.
Introduction to different mediums- Poster Color, Photo Color, Fuji Color, Water Color, Drawing Ink, Dry Crayons, Charcoal Pencil, Charcoal Stick, Pencil.
Identification of garment classification and details

UNIT - IV
Different types of lines in a garment .Illustrate the line effects in the same silhouette-any 5 types
Creating Checked effects in a garment –one color and more than one color
Creating printed effects in a garment –one color arid more than one color
Drawing from Photographs –any 2 garment designs

UNIT - V
Inspiration Board, Mood Board, Story Board, Color Board and Swatch Board.
Flat Sketches.
Art Plates – Collection of Croquis /Fashion Plates.
Portfolio Presentation on Two garments

Suggested Reference and Reading Material

- Fashion Design Illustration of Children – P. J. Ireland
- Advanced fashion Sketch Book – Bina Abling
- Fashion Illustration – Colin Barnes
- Fashion Illustration Today – Nicholas Drake

GARMENT CONSTUCTION – I (P)
Sub Code: GC – 16

Objectives

- To understand the basic concepts of Sewing
- To gain the knowledge about the sewing parts and its functions
- To understand the different types of Seams and Seam finishes
- To understand the process of various garment manufacturing and its techniques

UNIT – I

Parts of Sewing Machine and its Functions (SNLS). Threading of Sewing machines – Stitching practice – Paper Exercises. Introduction of Different types of Seams – Super Imposed Seams, Bound Seams – Flat Seams –Lapped Seams – (Create 20 Samples in Seams)

UNIT – II

Development of Samples of Patch Pockets with Flaps (Square Pockets, Round Pockets, Hexagon Pocket, V-Pocket). Development of Plackets for Shirts. (Create 5 Samples for Pockets and 5 samples for Plackets). Development of samples for Garment Components – Collar, Cuffs, Sleeve Plackets, Pleats, Fly (Zipper and Button Fly), Welt Pockets etc.

UNIT – III

Necklines – finishes

Creating samples for different necklines and neckline finishes. Collars - Convertible collars, Peterpan collar, Mandrin collar, Bertha collar (Square and Round bertha) –

Creating samples for different types of collars and attaching collars in neckline

UNIT – IV

Design and Development of Basic Bodice with Collar, Design and Development of Basic Skirt

UNIT – V

Design and Development of different types of Skirts (Minimum Two skirts has to be stitched). Develop a women's garment with Collar and Sleeve.

Suggested Reference and Reading Material

- Complete Book of Sewing – Reader's Digest
- Sewing for Fashion Design – F.I.T
- Encyclopaedia of Dress making - Jewel.R
- Complete Book of Sewing Short Cuts - Claire B. Shaeffer

PATTERN DESIGN PROCESS - (Womenswear) (P)
Sub Code: PD – 17

Objectives

- To understand the basic concepts of Pattern Making
- To gain the knowledge of Drafting the basic pattern set
- Draft the pattern for different types of Bodices with Dart Manipulation techniques
- Draft the patter for different skirts, sleeves and collars

UNIT – I

Understanding of human body, - Measuring techniques, and -pattern terms and terminology - -Basic bodice front and back sloper development. Dart Manipulation by different method, styling through dart manipulation

UNIT – II

Development of Basic Skirt and Development of patterns for different skirt variations. Development of Basic Sleeve and Development of Patters for Different Sleeve Variations. Development of Collar and its variations

UNIT – III

Development of TORSO patters (Full Dress) – Variations – Muslin Test

UNIT – IV

Kimono Sleeve and its variations - Muslin test fit on Dress form for spot evaluation (submission of paper pattern along with muslin)
Raglan Sleeve and its Variations – Muslin test fit on Dress form for spot evaluation (Submission of Paper Pattern Along with Muslin)

UNIT – V

Trousers and its variations - Muslin test fit on Dress form for spot evaluation (submission of paper pattern along with muslin

Suggested Reading & reference Material

- Kopp, E. Rolfo, V. and Zelin -Designing apparel through the flat pattern.(Fairchild publications, inc. 1960.)
- Kopp, E., Rolf, V., and Zelin - How to Draft Basic Patterns. (Fairchild Publications, Inc. 1968.)
- Kopp, E., Rolfo, V., and Zelin - New Fashion Areas for Designing Apparel through the flat pattern. (Fairchild Publications, Inc. 1972.)
- Armstrong, Helen Joseph - Patternmaking for Fashion Design. (Harper & Row publications.)
- Martin M. Shoben & Janet P. Ward - Pattern Cutting and Making up: The Professional Approach.
- Natalie Bray - More Dress Pattern Designing

Fashion Marketing, Merchandising and Retailing (T)
Sub Code: FM – 21

Objectives

- Impart knowledge on the underlying concepts of marketing and fashion marketing
- Familiarise with the fashion products, consumer, communications, research and forecasting
- Describe the role of merchandisers in the garment industry and their types

UNIT – I: INTRODUCTION TO MARKETING

Marketing – Meaning, Marketing management philosophies, Marketing and Fashion Marketing, The fashion market – structure and size. Marketing environment – Micro and Macro marketing. Marketing Mix – Product, price, promotion and place; Marketing Functions – Assembling, standardization and packaging; Digital Marketing – meaning, scope and advantages

UNIT – II: FASHION PRODUCTS AND THE CONSUMER

Marketing fashion products – importance and classification of products; the product mix and range planning; the fashion product life cycle; Fashion Consumer - Role of consumer behavior in marketing, types of consumer decisions, the decision process, factors that influence decisions - consumer attitudes, consumer motivation, consumer personality, opinion leadership, family and social status

UNIT – III: MARKETING – COMMUNICATION, RESEARCH AND FORECASTING

Fashion marketing communications – traditional approach and integrated approach Fashion marketing research – purpose and significance, stages in the research process. Fashion forecasting – meaning and importance, basics of predicting trends – colour, theme, shape, key events, target market; trend forecasting process

UNIT – IV: TYPES OF MERCHANDISERS AND VISUAL MERCHANDISING

Merchandiser – essential qualities of a merchandiser; types and functions of merchandisers – fashion merchandiser, visual merchandiser, export merchandiser and retail merchandiser;
Visual Merchandising – Elements of Visual Merchandising – Needs – Psychology – Types of Display; Elements of display.

UNIT – V: STORE MANAGEMENT IN MERCHANDISING

Store Management in Merchandising - Introduction, Objectives, Types of Stores, Location of a Store, Store Layout, Types of Store Layouts, Store Space Allocation. Store Design - Introduction, Concept of Store Design, Exterior of a store, Interior of a store, Merchandise Presentation -tools and techniques

Suggested Reading & reference Material

- Fashion Marketing, Mike Easey, Wiley-Blackwell Publishing. 2009.
- Fashion Merchandising & Merchandising, Mary G.Wolfe, The Goodheart-Willcox Co.,Inc, Illions, 2014.
- Fashion –From concept to consumer – Gini Stephens Frings , Prentice Hall (1999).

Costumes and Textiles of Indian (T)
Sub Code: CT – 22

Objectives

- Impart knowledge and understanding of the diverse and valuable traditional Indian textiles.
- Appreciate the various styles of traditional Indian costumes
- Value the beauty and intricacy of the Indian Jewelleries

UNIT - I : Origin and Growth of Costume

Beginning and growth of Costume - Painting, Cutting and Tattooing. Ancient costumes – Indus valley civilization, Vedic period, Maurya period, Mughal period. Costumes of India - pre and post-independence era

UNIT – II: Dyed and Printed Textiles of India

Study of dyed and printed textiles of India –Bhandhani, Patola ,ikkat, kalamkari- in all the above types and techniques used. Study of woven textiles of India – Dacca Muslin, Banarasi/ Chanderi brocades, Baluchar, Himrus and Amrus,Kashmir shawls, Pochampalli, silk sarees of Kancheepuram.

UNIT - III: Traditional Costumes of India

Traditional Costume of different States of India - Tamil Nadu, Kerala, Andhra Pradesh, Karnataka, Assam, Orissa, West Bengal, Maharashtra, Rajasthan, Uttar Pradesh, Jammu and Kashmir, Gujarat.

UNIT - IV: Indian Jewellery

Indian Jewellery – Jewellries used in the period of Indus valley civilization, Mauryan period, the Pallava and Chola Period, Symbolic Jewellery of South India, Mughal period. Temple Jewellery of South India, Tribal jewellery

UNIT - V: Traditional Embroideries of India

Traditional embroideries of India – Origin ,Embroidery stitches used – embroidery of Kashmir , Phulkari of Punjab ,Gujarat – Kutch and Kathiawar, embroidery of Rajasthan , Kasuti of Karnataka, Chickenwork of Lucknow, Kantha of Bengal.

Suggested Reference and Reading Material

- The costumes and textiles of India – Jamila Brij Bhushan, D B Taraporevala Sons & Co, Bombay ,1958.
- Indian Costume –G.S. Ghurye, Popular Prakashan Pvt Ltd, India ,1967.
- Indian Jewellery – M.L Nigam, Lustre Press Pvt Ltd ,India ,1999.
- Traditional Embroideries of India – Shailaja D. Naik , APH Publishing , India ,1996.

Computer Applications in Fashion (T)
Sub Code: CA – 23

Objectives

- Impart the basic knowledge required for handling the computer in Apparel Industry
- Introduce the role of Computer in Apparel Sector
- Create the awareness about the integration of computer in Machinery and tools
- Describe the process sequence involved in computer aided Manufacturing
- Develop the ability to maintain computer integrated Manufacturing

UNIT- 1:
Introduction to Computer, Computer basics-Computer specifications -Input/Output devices. Concept of CIM-Computer aided fashion-Computer aided garment manufacturer-Corel draw. Development of designs for Surface decorations.

UNIT- 2:
Computer pattern making, grading and Marker planning. Draping on mannequins to check the fitting and texture mapping. Study of Lectra, Gerber and other Softwares.

UNIT- 3:
Computer application in Sewing and Embroidery-Computer aided colour matching. Enterprise resource planning, supply chain management.

UNIT - 4:
Computer controlled overhead transport and ware house storage systems.The Impact of colour graphics of clothing design-CAD in fabric design

UNIT - 5
CAD in clothing design-Computer colour graphics-Creating visual images.Computer applications in fabric design, Create weave design, Creating jacquard designs.

Suggested Reference and Reading Material

- Clothing Technology – Hannelore Eberle et –al, Verlaag Europa – Lehrmittel, Vollmer Gmbh & Co 4287, Haan – Gruilen.
- Computer Fundamentals – P K Sinha , BPB Publications, Delhi (1992)
- The technology of clothing manufacture – Harold Carr and Barbara Latham, Blackwell Ltd (1994)
- Pattern Grading for Women‟s Cloths The Technology of sizing – Gerry Cooklin, Blackwell Science Ltd

Pattern Design Process – Menswear (P)
Sub Code: PD – 24

Objectives

- To develop the patterns for Men's Shirt, Trousers
- To Develop the patters for Jackets with Sleeve and Collar
- To Develop the patters for Waist coat and garments with Hoods

UNIT - I
Development of Men's Shirt and Men's Trouser - Type of Submission - Muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

UNIT - II
Jacket two piece sleeve coat collar, shawl collar - Type of Submission - Muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

UNIT - III
Jacket Block and Jacket Variation – Type of Submission - Muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

UNIT - IV
Waist Coat and Overcoat – Type of Submission - Muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

UNIT - V
Build-up Necklines, Capes and Hoods - Type of Submission - Muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

Suggested Reference and Reading Material

- Kopp, E. Rolfo, V. and Zelin -Designing apparel through the flat pattern. (Fairchild publications, inc. 1960.)
- Kopp, E., Rolf, V., and Zelin - How to Draft Basic Patterns. (Fairchild Publications, Inc. 1968.)
- Kopp, E., Rolfo, V., and Zelin - New Fashion Areas for Designing Apparel through the flat pattern. (Fairchild Publications, Inc. 1972.)
- Armstrong, Helen Joseph - Patternmaking for Fashion Design. (Harper & Row publications.)

Fashion Illustration and Design – II (P)
Sub Code: FI – 25

Objectives

- To introduce students to fashion illustration, sketching and rendering techniques.
- To enable the students to work outward from a point of focus or inspiration to develop a complete collection.

UNIT - I

Introduction to fashion model drawing to understand the proportion, volume, Balance and basic anatomy. Introduction of drawing garment components, details and garment categories Practical line drawing - illustration based design project emphasizing the nature of Fashion based Illustration & the human Anatomy in aesthetic perspective

UNIT - II

Explore different media as a tool for rendering or stylized croqui and garment, details of surfaces. Practical Illustration and rendering Project workings usage of various mediums

UNIT - III

Design Process includes mood board, client profile, material and swatch board. Practical Illustration and research based Design Project.

UNIT - IV

Introduction of Flat working drawing, Incorporating, Working Drawing, Flat with Design Process. Practical Illustration and research based Design Project.

UNIT - V

Co-relating Computer skill's to accurately portray garments with technical details, along with page layout graphic to understand Presentation Techniques. Practical design based Project having a holistic approach utilizing computer leanings & illustration skills

Suggested reference and Reading Material:

- Advanced Fashion Sketch Book – Bina Abling
- Fashion Illustration – Colin Barnes
- Figure Drawing for Fashion I, II - Isao Yajima
- Fashion Illustration Today – Nicholas Drake
- Fashion Illustration Now - Laird Borrelli
- Fashion Illustration – Steven Stipelman
- Fashion Art for the Fashion Industry – Rita Gersten
- Fashion Design in Vogue - William Packer

Surface Design Technique – II (P)
Sub Code: FI – 26

Objectives

- To understand the techniques of Dyeing and Printing in fabric surface Design development
- To develop the skills in Tie- Dye, Batik, Screen Printing
- Development of Collection using Traditional Dyeing and Printing techniques

UNIT - I

Introduction to Textile Design - Design, color, - The business of Textile Design - Role of Technology

UNIT - II

Stencil Printing - Brief presentation on stencil printing - Step by step guide to stencil printing, innovations & exploring techniques

Block & Screen printing - Methodology – making the paste, colour pad - Making of the screen - Printing in simple colour - & 2 colours for both block
& screen printing. Practical demonstration of block & screen printing.

UNIT - III

Tie & Dye - Presentation of different techniques of tie & dye & products made by these techniques technologies - Dye recipes - Innovation & Exploration

UNIT - IV

Batik - Presentation of different types of batik (block, pen, brush) - Traditional batik designs - & contemporized ones - Methodology of batik – drawing, tracing, waxing, dyeing & re-waxing.

UNIT - V

Exploration & development of swatches geared towards a fashion collection – briefing.

Suggested Reading & Reference Material

- The Textile Design Book - *Jeistorp, Kohlmark Carol Joyce*
- Textile Design - *Carol Joyce*
- Textiles, 5000 years - *Jennifer Harries*
- Essential Design – Bloomsbury 1992 – *McDermott C.*
- A History of Textile Art – *Pasold /Sotherbys 1979 – Geljer*
- Textile Terms and Definitions – *Textile Institute 1986*
- British Craft Textiles – Collins 1985 – *Suiton*
- Textile of the arts and crafts movement – *Thames and Hudson 1988 – Parry*
- English & American Textiles from 1790 to the present – *Thames and Hudson 1979 – Schoeser M.*

CAD in Fashion (P)
Sub Code: CD – 27

Objectives

- Expose the learners to abroad array of coral draw and Photoshop in textile and fashion.
- Develop skills on computerized designing and learning all techniques for graphic designs

UNIT - I

Principles of bitmap graphics and file formats - Principles of bitmap graphics and file formats, Bitmap vs. vector graphics, differentiation, their usage and applicability

Introduction to digital color theory and calibration - Graphical interface using Corel Draw - Graphical interface using Corel Trace

Image size & resolutions - Image size, resolution of images -Monitor and Printer Resolution- Screen Frequency, File Size, Re-sampling- Printing images

Tools and Palettes - Using all the Photoshop tools and the options bar - Using all the Photoshop palettes

Selections and Channels - Making selections with tools - Modifying selection borders, Inversing, feathering, using grow and similar transforming selections -Masks and channels; saving selections as alpha channels; loading and modifying alpha channel masks; channel options -Using quick mask mode-Making masks from colour channels-Using the Extract command-Creating spot colour channels

Image Editing - Cloning pixels data; image retouching - Using the Healing brush- Creating patterns- Combining and compositing images- Using the History palette; restoring and erasing images; using snapshots; reverting to prior history

Using Layers - Creating images using Layers; transforming; adding deleting, moving, hiding; showing; merging; flattening - creating a layer set - Managing layers - Setting opacity and blending options - Using layer effects and styles - Using adjustment layers - Using fill layers - Using layer masks - Creating clipping groups- Type layers

Transforming Images - Changing the work canvas - Rotating, flipping, cropping - Transforming images - Retouching and repairing images-Using retouching tools - Working with Type

UNIT - II

Using Type - Editable type vs. rasterised type - Type layers - Editing text; changing type attributes of size, leading, spacing, baseline shift, scaling; using paragraph settings - Type masks- Creating text on a path- Converting type to shapes- Special effects with type; painting; stroking; screening; fading; warping

Painting and Colouring- Painting tools – Erasing- Blending modes – Gradients-Working with brushes- Creating and managing patterns

Paths and Vector shapes- Paths and Shapes - Mastering the pen tools-Using the paths palette - Editing paths; saving paths; reshaping; converting paths to selections; stroking and filling paths- Creating layer clipping paths; creating a shape layer; using the pathfinder option- Rasterise a shape layer; transform a shape layer -Converting between paths and selection borders - Adding colour to paths - Clipping paths, creating clipping paths for deep -etching and silhouetting

Applying Filters - About plug-in filters - Applying filters; modifying filter effects; filter techniques- Un-sharp masking -Filter groups
Colour Tone Adjustments & Management - About colour management - Using the colour adjustment tools - Using the Curves and Levels - Setting auto correction options - Creating Duotones - Identifying out-of-gamut colours
Automation - Using Actions; recording and editing actions - Using the Batch command
Preparing Graphic for the Web - About optimisation and optimising images - Optimising colours in GIF - Saving optimised images - Setting output options
Printing from Photoshop

UNIT - III

Create the following using Photoshop
1. Motifs / small designs. Embroidery designs for Kerchiefs, Neck lines Chest prints for T-shirts and its colour separation
2. Children's Garments - Jabla- different styles Frocks- different styles Middi and Tops - different styles
3. Women's Garments - Churidhar- different styles Full gowns - different styles Middi & Tops - different styles Princess line Dress- different styles. House coats, Aprons, Nighties
4. Men's Garments - S B vest T- Shirt - different styles Shirts - different styles Kurta pyjama - different styles
5. Create logos & label for branded companies.
6. Create design for Hand bag, Hat and Footwear

UNIT - IV

Create the following using Adobe Illustrator
1. Designing Sticker,
2. Advertisement page,
3. Letter Head

UNIT - V

Create the following using Adobe Illustrator
Menu card for designer boutique, T-shirt print for logo
Portfolio card with the CD booklet and label
Brochure designing for the given theme

Suggested Reference and Reading Material

- Adobe Illustrator CS2 Classroom in a Book' by Adobe Creative Team
- The Adobe Illustrator CS2 Wow! Book' by Sharon Steuer
- Illustrator CS2 Bible' by Ted Alidach & Brian Underdahl
- Exploring Illustraor CS2' (Design Exploration Series) by annesa Hartman
- Adobe Illustrator CS2 Gone
- wild' by David Karnns & Bruce K. Hopkins

Garment Construction – II (P)
Sub Code: CD – 27

Objectives

- Develop and implement advanced techniques in garment construction.
- Understand the various pattern making method
- Develop skills in creating recent garment styles.
- Create the awareness about the tools and Equipment used in Apparel Designing
- Understand the techniques related to apparel and its construction analysis.

UNIT - I

Neckline-variations – trends, Collars – Variations, Different pockets and flaps, Plackets – Variations.

Sleeve-Variation, Sleeves-placket, Cuffs-variations, Waist band

UNIT - II

Shirt – Assembly. Designing and Development of Men's Shirts

Trouser – Assembly. Designing and Development of Men's Trousers

Waistcoat – Assembly. Desinging and Development of Waist Coat

UNIT - III

Design and Development of Sari blouses / choli blouse, Kurta, Kalidar Kurta, Kameez, Churidar, Salwar

UNIT - IV

Designing and Drafting and construction of a Jumpsuit, Designing of all kinds of casual and formal wear garments for children (romper, frock, skirt, night suit, sundress, and jumpsuit)

UNIT-V:

Clothing for people with special needs- Maternity and lactation period, Old Age, Physically Challenged.

Suggested Reference and Reading Material

- Complete Book of Sewing – Reader’s Digest
- Sewing for Fashion Design – F.I.T
- Singer Sewing Step by Step
- Encyclopaedia of Dress making - Jewel.R
- Book on Practical Construction by Mary Matthews
- Complete Book of Sewing Short Cuts - Claire B. Shaeffer

LBS SKILL CENTRE

Course Title	**Diploma in Fashion Technology**
Abbreviation of Course Title	DFT
Duration of the course in Hours	3000 Hours
Duration of the course in Months	24 Months (2 Years) [4 Semesters]
Course Fees	Rs.70000/- [Rs.35000/- per year]
Eligibility	SSLC & Above

Course Information:

This Diploma in Fashion Technology Course is a programme where a candidate is trained on Professional Skill, Professional Knowledge and Employability Skill related to the field of Fashion Design, Technology, Apparel Manufacturing and Fashion Retail. In this course we encourage each and every student to access and nurture their own natural sense of flair and creativity. We also help them to know that how can they create new ideas, thoughts and also to execute them in real form in the field of Fashion Design.

The broad components covered under this Diploma in Fashion Technology course are identification of tools & sewing machine, sketches of female croquie and design using elements and principle of design in terms of dress. The students will also be able learn to draw texture and perform fabric rendering and also develop motifs for various traditional embroideries and perform machine stitches to make different parts as per design. This course also covers different fabrics; designing through Corel draw and working on special effects are also part of the professional components in this part. The professional skill starts sketching different elements of garment.

Objectives of this course

- *Interpret and illustrate importance of Fashion designing*
- *Sketch fashion croquie of female and design garments with the help of elements using principles of design and colour scheme.*
- *Drape, illustrate Fabric rendering and drawing texture.*
- *Apply surface ornamentation with embroidery*
- *Apply basic Stitches, Seams and Edge finishes with operation on Sewing machine.*
- *Identify different Fibers and Fabrics along with Weaves and Knits.*
- *Create and Design Garments and Accessories in Corel Draw using tools and commands.*
- *Create Bodice Block Set & Patterns and construct samples of Design Details.*
- *Apply garment details in fashion illustration.*
- *Analyse human anatomy with Eight Head theory and different types of body contour.*
- *To understand the principles of the Apparel production and fashion retailing*

Learning Outcomes

Students will be able to construct tailored garments, in correct sequence of operations Students will be able to manipulate patterns using half scale slopers and create other styles within a given frame of time.

Students will be able to analyze and use color units effectively in their design process. Students will be able to use industry terminology and equipment in appropriate ways. Students will be able to develop a library of fashion croquis/templates.

SCHEME OF STUDY				
Subject Code	**Name of the subject**	**Theory (Hours)**	**Practical (Hours)**	**Total (Hours)**
DFT	Diploma in Fashion Technology	800	1600	2400

SYLLABUS OF THE COURSE				
SUB CODE	***SUBJECT***	***Theory***	***Practical***	***Total***
SEMESTER – 1				
BT – 11	*Basic Textiles*	*100*		*100*
IF – 12	*Introduction to Fashion*	*100*		*100*
EP - 13	*Elements and Principles of Design*		*100*	*100*
PM – 14	*Pattern Making – I (Women's wear)*		*100*	*100*
GC – 15	*Garment Construction – I (Basics)*		*100*	*100*
SD – 16	*Surface Design Techniques – I*		*100*	*100*
SEMESTER – 2				
IE – 21	*Indian Embroideries & Traditional Textiles*	*100*		*100*
DP – 22	*Design Perspectives & Communication Skills*	*100*		*100*
FI – 23	*Fashion Illustration – I*		*100*	*100*
PM – 24	*Pattern Making – II (Women's wear)*		*100*	*100*
GC – 25	*Garment Construction – II Women's wear)*		*100*	*100*
SD – 26	*Surface Design Technique – II*		*100*	*100*
SEMESTER – 3				
AS –31	*Apparel Sewing Techniques*	*100*		*100*
FS – 32	*Fashion Studies*	*100*		*100*
FI – 33	*Fashion Illustration – II*		*100*	*100*
PM – 34	*Pattern Making – III (Menswear and Kids wear)*		*100*	*100*
GC – 35	*Garment Construction – III (Men's wear and Kid's wear)*		*100*	*100*
CA – 36	*CAD in Fashion – I (Basics)*		*100*	*100*
SEMESTER – 4				
FM – 41	*Fashion Marketing and Retailing*	*100*		*100*
VM – 42	*Visual Merchandising*	*100*		*100*
CA – 43	*CAD in Fashion – II*		*100*	*100*
PD – 44	*Portfolio Development*		*100*	*100*
DC – 45	*Design Collection (Final Project)*		*200*	*200*
Total Marks		*800*	*1600*	***2400***

Method of Evaluation: *Academic evaluation will be based on continuous evaluation procedures. After completion all the sessions, every student must carry out a project assigned by the faculty and submit the detailed report as per the guidelines.*
Minimum attendance required *for the candidate for appearing in the examination :* ***75%***

SEMESTER – I
Subject: Basics of Textiles
Sub Code: BS – 11

Objectives

- To understand about the textiles.
- To understand about the different textile fibers.
- To understand the process of textile yarn manufacturing.
- To understand the process of fabric manufacturing and processing.

Unit – I

Introduction to textile fibers - Classification of textile fibers: natural and manmade fibers - Properties of textile fibers.

Unit – II

Favorable and Unfavorable Properties of Natural and Manmade Fibers: Cotton, Silk, Wool, Flax, Hemp, Rayon, Polyester, Nylon, Acrylic etc.

Unit – III

Introduction to yarn manufacturing process: ring spinning, open end spinning – Classification of textile yarns – Yarn twist – Manufacture of sewing threads.

Unit – IV

Fabric manufacturing process: weaving vs. knitting – Weaving: definition, classification of looms – Brief about shuttle looms and shuttle-less looms – Basic weave of woven fabric – Knitting: definition, classification – Basic knit structures - Comparison of properties of woven and knitted fabrics

Unit – V

Textile wet processing: pretreatment process of woven and knitted cotton fabric – De-sizing – Scouring – Bleaching – Mercerization – Dyes: classification of dyes – Dyeing: methods of dyeing – Printing: stages and methods of printing – Textile finishes: classification.

Suggested Reading and Reference Materials

- Fabrics Science - Joseph J. Pizzuto
- Textiles from Fiber to Fabrics - B.P. Corbmann.
- Understanding Textiles - Phyllis G. Tortora, Billie J. Collier
- Introductory Textile Science - Joseph J. Pizzuto
- Fibre Science - Marjory Joseph

SEMESTER – I
Subject: Introduction to Fashion
Sub Code: IF – 12

Objectives

- To provide a comprehensive understanding of fashion as a design activity.
- To provide a comprehensive understanding of fashion as a socio-cultural phenomenon.
- To make them understand the relevance of fashion as a business activity.

Unit – I

Definition of fashion and its terminologies - Elements of design: line, shape, color, texture, form, space, pattern - Principles of design: balance, emphasis, proportion, rhythm, harmony.

Unit – II

Factors influencing fashion: social, cultural, economical, political, technological - Fashion cycle - Theories of fashion adoption - Fashion leaders and followers.

Unit – III

Fashion subculture: punks, hippies, minimalists, grunge, gothic, and heavy metals - Fashion capitals: Milan, London, Paris, Tokyo & New York - International fashion designers and their contributions from each of the fashion capitals.

Unit – IV

Apparel categories: formal wear, casual wear, sportswear, active sportswear, swim wear, beach wear, street fashion, intimate wear, occasion wear, club wear, sleep wear, ethnic wear.

Unit – V

Fashion value and supply chain - Fashion trend forecasting and the role of journals, magazines, services & websites in forecasting - Career opportunities in fashion.

Suggested Reading and Reference Materials

- Fashion - Concept to Consumer- Gini S. Frings
- Inside Fashion Design- Tate S. L.
- Changing Styles in Fashion – Polly Tribolet
- Fashion: The Mirror of History- Michael & Ariane Batterberry
- Fashion People- Palmer
- Dictionary of Fashion- Fair Child's
- Fashion Forecasting- Perna. R
- Costume & Fashion – J. Laver
- Creative Fashion Presentations – Polly Guerin

SEMESTER – I
Subject: Elements and Principles of Design
Sub Code: EP – 13

Objectives

- To develop understanding of elements of design.
- To develop understanding of principles of design.
- To develop sense of composition.
- To develop skills of visualization & communication.
- To develop understanding of non-tangible & tangible aspects of design.

Unit - 1

Introduction to various dry art media: pencils, color pencils, charcoal, sketch pens, markers, pens and crayons - Introduction to basic sketching techniques-drawing with different sketching techniques, free hand sketching of objects of day-to-day life.

Unit - II

Design elements: line, shape, form, space, colour and texture. Different types of lines and shape & its characteristics. Use of line in clothing according to body shapes. Optical illusions created by various combinations of lines.

Unit III

Colour: primary, secondary and tertiary colours, dimension of colour, colour schemes - Colour theory: prang colour system & munsell - Colour harmony: related & contrasting colour harmonies & its sub divisions.

Unit IV

Study of texture: types of textures, categories of texture, psychological & visual association.

Unit V

Study & understanding of principles of design: balance (formal and informal), emphasis, rhythm (repetition, gradation, radiation), contrast, proportion, harmony (unity and variation)

Suggested Reading and Reference Materials

- Basic Principle of Design – Manfred Maier, Van Nostrand Reinhold, 1977.
- Exploring the Elements of Design (Paperback) - Mark A. Thomas, Poppy Evans: Publisher: Cengage Learning, 2012
- Three Dimensional Designs - Richard K. Thomas, Van Nostrand Reinhold Co, 1969.
- Elements of Design - Rowena Reed Kostellow, Publisher: Prince AP. Edition: 2002
- Exploring Visual Design - The Elements and Principles, Joseph Gatto, Albert Porter, Jack Selleck. Davis Publications. 2000.
- Basic Design: The Dynamics of Visual Form - Maurice de Sausmarez, 2007
- Munsell: A Grammer of Color – Albert H Munsell & Faber Birren
- Exploring Visual Design: The Elements and Principles, by Albert A Porter, Davis Publications Inc., U.S. 1974

SEMESTER – I
Subject: Pattern Making - I (Women's Wear)
Sub Code: PM – 14

Objectives

- To understand the basic concepts of pattern making.
- To gain the knowledge of drafting the basic pattern set.
- Draft the pattern for different types of bodices with dart manipulation techniques.
- Draft the patter for different skirts, sleeves and collars.

Unit – I

Understanding of human body - Measuring techniques and pattern terms - Basic bodice front and back sloper development - Dart manipulation: dart manipulation by different method, styling through dart manipulation.

Unit – II

Development of basic skirt and patterns for different skirt variations - Development of basic sleeve and patterns for different sleeve variations - Development of collar and its variations

Unit – III

Development of TORSO patterns (Full Dress) & variations – Muslin Test

Unit – IV

Kimono sleeve and its variations - Muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)
Raglan sleeve and its variations – Muslin test fit on Dress form for spot evaluation (submission of paper pattern along with muslin)

Unit – V

Trousers and its variations - Muslin test fit on Dress form for spot evaluation (submission of paper pattern along with muslin)

Suggested Reading and Reference Materials

- Designing Apparel through the Flat Pattern - Kopp, E. Rolfo, V. and Zelin (Fairchild Publications, Inc. 1960.)
- How to Draft Basic Patterns - Kopp, E., Rolf, V., and Zelin (Fairchild Publications, Inc. 1968.)
- New Fashion Areas for Designing Apparel through the Flat Pattern - Kopp, E., Rolfo, V., and Zelin (Fairchild Publications, Inc. 1972.)
- Patternmaking for Fashion Design - Armstrong, Helen Joseph (Harper & Row Publications)
- Pattern Cutting and Making Up: The Professional Approach - Martin M. Shoben & Janet P. Ward
- More Dress Pattern Designing - Natalie Bray

SEMESTER – I
Subject: Garment Construction – I (Basics)
Sub Code: GC – 15

Objectives

- To understand the basic concepts of sewing.
- To gain the knowledge about the sewing parts and its functions.
- To understand the different types of seams and seam finishes.
- To understand the process of various garment manufacturing and its techniques.

Unit – I

Sewing machine: parts of sewing machine and its functions (SNLS) – Threading of sewing machines - Stitching practice – Paper exercises - Introduction of different types of seams: super imposed seams, bound seams, flat seams, lapped seams (create 10 samples in seams)

Unit – II

Development of samples of patch pockets with flaps (square pockets, round pockets, hexagon pocket, and v-pocket) - Development of plackets for shirts (create 5 samples for pockets and plackets) - Development of samples for garment components: collar, cuffs, sleeve plackets, pleats, fly (zipper and button fly), welt pockets etc.

Unit – III

Creating samples for different necklines
Creating samples for collars: convertible, peter-pan, mandrin, bertha (square and round bertha)
Creating samples for different types of collars and attaching collars in neckline.

Unit – IV

Design and development of basic bodice with collar - Design and development of basic skirt

Unit – V

Design and development of different types of skirts (minimum two skirts has to be stitched) - Develop a women's garment with collar and sleeve.

Suggested Reading and Reference Materials

- Complete Book of Sewing – Reader's Digest
- Sewing for Fashion Design – F.I.T
- Encyclopaedia of Dress Making - Jewel.R
- Complete Book of Sewing Short Cuts - Claire B. Shaeffer

SEMESTER – I
Subject: Surface Design Techniques – I
Sub Code: SD – 16

Objectives

- To acquaint the students for proper blending of traditional skills with modern trends using various techniques for surface ornamentation and embroidery.
- To make the students blend the traditional skill with modern trends using various techniques for surface ornamentation and embroidery.
- To make the students use different kind of embellishments through style of surface ornamentation and develop a product by embellishing it with beautiful ornamented works

Unit - I

Introduction to various components like materials, instruments, tracing tools etc. required for hand embroidery.

Unit - II

Introduction to machine embroidery and sewing machine attachments

Unit - III

Back stitch, Blanket stitch, Bokhara couching, Bullion stitch, Cable stitch, Cable chain stitch, Chain stitch, Chevron stitch, Coral stitch, Couching, Cross stitch, Cretan stitch, Open chain stitch, Russian chain stitch, Zigzag cable stitch, Roumanian couching, Interlacing stitch.

Unit - IV

Feather stitch, Chained feather stitch, Closed feather stitch, Fern stitch, Fish bone stitch, Fly stitch, Herring bone stitch, Satin stitch, Spiders web, Stem stitch, Roumanian stitch, Overcast stitch, Straight stitch.

Unit - V

Product Development

Suggested Reading and Reference Materials

- Art and Craft Embroidery - Laura Euleur.
- The Grammar of Ornaments - Owen Jones.
- Textile Coloration &Surface Ornamentation - Md Sohanur Rahman Sobuju.

SEMESTER – II

Subject: Indian Embroideries and Traditional Textiles

Sub Code: IE – 21

Objectives

- To familiarize students with traditional textiles of India, application of various techniques in ornamentation.
- To make the students understand the traditional textiles of India, application of various techniques in ornamentation.
- To make the students to transform their ideas into garments by studying, analyzing, & selecting the proper fabric type.

Unit - I

Indian traditional textiles (kasida, chickenkari, kantha, phulkari), Mashroo, Paithani, Himroo, Maharashtrian shalu, Brocades of Banaras, Chanderi, Maheshwari, Baluchari, Andra cotton & silk sari, Bengal cotton sari, Irkal, Kasavu, Kota, Tamil Nadu cotton & silk, Orissa cotton & silk sari variety and availability.

Unit - II

Indian traditional Woven textiles- (kota, baluchaar, brocade, kangiveram, chanderi, tangail) - Colours and motifs used in these Indian traditional textiles - Production processes of various woven Indian textiles – Embroidery: chambarumal, phulkari & bagh, gota patti, zardozi, chikankari, kasuti, kutch, appliqué.

Unit - III

Dyed and printed textiles: bandhej & leheria, block printing of bagaru & sangner, dabu printing, kalamkari, ajrakh, ikat - Indian traditional dyed textiles (Ikat, patola, tie and dye)

Unit - IV

Indian traditional painted textiles: kalamkari, phad painting, pichhwai, madhubani painting, mata ni pachedi, warli - Colours, motifs, stitches used in these Indian textiles.

Unit - V

Traditional embroideries of chamba rumal, kathiawar, kutch, gujarati, sindhi, gold and silver embroidery - Fabric, colours, motifs, stitches used in Indian traditional embroidery - Gold and silver work: lurex, bead work, nakshi, dabka, mukaish, etc.

Suggested Reading and Reference Materials

- Traditional Indian Costumes and Textiles - Parul Bhatanagar. Abhishek Publications, New Delhi, 2004
- Traditional Indian Textiles - J. Gillen & N. Barnard, Thames & Hudson Ltd., London, 2014.
- Handmade in India: A Geographical Encyclopedia of India - Aditi Rajan, & M.P. Rajan, Abbe Ville Press, New York, 2009.
- Saris: Traditional & Beyond - Rita Kapoor Christi, Roli Books, New Delhi, 2013
- A Celebration of Style - Sharada Dwivedi, AJSK Publications, Mumbai, 2000
- Colourful Textiles of Rajasthan - Gulab Kothari, Jaipur Printers, Jaipur, 1995

SEMESTER – II
Subject: Design Perspectives & Communication Skills
Sub Code: DP – 22

Objectives

- Develop an understanding of the Elements and Principles of Design with reference to Apparel.
- Familiarize with different types of design details.
- Can understand the main points of clear standard input on familiar matters regularly encountered in work, college, leisure, etc.
- Can deal with most situations likely to arise whilst travelling in an area where the language is spoken.

Unit – I

Introduction to design - Elements and principles of design: its perspective and application to apparel and lifestyle products.

Unit – II

Understanding the concepts of aesthetics - Role of aesthetics in design and environment - Sensory factors affecting aesthetics and its effects on design (visual, tactile, olfactory etc.) - Design details and specifications with reference to apparel

Unit – III

Communicative English grammar (Refresher)
Concepts relating to structure and semantics of spoken and written English;
Information, Reality and belief;
Mood, Emotion and Attitude;
Meanings in connected discourse

Unit – IV

Neutral English pronunciation-1
Phonetics;
Word stress pattern;
Sentence Stress pattern;
Intonation and Modulation

Unit – V

Oral communications
3-Ts of effective presentation

Suggested Reading and Reference Materials

- Technical Communication Principle and Practice - Meenakshi Raman & Sangeeta Sharma, OUP. Second edition 2011
- Exploring Visual Design: The Elements and Principles - Albert A Porter, Davis Publications Inc., U.S. 1974
- Exploring the Elements of Design (Paperback) - Mark A. Thomas, Poppy Evans: Publisher: Cengage Learning, 2012
- Beyond Design - Keiser and Garner

SEMESTER – II
Subject: Fashion Illustration - I
Sub Code: FI – 22

Objectives

- To understand the importance of anatomical studies as the basis of fashion illustration.
- To develop skills in drawing the human body as a 3d form.
- To impart knowledge on various aspects of fashion figures (croqui)
- To understand the principles of balance and movement of the figure.
- To analyze and choose relevant postures to enhance the co-relation between garment and mood/attitude of the croqui
- To develop both a free distinctive style of drawing combined with analytical skills of visual assessment

Unit – I

Introduction to human anatomy, illustration as visual communication to represent fashion figure Introduction to human anatomy - Illustration as visual communication to represent fashion figure - Fashion proportions - Understanding of movement and balance - Croqui with ball joints.

Unit – II

Drawing of the fashion figure correlating geometric and fleshed out croquis figure analysis of front, side view

Unit – III

Figure analysis of ¾, side, back
Foreshortening
Understanding of guidelines

Unit – IV

Fashion heads, faces, hairstyles
Hands & feet

Unit - V

Identification of garment classification and details

NOTE: Practical Illustrations of A3 Sheets.

Suggested Reading and Reference Materials

- Fashion Sketch Book – Bina Abling.
- Drawing People- Colin Caket
- Fashion Design Illustration - John Turnpenny.
- Fashion Illustration Today – Nicholas Drake.
- Encyclopedia of Fashion Details – Patrick John Ireland.
- Fashion Illustration Techniques- Julian Seaman

SEMESTER – II
Subject: Pattern Making – II (Women's Wear)
Sub Code: PM – 23

Objectives

- Understand advanced and complex concepts in pattern making.
- Produce master patterns.
- Analyse existing garments and reproducing the same.
- Develop one piece pattern by combining the skirt and bodice together.
- Develop bifurcated garments.
- Develop sleeves as an extension of the bodice.

Unit - I

Torso and variations – Muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

Unit - II

Kimono sleeve and its variations - Muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

Unit - III

Raglan sleeve and its variations - Muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

Unit - IV

Trousers and its variations - Muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

Unit - V

Specialized pattern making problems on torso variations & trouser variations - Muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

Suggested Reading & Reference Materials

- Designing Apparel through the Flat Pattern - Kopp, E. Rolfo, V. and Zelin (Fairchild Publications, Inc. 1960.)
- How to Draft Basic Patterns - Kopp, E., Rolf, V., and Zelin (Fairchild Publications, Inc. 1968.)
- New Fashion Areas for Designing Apparel through the Flat Pattern - Kopp, E., Rolfo, V., and Zelin (Fairchild Publications, Inc. 1972.)
- Patternmaking for Fashion Design - Armstrong, Helen Joseph (Harper & Row Publications.)
- Pattern Cutting and Making up: The Professional Approach - Martin M. Shoben & Janet P. Ward
- More Dress Pattern Designing - Natalie Bray

SEMESTER – II
Subject: Garment Construction – II (Women's Wear)
Sub Code: GC – 24

Objectives

- To understand and appreciate different components of garment - necklines, collars, sleeves, sleeves plackets, cuff and pockets.
- To understand the application of different techniques used for garment construction and explore creative application.
- To appreciate quality parameters in Garment Construction.

Unit - I

Necklines and Neckline finishes: creating samples for different necklines and neckline finishes.

Unit - II

Collars: convertible collars, peter pan collar, mandrin collar, bertha collar, notch collar and shawl collar and shirt collar.
Creating samples for different types of collars and attaching collars in neckline.

Unit - III

Plackets: different shirt plackets, sleeve plackets and sleeve cuffs.

Unit - IV

Pockets: different types of pockets

Unit - V

Zippers: slits and flaps
Creating samples for different of zipper attachments, slits and flaps for pockets.

Suggested reading & reference material

- Complete Book of Sewing – Reader's Digest
- Sewing for Fashion Design – F.I.T
- Singer Sewing Step by Step
- Encyclopaedia of Dress Making - Jewel.R
- Book on Practical Construction by Mary Matthews
- Complete Book of Sewing Short Cuts - Claire B. Shaeffer

SEMESTER – II
Subject: Surface Design Technique – II
Sub Code: SD – 25

Objectives

- To introduce surface design as an significant design component.
- To provide basic craft opportunities to practice surface techniques appropriate for apparel.
- To introduce various dyeing, printing & processing techniques.
- To understand, explore and adapt various styles, types and stages of dyeing & printing & wet processing for creation of innovative textile surfaces and finishes.
- To understand tools, equipment & technology of dyeing, printing & wet processing.
- To stimulate sensitivity to colour in textile design.
- To appreciate fabric qualities for end-use in fashion.

Unit - I

Introduction to textile design - Types of designs: design layouts, developing designs for borders, surface, simple motifs and repeats from reference material – Colour: colour ways, mixing & matching colours, applying colour.

Unit - II

Stencil Printing: step by step guide to stencil printing, innovations & exploring techniques - Block & Screen printing: methodology, printing in simple colour & 2 colours for both block & screen printing.
Practical demonstration of block & screen printing

Unit - III

Tie & Dye: presentation of different techniques of tie & dye and products made by these techniques - Dye recipes - Innovation & Exploration.

Unit - IV

Batik: presentation of different types of batik (block, pen, brush) - Traditional batik designs & contemporized ones - Methodology of batik – drawing, tracing, waxing, dyeing & re-waxing.

Unit - V

Exploration & development of swatches geared towards a fashion collection – briefing.

Suggested Reading & Reference Material

- Textile Design - Carol Joyce
- Essential Design – McDermott C, Bloomsbury 1992
- British Craft Textiles – Suiton, Collins 1985
- Textile of the Arts and Crafts Movement – Linda Parry, Thames and Hudson 1988
- Textile Designs – Susan Meller & Joost Elffers, Thames and Hudson 1991
- The New Textiles: Trends and Traditions – Colchester, Thames and Hudson 1991
- Screen Printing – Mara T, Thames and Hudson 1989

SEMESTER – III
Subject: Apparel Sewing Techniques
Sub Code: AS – 31

Objectives

- To study about sewing machine parts functions and its applications.
- To know the specialized machines used in garment industry.

Unit - I

Introduction to garment industry process details - Fabric inspection: 4 point system - Trims: sewing thread, button, zipper, interlining, snap fastener, shoulder pad, labels, and hangers - Spreading: definition, methods, and requirements of the spreading process - Concepts of spreading mode - Marking: definition, purpose, methods and efficiency of a marker plan.

Unit - II

Interlining: definition, types - Fusing: definition, fusing equipment - Cutting: definition, cutting process - Machine: hand shear, straight knife, band knife, computerized controlled – Notcher - Drills and thread marker - Quality aspects of cutting.

Unit - III

Sewing machine: SNLS machine and its parts – Working principle of chain, over lock and flat lock - Stitch: types, properties and application - Some special machines: bar tack, button hole, button fixing machine and feed of arm machine - Sewing machine attachments. Common problem and remedies

Unit - IV

Stitching mechanism: bevel gear, crank, tensioning device, take up lever, needle and needle bar, pressure foot, feed dog, throat plate, bobbin, bobbin case and bobbin hook, looper and spreader, threading finger, tongue - Feeding mechanism - Seam: definition and classification.

Unit -V

Apparel production system: assembly line and unit production - Garment finishing: Pressing: purpose, categories, methods and pressing equipment's - Packing: apparel packing system.

Note: ½ Day Garment Factory Visit

Suggested Reading and Reference Materials

- The Complete Book of Sewing - Besty Hosegood, Dorling Kindersley Ltd. 2006
- Introduction to Clothing Manufacture - Cooklin, G., Hayes, S. & McLoughlin, Oxford: Blackwell Publishing, 2006.
- The Technology of Clothing Manufacture - David J. Tyler., Harold Carr & Barbara Latham's, Oxford: Blackwell Publishing, 2008
- Apparel manufacturing Hand book – Analysis, Principles and Practice - Jacob Solinger, Columbia Boblin Media Corp. 1988
- Apparel Manufacturing - Ruth E. Clock. & Grace I. Kunz. Pearson Education. 2005.

SEMESTER – III
Subject: Fashion Studies
Sub Code: FS – 32

Objectives

- To understand the relevance of forecasting as a tool of business generation in the fashion business.
- To understand forecasting as a tool to understand consumer behaviour.
- To observation and analyse factors that can influence trends
- To understand the methodology of fashion forecasting.
- To develop skills in interpretation of forecasting and its application to different levels of fashion business.

Unit - I

Fashion forecasting: definition, need and types
Trend spotting
Environmental scanning
Zeitgeist

Unit - II

Fashion cycle as a prelude to forecasting.
Recycling of fashion ideas
Fashion, Fads and Classics
Consumer segmentation

Unit - III

Process of fashion forecasting
Elements of fashion forecasting: color, fabric and silhouettes.
Factors influencing on color and fabric related to forecasting.

Unit - IV

Trend forecasting at branded companies.
Trend forecasting for store brands
Trend forecasting for private labels

Unit - V

Apparel Classification in terms of gender, age, size, styling, occasion and pricing.

Suggested Reading and Reference Materials

- Beyond Design - Sandra Keiser & Myrna B.Garner
- Dynamics of Fashion - Elaine Stone
- Fashion Forecasting - Evelyn L Brannon
- Fashion Forecasting - Rita Prerna

SEMESTER – III
Subject: Fashion Illustration - II
Sub Code: FI – 33

Objectives

- To develop skills in fashion model drawing (live model)
- To understand the application of illustration in the context of the global and domestic fashion industry
- To apply fashion components to develop a uniquely, individual style of illustration
- To represent garments through flat working drawings
- To understand kids' croqui proportions with respect to age groups and to incorporate in the croqui relevant postures, attitude & style.
- To assess the components in children's wear design & line planning for the same.
- To study the principles of men's fashion figure drawing
- To interpret relevant attitude & style in men's fashion figure through stylization
- To study the fashion components in menswear style & line planning.

Unit - I

Introduction to fashion model drawing to understand the proportion, volume, balance and basic anatomy. Introduction of drawing garment components, details and garment categories.

Unit - II

Explore different media as a tool for rendering or stylized croqui and garment, details of surfaces.

Unit III

Design Process includes mood board, client profile, material and swatch board. Introduction of flat working drawing, incorporating, working drawing, flat with design process.

Unit IV

Introduction to illustration of children croquis of different ages – postures, stylization
Design conceptualization for children's wear – flat drawings

Unit V

Introduction to male croquis – stylization
Design conceptualization for men's wear – flat drawings

Note: Practical Illustration – Based Design Project

Suggested Reading and Reference Materials

- Advanced Fashion Sketch Book – Bina Abling
- Fashion Illustration – Colin Barnes
- Figure Drawing for Fashion I, II - Isao Yajima
- Fashion Illustration Today – Nicholas Drake
- Fashion Illustration Now - Laird Borrelli
- Fashion Illustration – Steven Stipelman
- Fashion Art for the Fashion Industry – Rita Gersten

- Fashion Design in Vogue - William Packer

SEMESTER – III

Subject: Pattern Making - III (Men's and Kids wear)

Sub Code: PM – 34

Objectives

- Understand advanced and complex concepts in pattern making.
- Produce master patterns.
- Analyse existing garments and reproducing the same.
- Understand & develop outerwear pattern.
- Develop contoured garments
- Develop two piece sleeves

Unit - I

Jacket two piece sleeve coat collar, shawl collar - Type of submission: muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

Unit - II

Jacket block and Jacket variation – Type of submission: muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

Unit - III

Waist coat and Overcoat – Type of submission: muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

Unit - IV

Build-up necklines - Capes and Hoods - Type of submission: muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

Unit - V

Corset and Bustier – Type of submission: muslin test fit on dress form for spot evaluation (submission of paper pattern along with muslin)

Suggested Reading and Reference Materials

- Designing Apparel through the Flat Pattern - Kopp, E. Rolfo, V. and Zelin (Fairchild Publications, Inc. 1960.)
- How to Draft Basic Patterns - Kopp, E., Rolf, V., and Zelin (Fairchild Publications, Inc. 1968.)
- New Fashion Areas for Designing Apparel through the Flat Pattern - Kopp, E., Rolfo, V., and Zelin (Fairchild Publications, Inc. 1972.)
- Patternmaking for Fashion Design - Armstrong, Helen Joseph (Harper & Row Publications.)
- Pattern Cutting and Making up: The Professional Approach - Martin M. Shoben & Janet P. Ward
- More Dress Pattern Designing - Natalie Bray
- Fabric, Form and Flat Pattern Cutting - Winifred Aldrich
- Pattern Drafting for Dress Making - Helen Stringer

SEMESTER – III
Subject: Garment Construction - III (Men's and Kids wear)
Sub Code: GC – 35

Objectives

- To learn and apply utility of various components in a garment
- To explore the different techniques used for quality application in garments
- To understand the utility of different techniques used for garment construction which can also be used as design features
- To understand, explore and apply various techniques to create a fitted, well-finished women's upper garment (Top/ Blouse) and trouser.
- To appraise and incorporate quality parameter in garment construction

Unit - I
Neckline variations - Collar variations - Different pockets and flaps – Plackets variations

Unit - II
Sleeve variations – Sleeve plackets – Cuff variations - Waist band

Unit - III
Shirt assembly

Unit - IV
Trouser assembly

Unit - V
Waistcoat assembly

Suggested Reading and Reference Materials

- Complete Book of Sewing – Reader's digest
- Sewing for Fashion Design – F.I.T.
- Singer Sewing Step by step
- Encyclopaedia of Dress Making – Jewel. R
- Marry Matthews Book on Practical Construction
- Complete Book of Sewing Shortcuts – Claire B. Shaeffer
- Pattern Making – Joseph Amstrong

SEMESTER – III
Subject: CAD in Fashion - I
Sub Code: CA – 36

Objectives

- To inculcate required skills to work in the windows environment.
- To understand browser basics, search engine basics and have free hand on Internet surfing.
- To acquire required knowledge of word processing, spread sheets and presentation software effectively.
- To acquire basic understanding & skills of vector graphics software.

Unit - I

- Working with Ms-Word:
  - Page formatting
  - Usage of colour, fonts, background, layout related to documents
  - Styling
  - Text and Table formatting
  - Mail merge
  - Inserting and linking images, clipart and other objects

Unit - II

- Working with Ms-Power Point:
  - Setting up presentation
  - Page formatting
  - Drawing tools
  - Graph and charts
  - Running slide show
  - Applying animation & transition.

Unit - III

- Working with Ms-Excel
  - Workbook & Worksheet Concepts
  - Basic data analysis
  - Graphical representation of data

Unit IV

- Understanding of vector graphics

Unit V

- Internet access, E-mail access, Printing and scanning

Suggested Reading and Reference Materials

- Computer Fundamental Ms-Office: including Internet & Web Technology - Anupama Jain and Avneet Mehra, 2010.
- Computer Fundamentals: Concepts, Systems & Applications - Sixty Edition, Sinha

P.K and Priti Sinha, BPB Publication.

SEMESTER – IV

Subject: Fashion Marketing and Retailing

Sub Code: FM – 41

Objectives:

- To enable students to gain better understanding on markets and marketing concepts
- To familiarize them with the distinctive aspects between fashion and generic marketing
- To enable students to classify markets.
- To familiarize them with research methods
- To enable creation of market oriented designs

Unit - I

Introduction to marketing: definition, philosophy
Core concepts of marketing
Types of marketing
Overview of fashion in the context of marketing

Unit - II

Fashion marketing environment
Marketing process: STP model
Product: product attributes, different product levels, product life cycle

Unit - III

Pricing: methods and strategies
Promotion: promotion mix and strategy

Unit - IV

Place: logistics and supply chain
Concepts of consumer buying behaviour
Service marketing

Unit - V

Brand and branding process
New product development
Marketing research process

Suggested Reading and Reference Material

- Principles of Marketing - Philip Kotler
- Consumer Behaviour – Schiffmann & Kanuk
- Marketing Research: Text & Cases – Boyd, Westall & Stasch
- Fashion Marketing - Janet Bohdanowicz & Liz Clamb

SEMESTER – IV
Subject: Visual Merchandising
Sub Code: VM – 42

Objectives:

- Objectives of Visual Merchandising in Retail Business.
- Visual merchandising is the art of techniques that displaying the fashion, apparel and other products with innovative or creative designs or ideas to increase the retail store's customers and also to maximize the sales.

Unit - I

Define and purpose of visual merchandising
Important of visual merchandising
Role and responsibility of visual merchandiser
Types of display and display setting

Unit - II

Line and composition
Colour and texture
Lighting and lighting systems

Unit - III

Elements of visual merchandising
Types of window display
Types of store layout

Unit - IV

Mannequins: types
Alternative to mannequins
Fixtures and props

Unit - V

Familiar symbols
Graphics and signage
Visual merchandising and planning

Suggested Reading and Reference Materials

- Visual Merchandising - Tony Morgan, 2nd edition Paperback–2011
- Contemporary Visual Merchandising and Environmental Design - Professor Emeritus & Ellen Diamond Adjunct Faculty, Jay Diamond, 2006
- Visual Merchandising - Swati Bhalla, Anuraag S, 2010
- Visual Merchandising: Windows and in-store displays for retail - Tony Morgan, Third Edition.

SEMESTER – IV
Subject: CAD in Fashion - II
Sub Code: CA – 43

Objective

- To impart training of different aspects of design ideas in CAD and editing in raster graphics as applied in the garments industry by students.

Unit - I

Adobe Photoshop, working with images and basic selections, multiple images, rulers, guides & grids, adjusting colour with adjustments, getting started with layers and painting commands, understanding the background layer, creating, selecting, linking & deleting layers, introduction to blending modes.

Unit - II

Photo basics, blending modes, painting in Photoshop using the brush tool, working with colours & swatches, creating & using gradients, creating & working with brushes

Unit - III

Photo retouching and colour correction, the red eye tool, the clone stamp tool, the patch tool & the healing brush tool, the spot healing brush tool, the colour replacement tool, adjusting levels, adjust curves, non-destructively, with adjustment layers.

Unit – IV

Working with colours, colour settings, colour palette. Colour editing foreground and background, creating text effects, applying gradients to text.

Unit-V

Using channels and masks, using layers, saving and exporting images, printing in Photoshop

Note: Create logo, invitation card, visiting card, poster etc.

Suggested Reading & Reference Materials

- Adobe Photoshop CS6 Classroom in a Book - Kordes Adobe Creative Team
- Adobe Photoshop CS6 Book for Digital Photographers - Scott Kelby
- Adobe Photoshop CC on Demand - Steve Johnson, Perceptions Inc.

SEMESTER – IV
Subject: Portfolio Development
Sub Code: PD – 44

Objectives:

- To display the various projects and assignments undertaken by the student.
- To develop a portfolio which is the reflection of own design philosophy.
- To reflect various inputs received both creative and technical inputs so far.
- To create the record the appropriate creativity and ideas of the field, where the student is interested.

Contents:

1. The students will refer to their work/projects/assignments undertaken during earlier semesters. This work should be digitized and edited for preparation of final portfolio.
2. In addition, different projects, surveys and documents etc. too would be available for reference. The industry internship experience too has to be included in the portfolio.
3. The design philosophy or preferences must be manifested in the form of an initial write up.
4. All design projects undertaken by the student must be included in a very brief and comprehensive presentation.
5. Effective presentation techniques must be employed along with suitable graphics and visual references.
6. Any other material developed earlier or at present for various projects must also be included.
7. Understanding of the industry must also be presented by special projects undertaken for research, market survey and case studies etc.
8. A brief CV related to the credibility of the students must be included in the portfolio with photo.

Suggested Reading and Reference Materials

- Promostyl
- WSGN

SEMESTER – IV
Subject: Design Collection (Final Project)
Sub Code: DC – 45

Objectives:

- Students have to carry out a range of ensembles incorporating the detailed design methodology, research & process.
- Students have to give their presentation in front of external jury members in form of show casing the collection as per guide by subject faculty for presentation. Also students advised to prepare printed documents of fashion project collection replica of portfolio in printed well finished documents form.

Design Brief

- The Design Collection is the culmination of various inputs imbibed over 3 semesters ranging from creative exposure and sensitization to technical expertise. In upholding standards of both national and international benchmarking in fashion design, the collection should reflect originality, creative flair with in-depth conceptualization and implementation of the design process combined with technical strength. The focus should be on good design that is an ideal blend of creativity with function.

The student is required to:

1. Design three to five ensembles suitably accessorized.
2. The Collection must not exceed beyond Rs 25,000/- for the garments and Rs 10,000/- for the accessories.
3. Stage impact must be kept in mind in terms of style, colour, details and overall impact.
4. Keep in mind the total presentation as a class and avoid repetitive styles, silhouettes and colours.
5. Each collection should ideally have a target market and could be visualized for a specific occasion with a distinctive look. Looks and styles that replicate existing designs or echo past collections should be avoided.
6. Attempt a good fit with a clean finish for impeccable design quality.

The students may choose to specialize in any of the areas focusing on women's wear, menswear or children clothing. Textiles may be combined with knits, leather or any other suitable material, while ensuring that the focus is on the extensive and prime usage of woven fabric. The collection could fall in any one of the categories:

1. Sportswear
2. Eveningwear
3. Ethnic collection
4. Maternity wear
5. Avant Garde
6. Institutional Clothing

Contents:

1. Theme & inspiration selection (create boards)
2. Create mood board and colour board
3. Draw sketches with rendering
4. Pattern making, cutting & construction
5. Photo-shoot
6. Display in jury evaluation.

Rules and Regulations

1. Design prototypes should be cut, sewn and finished in the Institute offering this course with the exception of some special embellishments and finishes. For specific skills available outside the Institution premises, the guide should be informed in advance and written permission sought.
2. Construction and finishing of the garment should be of excellent quality.
3. Any collection suspected of being constructed or developed outside the Institute will be loosed the marks from the jury evaluation.

Mentors:

Each student will be guided by and attached to a mentor. However they are free to consult other faculty members and keep their mentor informed. No final decision will be taken without consulting the mentor. Mentors will supervise the progress of the collection on a daily basis. It is the student's responsibility to relay all information and feedback from all sources to the mentor.

LBS SKILL CENTRE

Course Title	**CERTIFICATE - LED DISPLAY BOARD (SCROLLING DISPLAY)**
Abbreviation of Course Title	CLDB
Duration of the course in Hours	70 Hrs.
Duration of the course in Months	2 Months
Course Fees	5000
Eligibility	SSLC

About the Course:

This certificate course provides comprehensive training in LED scrolling display technology covering the fundamentals, practical skills and techniques required to design, install, program and maintain LED scrolling displays. Participants will gain hands-on experience through practical exercises and equipping them with the knowledge and skills required for a career in the LED display industry.

Objectives of the course:

1. To understand the fundamentals of LED display board, scrolling display systems.
2. To provide trainees with the necessary knowledge to design, install, program and maintain LED scrolling displays.

Scheme of Study

Subject Code	Name of the subject	Theory (Hrs.)	Practical (Hrs.)	Theory (Hrs.)
CLDB	**CERTIFICATE - LED DISPLAY BOARD (SCROLLING DISPLAY)**	30	40	70

Syllabus of the course

Module 1 (Theory) : Introduction to LED Technology

- Fundamentals of LED Display
- How LEDs work
- Applications of LEDs
- LED Characteristics and Specifications

Module 2 (Theory) : Basic Electrical & Electronics

- Fundamentals of Electrical & Electronics
- Basic Components used in Electronic Circuit Boards
- AC & DC Power Supplies, SMPS

Module 3 (Practical) : Hands-on experience

- Measurement & Analysis of Electrical quantities
- Identification and Testing of components.

Module 4 (Theory) : LED Scrolling Display Boards

- LED Display board Architecture

- LED Modules and Panels
- Control Systems and Driver Boards
- Power Supply Units
- Scrolling display board programming & software applications

Module 5 (Practical): Hands-on experience

- Assembling & Programming of LED Display Modules
- Manufacturing of scrolling display boards
- Data upload using software applications
- Testing and Trouble shooting of LED scrolling display boards
- Testing and trouble shooting of LED display

Method of Evaluation:

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions, every student must carry out a project assigned by the instructor and submit the report. Minimum Attendance required for the candidate to appear for examination: 75%

LBS SKILL CENTRE

Course Title	**CERTIFICATE - SOLAR INSTALLATION TECHNICIAN**
Abbreviation of Course Title	CSIT
Duration of the course in Hours	70 Hrs.
Duration of the course in Months	2 Months
Course Fees	5000
Eligibility	SSLC

About the Course:

This certificate course provides a comprehensive understanding of solar energy technologies, installation practices, and relevant skills necessary for a career as a Solar Installation Technician. Participants will gain hands-on experience through practical exercises and equipping them with the knowledge and skills required for a career in the Solar Installation & Maintenance.

Objectives of the course:

1. To understand the fundamentals of Solar Power systems.
2. To provide trainees with the necessary knowledge to identify different types of solar PV systems and their components.
3. To demonstrate proficiency in the safe installation of PV modules and implement routine maintenance practices to ensure optimal performance and longevity of PV systems.

Scheme of Study

Subject Code	Name of the subject	Theory (Hrs.)	Practical (Hrs.)	Theory (Hrs.)
CSIT	**CERTIFICATE - SOLAR INSTALLATION TECHNICIAN**	30	40	70

Syllabus of the course

Module 1 (Theory) : Introduction to Solar Energy

- Fundamentals of Solar Radiation & Utilization
- Types of Solar Power Systems
- How PV modules work in Solar Energy Systems
- Characteristics and Specifications of Solar PV Modules

Module 2 (Theory) : Basic Electrical & Electronics

- Fundamentals of Electrical & Electronics
- Basic Components used in Electrical Power Systems
- Basic Components used in Electronic Circuit Boards
- AC & DC Power Supplies, SMPS, Inverters, UPS
- Power conversion & Termination Technics

Module 3 (Practical) : Hands-on experience

- Identify electrical measuring and testing equipment's

- Measurement & Analysis of Electrical quantities
- Identification and Testing of Electrical & Electronic components.

Module 4 (Theory) : SOLAR POWER PRODUCTION

- Identify a Solar PV system & Architecture
- Types of SOLAR Modules and Panels
- Solar Panel Interconnection & Termination
- Power Distribution – Control Panels and Inverters
- Monitoring of Solar PV modules
- Safety guidelines and regulations for solar installations

Module 5 (Theory) : SOLAR SYSTEM DESIGN & SIZING

- Site Assessment, Shading Analysis,
- Load Assessment and Energy Audit
- Sizing of PV systems based on energy needs

Module 6 (Practical): Hands-on experience (Installation Techniques and Practices)

- Mounting systems for PV arrays (roof, ground, tracking systems)
- Electrical wiring and interconnection of PV modules
- Customization of Solar Power systems
- Testing and Trouble shooting of Solar PV Modules
- Monitoring system performance and data analysis
- Safety procedures during maintenance and repair
- Routine maintenance practices for PV systems

Method of Evaluation:

Academic evaluation should be based on a continuous evaluation procedure. After completing all the sessions, every student must carry out a project assigned by the instructor and submit the report. Minimum Attendance required for the candidate to appear for examination: 75%