BACHELOR OF SCIENCE (TEXTILE AND FASHION DESIGNING)

VISION

To create globally-competitive and socially responsible graduates for the Textile and Garment Industry through a strong emphasis on integrated education, innovative hands on training, upgraded skills and Industrial Linkages.

MISSION

- To enlighten the students about the latest technology in Apparel and Textile Industries through value-based education, innovative practices and multi-disciplinary approach.
- To develop the entrepreneurial skills among the students for entrepreneurial ventures by providing infra-structure, human resource and consultancy.

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

PEO 1: To demonstrate technical competencies in their profession by applying basic knowledge and experimentation skills.

PEO 2: To identify the manufacturing problems and provide practical and innovative solutions.

PEO 3: To enable the students to bridge the gap between theoretical concepts and practical work for profitable operation of textile and apparel industry.

PROGRAMME OUTCOMES (PO)

After completion of the programme, the graduates will be able to

PO 1: Identify the techniques to produce different fabrics and creative garments by various techniques, fashion sketching, pattern drafting, draping and construction.

PO 2: Create, select and apply appropriate software techniques and modern tools for the embellishment of garments.

PO 3: Evaluate various apparel production techniques, merchandising and marketing strategies for Boutique management and export services.

PO 4: Assess the fabric and garment quality by standard testing procedure to ensure the product sustainability.

PO5: Identify and solve Industrial problems in Textile and Apparel sectors

PROGRAMME SPECIFIC OUTCOMES (PSO)

After completion of the programme, the graduates will be able to

PSO1: Demonstrate the fundamental concepts in the areas of spinning, weaving, knitting, processing, fashion sketching, pattern making, draping and garment making in Textile and Apparel Industry.

PSO2: Assess the principles of sewing production, Fabric designing skills and testing standards of the fabric and garment needed for sustainable product development.

PSO3: Create and select computational platforms to develop Fashion designing and portfolio in Textile and Garment sectors.

PSO4: Assess the apparel production techniques, product development, garment costing and marketing strategies in Textile/Fashion business to manage multi disciplinary environments.

PSO 5: Analyze the Technical and Environmental problems prevailing the industries and also to demonstrate social and ethical responsibilities relevant to textile and garment industries.

REGULATIONS

ELIGIBILITY

A candidate who has passed in Higher Secondary Examination (Academic stream or Vocational stream) under Higher Secondary Board of Examination, Tamilnadu as per norms set by the Government of Tamilnadu or an Examination accepted as equivalent thereto by the syndicate, subject to such conditions as may be prescribed thereto are permitted to appear and qualify for the **Bachelor of Science in Textile and Fashion Designing degree examination** of this university after a course of study of three academic years.

DURATION OF THE COURSE

The course shall extend over a period of three years comprising of six semesters with two semesters in one academic year. There shall not be less than 90 working days for each semester. Examination shall be conducted at the end of every semester for the respective subjects.

MAXIMUM DURATION FOR THE COMPLETION OF THE UG PROGRAMME

The maximum duration for completion of the UG Programme shall not exceed 12 semesters.

SCHEME OF EXAMINATION

Subject Code	Subject	Hrs of Instruction	Exam Duration (Hrs)	Maximum Marks			Credit Points
				CA	CE	Total	
First Semester							
Part I							
18UTALB101/ 18UHILB101/ 18UFRLB101/	Tamil I / Hindi I/ French I/	5	3	25	75	100	3
Part II							
18UENLB101	General English I	5	3	25	75	100	3
Part III							
18UTFM101	Core I : Textile Fibres and yarn	5	3	25	75	100	4
18UTFA101	Allied I : Fundamentals of Apparel Designing	3	3	25	75	100	2
18UTFMP101	Core practical I : Textile Fibres and yarn	3	3	40	60	100	3
18UTFMP102	Core practical II : Fashion Sketching	3	3	40	60	100	3
18UTFAP101	Allied practical I : Fundamental of Apparel Designing	4	3	40	60	100	2
Part IV							
18UVE101	Value Education I: Yoga	2	3	25	75	100	2
	Total	**30**				**800**	**22**
Second Semester							
Part I							
18UTALB201/ 18UHILB201/ 18UFRLB201	Tamil II/ Hindi II/ French II/	5	3	25	75	100	3
Part II							
18UENLB201	General English II	5	3	25	75	100	3
Part III							
18UTFM201	Core II : Traditional Indian Costume and Textiles	4	3	25	75	100	4
18UTFM202	Core III : Apparel Production Machineries	4	3	25	75	100	4
18UTFA201	Allied II: Fashion Designing	3	3	25	75	100	2
18UTFMP201	Core Practical III : Fashion Illustration	3	3	40	60	100	2
18UTFAP201	Allied Practical II : Fashion Designing	4	3	40	60	100	2
Part IV							
18UVE201	Value Education II: Environmental Studies	2	3	25	75	100	2
	Total	**30**				**800**	**22**

Third Semester							
Part III							
18UTFM301	Core –IV: Fabric Manufacturing Technology	5	3	25	75	100	5
18UTFM302	Core – V: Pattern Making and Grading	5	3	25	75	100	5
18UTFA301	Allied III: Care and maintenance of Textile	5	3	25	75	100	4
18UTFMP301	Core practical IV : Fabric Design Analysis	3	3	40	60	100	2
18UTFMP302	Core practical V : Children's Apparel	4	3	40	60	100	4
Part IV							
18UTFSBP301	SBC I: Practical – Computer Application in Fashion-I	3	3	40	60	100	2
	NMEC I	2	3	25	75	100	2
Non- Credit							
18ULS301	Career Competency Skills I	1	-	-	-	-	-
	Add-on course	2					
	Total	**30**				**700**	**24**
Fourth Semester							
Part III							
18UTFM401	Core – VI : Non Woven & Technical Textiles	5	3	25	75	100	4
18UTFM402	Core – VII : Textile Wet Processing	5	3	25	75	100	5
18UCCTFA401	Allied IV : Apparel Costing and Documentation	5	3	25	75	100	4
18UTFMP401	Core practical VI : Women's apparel	4	3	40	60	100	3
18UTFMP402	Core practical VII : Textile Wet Processing	3	3	40	60	100	2
Part IV							
18UTFSBP401	SBC II : Practical – Computer Application in Fashion-II (100 % Internal Evaluation)	3	3	100	-	100	2
	NMEC II	2	3	25	75	100	2
18UTFIT401	Internship Training	-	-	100	-	100	1
Non - Credit							
18ULS401	Career Competency Skills II	1	-	-	-	-	-
	Add on Course*	2					
	Total	**30**				**800**	**23**

Fifth Semester							
Part III							
18UTFM501	Core – VIII : Quality Assurance of Textile and Apparel	5	3	25	75	100	4
18UTFM502	Core – IX : Apparel Merchandising	5	3	25	75	100	4
18UTFMP501	Core practical VIII- Textile and Garment Testing	4	3	40	60	100	3
18UTFMP502	Core practical IX – Men's apparel	4	3	40	60	100	3
18UTFMP503	Core practical X – Draping for Fashion Designers	4	3	40	60	100	3
18UTFEL501	Apparel Retailing	4	3	25	75	100	4
18UTFEL502	Total Quality Management						
Part IV							
18UTFSBP501	SBC practical III : Fashion E-portfolio (100 % Internal Evaluation)	3	3	100	-	100	2
Part V							
18UTFE501	Extension Activity	-	-	-	-	-	2
Non – Credit							
	Career Competency Skills III	1	-	-	-	-	-
	Total	**30**				**700**	**25**
Sixth Semester							
Part III							
18UTFM601	Core – X : Industrial Engineering in Apparel Industry	5	3	25	75	100	4
18UTFM602	Core – XI : Textile Finishing	5	3	25	75	100	4
18UTFM603	Core – XII : Fashion Business	5	3	25	75	100	4
18UTFMP601	Core Practical XI : Computer Aided Textile and Apparel Designing	3	3	40	60	100	3
18UTFPR601	Project & viva voce	4	-	40	60	100	4
18UTFEL601	Fashion and Visual Merchandising	4	3	25	75	100	4
18UTFEL602	Apparel Production Management						
Part IV							
18UTFSBP601	SBC Practical IV : Printing Techniques	3	3	40	60	100	2
Non - Credit							
	Career Competency Skills IV	1	-	-	-	-	-
	Total	**30**				**700**	**25**
Grand Total						**4500**	**141**

NON MAJOR ELECTIVE COURSE (NMEC)

The department offers the following 2 papers as NMEC for other than the Textile and Fashion Designing students in III and IV semesters.

S.No	Semester	Course Code	Name of the Course
1	III	18UTFNM301	Fashion Art and Design Concept
2	IV	18UTFNM401	Fundamentals of Textiles and Apparel

ADD-ON COURSE:

The department offers the following 2 papers as Add-on Course for III and IV semesters.

S.No	Semester	Course Code	Name of the Course
1	III	18UTFAC301	Beauty care (Practical)
2	IV	18UTFACP401	Fashion photography(Theory)

ELECTIVE I

Students shall select any one of the following subjects as Elective in Fifth Semester.

S. No	Course Code	Name of the Course
1	18UTFEL501	Apparel Retailing
2	18UTFEL502	Total Quality Management.

ELECTIVE II

Students shall select any one of the following subjects as Elective in Sixth Semester.

S. No	Course Code	Name of the Course
1	18UTFEL601	Fashion and Visual Merchandising
2	18UTFEL602	Apparel Production Management

ADVANCED LEARNER COURSE:

The students shall choose any one of the following Advanced Learner Course during their Fourth and Fifth semester.

S.No	Semester	Course Code	Name of the Course
1	IV	18UTFAL401	International Trade and Documentation
2	IV	18UTFAL402	Eco Textile
3	V	18UTFAL501	Fashion Entrepreneurship
4	V	18UTFAL502	Advanced Technical Textile

FOR COURSE COMPLETION

Students shall complete

- Language subjects (Tamil/ Hindi/ Malayalam/ French and English) in I and II Semesters.
- Value Education: Yoga and Environmental Studies in I and II semester respectively.
- Allied subjects in I, II, III and IV Semesters.
- One Add-on Course in their course of study.
- Two Non Major Elective Courses in III and IV semesters
- Four Skill Based Courses in III, IV, V and VI semesters
- Internship Training in IV semester
- Extension activity in V semester.
- Elective subjects in the V and VI semesters.
- Group project at the end of VI semester
- Career Competency Skill in semester III, IV, V and VI

TOTAL CREDIT DISTRIBUTION

S.NO	PART	Total Marks	Total Credits
1.	PART I: Language	200	06
2.	PART II: Foundation English	200	06
3.	PART III : Major, Allied, Elective, Project	3200	110
4.	PART IV: Value Education, SBC, NMEC, Internship Training	900	17
5.	PART V: Extension Activity	-	2
TOTAL		**4500**	**141**

TOTAL CREDIT DISTRIBUTION

S.NO	Component	Total No of Papers	Credit	Total Credits	Total Marks
1	Part I: Tamil	02	03	06	2 X 100 =200
2	Part II: English	02	03	06	2 X 100 = 200
3	Part III: Core Theory	12	51	51	12 X 100 = 1200
4	Part III: Core Practical	11	31	31	11X100 = 1100
5	Part III: Elective	02	04	08	2 X 100 = 200
6	Part III: Allied Theory	04	12	12	4 X 100 = 400
7	Part III: Allied Practical	02	02	04	2 X100 = 200
8	Part III: Project	01	04	04	1 X100 = 100
9	Part IV: Value Education: Yoga and Environmental	02	02	04	2 X 100 =200
10	Part IV: SBC	04	02	08	4 X 100 = 400
11	Part IV: Internship Training	01	01	01	1 X 100 = 100
12	Part IV: Non Major Elective Course	02	02	04	2 X 100 = 200
13	Part V: Extension Activity	-	-	02	-
	Total	**45**		**141**	**4500**

GUIDELINES

1. SUBMISSION OF RECORD NOTE BOOKS AND PROJECT DISSERTATION:

Candidates appearing for Practical Examinations and Project Viva-voce shall submit Bonafide Record Note Books/ Dissertation prescribed for Practical/ Project Viva-voce Examinations, otherwise the candidates will not be permitted to appear for the Practical/ Project Viva-voce Examinations.

2. PASSING MINIMUM AND INTERNAL MARK DISTRIBUTION (Theory, Practical and Project)

A) THEORY

The candidate shall be declared to have passed the Examination, if the candidate secure not less than 40 marks put together out of 100 in the Comprehensive Examination in each Theory paper with a passing minimum of 30 marks in External out of 75.

MARK DISTRIBUTION

Internal Marks Distribution [CA- Total Marks: 25]

Attendance	: 05 Marks
Assignment	: 05 Marks
Internal Examinations	: 15 Marks
Total	**: 25 Marks**

i) THEORY (If Internal Evaluation is for 100 Marks)

The candidate shall be declared to have passed the Examination, if the candidate secure not less than 40 marks out of 100 in the Comprehensive examination (Internal Evaluation only).

Internal Marks Distribution [CA- Total Marks: 100]

Attendance	: 10 Marks
Assignment	: 30 Marks (3 Assignments Compulsory)
Internal Examinations	: 60 Marks
Total	**: 100 Marks**

B) PRACTICAL

The candidate shall be declared to have passed the Examination, if the candidate secure not less than 40 marks put together out of 100 in the Comprehensive Examination in each Practical paper with a passing minimum of 24 marks in External out of 60.

i) Internal Marks Distribution [CA - Total Marks: 40]

Experiments	: 10 Marks
Attendance	: 05 Marks
Record	: 05 Marks
Internal Examinations	: 20 Marks
Total	**: 40 Marks**

ii) External Marks Distribution [CE - Total Marks:60]

Aim	: 05 Marks
Procedure	: 20 Marks
Performance	: 30 Marks
Result	: 05 Marks
Total	**: 60 Marks**

iii) Allied - Computer Practical Marks Distribution

Internal Marks Distribution [CA- Total Marks: 40]

Experiment	: 10 Marks (10-12 Experiments)
Attendance	: 05 Marks
Record	: 05 Marks
Internal Examination	: 20 Marks
Total	**: 40 Marks**

External Marks Distribution [CE- Total Marks: 60]

i) Aim	: 05 Marks
ii) Algorithm/ Flowchart	: 10 Marks
iii) Writing the source code	: 15 Marks
iv) Test and debug the source code	: 15 Marks
v) Displaying the output	: 10 Marks
vi) Result and declaration	: 05 Marks
Total	**: 60 Marks**

C) PROJECT WORK /DISSERTATION

- The project work shall be carried out by group of students in the V semester and has to complete the work at the end of VI Semester.
- Upon completion of the project work/dissertation the candidate will be required to appear for a viva-voce conducted by an external examiner.
- The Student has to attend 3 reviews before completing his/her Project.
- All 3 reviews will be reviewed by Internal Resource Person.
- A candidate failing to secure the prescribed passing minimum in the dissertation shall be required to re-submit the dissertation with the necessary modifications.
- The assessment of students' performance in a semester is calculated by Continuous Internal Assessment (CA.) for 40 marks and External Assessment for 60 marks.

The candidate shall be declared to have passed the Examination, if the candidate secure not less than 40 marks put together out of 100 in the Comprehensive Examination in each Project with a passing minimum of 24 marks in External out of 60.

Internal Mark Distribution [CA - Total Marks: 40 Marks]

Research work done	:	10 Marks
Attendance	:	05 Marks
Samples	:	05 Marks
Review	:	20 Marks (Three reviews)
Total Marks	**:**	**40 Marks**

External Mark Distribution [CE - Total Marks 60Marks]

Research Work Done	:	15Marks
Project report	:	15Marks
Presentation	:	15 Marks
Viva voce	:	10 Marks
Total Marks	**:**	**60 Marks**

3. QUESTION PAPER PATTERN AND MARK DISTRIBUTION

I) THEORY - Question paper pattern and Marks Distribution

PART A - (10x 2 = 20Marks)
Answer ALL questions
Two questions from each UNIT

PART B - (5 x 5 = 25 Marks)
Answer ALL questions
One question from each UNIT with Internal Choice

PART C - (3 x 10=30Marks)
Answer ANY THREE questions
Open Choice 3 out of 5 questions
One question from each UNIT

II) Question Paper Pattern and Mark Distribution – 100% External Evaluation (For 100 marks)

PART – A (10 x 2 = 20 Marks)
Answer ALL questions
Two questions from each UNIT

PART – B (5 x 7 = 35 Marks)
Answer ALL questions
One question from each UNIT with Internal Choice

PART – C (3 x 15 = 45 Marks)
Answer ANY THREE questions
Open Choice – 3 out of 5 questions
One question from each UNIT

(III)THEORY - Question paper pattern and Marks Distribution (100% External Evaluation _ Advanced learner course)

PART – A (10 x 2 = 20 Marks)
Answer ALL questions
Two questions from each UNIT

PART – B (5 x 7 = 35 Marks)
Answer ALL questions
One question from each UNIT with Internal Choice

PART – C (3 x 15 = 45 Marks)
Answer ANY THREE questions
Open Choice – 3 out of 5 questions
One question from each UNIT

IV) - CAREER COMPETENCY SKILLS – I & II

METHODOLOGY OF ASSESSMENT

1. On Line Objective Examination (Multiple Choice questions) - Semester III

- 100 questions-100 minutes
- Twenty questions from each UNIT.
- On line examination will be conducted at the end of the III Semester.

2. Viva Voce- Semester IV

- A Student has to come in proper dress code and he/she should bring 2 copies of Resume for the Viva Voce.
- A student may be asked to
- Give Self Introduction
- Submit the resume to the examiner(s) and answer the questions based on it.
- Speak on any given topic for at least two minutes.
- Give a presentation for 10 minutes on a topic of their choice.
- Sit with other students in a Group for a Discussion.

18UTALB101	Tamil – I:படைப்பிலக்கியங்கள்	பருவம் - I

இப்பாடத்திட்டத்தின் நோக்கங்களாவன:

1. தமிழ்க்கவிதைகளை அறிமுகம் செய்தல் மற்றும் எழுதக் கற்றுக் கொடுத்தல்.
2. சிறுகதைகளின் வழி சமூக நிகழ்வுகளைக் கூறல்.
3. உரைநடை, இலக்கிய வரலாறு, இலக்கணங்களை அறிமுகம் செய்தல்.

Credits: 3 **Total Hours: 50**

UNIT	CONTENTS	Hrs	CO
I	**கவிதைகள்** அ. பொன்.கண்ணகி – வடிகால்கள் - காலம் மாறிப் போச்சு. ஆ. வைரமுத்து – தண்ணீர் தேசம் - கடல். இ. வெ.இறையன்பு– பூபாளத்திற்கொருபுல்லாங்குழல் - சருகுகள் சலசலக்கின்றன ஈ. ஏதேனும் ஒருதலைப்பின் கீழ் புதுக்கவிதை எழுதக்கற்றுக்கொடுத்தல்.	10	CO1
II	**சிறுகதைகள்** அ. பாரததேவி – படிப்பேபடிக்கட்டுகளாகி ஆ. கு.அழகிரிசாமி – ராஜா வந்திருக்கிறார். இ. ஜெயகாந்தன் - பொம்மை ஈ. ஏதேனும் ஒருதலைப்பின் கீழ் சிறுகதை எழுதக்கற்றுக்கொடுத்தல்.	10	CO2
III	**உரைநடை** அ. பா.ஆனந்தகுமார் - இலக்கியமும் பண்பாட்டுமரபுகளும் - உடற்கல்வி ஆ. கல்கி - எம்.எல்.ஏ. கைதிகள்,கல் சொன்னகதை.	10	CO3
IV	**இலக்கியவரலாறு** அ. கவிதைவரலாறு–மரபுக்கவிதை,புதுக்கவிதை,ஹைக்கூ கவிதை. ஆ. உரைநடையின் தோற்றம் வளர்ச்சி. இ. சிறுகதையின் தோற்றம் வளர்ச்சி. ஈ. புதினத்தின் தோற்றம் வளர்ச்சி.	10	CO4
V	**இலக்கணம்** அ. பகுபதஉறுப்பிலக்கணம் ஆ. யாப்பிலக்கணம் (அசை,சீர்,தளை,அடி- வகைகள்) இ. விண்ணப்பம்,அலுவலகம் சார்ந்தகடிதங்கள் எழுதக் கற்றுக் கொடுத்தல்.	10	CO5

Text Book

1	தமிழ்த்துறைவெளியீடு, கே.எஸ்.ரங்கசாமி கலை அறிவியல் கல்லூரி (தன்னாட்சி), திருச்செங்கோடு– 637 215.

COURSE OUTCOMES (CO)

இப்பாடத்தைக் கற்பதன் வாயிலாக மாணவர்கள் பெறும் பயன்களாவன:

CO1	கவிதை எழுதக் கற்றல்.
CO2	சிறுகதைகள் வழி சமூகத்தினைப் புரிந்துகொள்ளுதல்.
CO3	ஊரைநடை அமைப்பைப் புரிந்துகொள்ளல்.
CO4	கவிதை, உரைநடை, சிறுகதைதோற்றம், வளர்ச்சி குறித்து அறிதல்.
CO5	பதத்தின் உறுப்புகள், செய்யுள் உறுப்புகள், கடித வகைகள் ஆகியவற்றை அறிதல்

18UENLB101	GENERAL ENGLISH – I	SEMESTER – I

Course Objectives:

The course aims

- To enhance the vocabulary of the students.
- To improve the language skills of the students.

Credits: 3 **Total Hours: 50**

UNIT	CONTENTS	Hrs	CO
I	**PROSE** A. G. Gardiner - On Habits **GRAMMAR** Noun - Singular or Plural Agreement of verb and subject Fairly and rather **COMMUNICATION SKILLS** Paragraph Writing	**10**	**CO1**
II	**SHORT STORY** Leo Tolstoy - How Much Land Does a Man Need? **GRAMMAR** The Articles Adverbial use of no, not and noun Negative verbs **COMMUNICATION SKILLS** Letter Writing	**10**	**CO2**
III	**PROSE** Stephen Leacock - With the Photographer **GRAMMAR** Concord of Nouns, Pronouns and Possessive Adjectives Difficulties with Comparatives and Superlatives **COMMUNICATION SKILLS** Dialogue Writing	**10**	**CO3**
IV	**POETRY** Sonnet CXVI **GRAMMAR** Confusion of Participles: Active voice and Passive voice Prepositions **COMMUNICATION SKILLS** Sentence Sequence	**10**	**CO4**
V	**SHORT STORY** O. Henry - The Gift of the Magi **POETRY** John Donne – A Hymn to God the Father **GRAMMAR**	**10**	**CO5**

	Tenses Simple and progressive(continuous) forms of present tense Simple and progressive (continuous) forms of past tense The perfect tense The progressive form of the perfect Tenses in adverb clauses referring to the future Tenses in adjective clauses referring to the future		

Text Book	
1	*Mohammad Aslam and TakA.H.* 2009. **Experience and Emotion, An Anthology of Prose, Poetry and Fiction.** Chennai Foundation Press Chennai.
Reference Books	
1	*Wood.F.D.* 2010. **A Remedial English Grammar for Foreign Students.** Macmillan Publishers India Ltd., Chennai**.**
2	*Farhathullah T.M.* 2006. **Communication Skills for Undergraduates.** Publishers RBA Publications, Chennai.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Know the different parts of genres in English
CO2	Trace the famous authors of English
CO3	Enrich grammar knowledge
CO4	Stimulate their writing skills
CO5	Deserve appreciation for their communication

18UTFM101	CORE I: TEXTILE FIBRES AND YARN	SEMESTER - I

Course Objectives:

The Course aims

- To Study the basics of Textile Fibers and its properties.
- To facilitate the students to understand the structural features & investigation techniques of textile fibers.
- To expose the students to the numbering system used to specify textile yarns.
- To enable the students to understand the processes involved in the production of yarn from fibres.
- To enable the students to understand the machinery used for the production of yarns using short staple spinning system.

Credits: 4 **Total Hours:50**

UNIT	CONTENTS	Hrs	CO
I	Introduction to textile fibres–definition, classification of fibres–Physical and Chemical properties of fibre and their end uses – Cotton, Linen, Jute, Wool, silk, Viscose Rayon, Nylon, Polyester, Acrylic.	**10**	**CO1**
II	Manufacturing process of natural fibres–cotton, linen, wool, silk, jute. Manufacturing process of Manmade fibres-Polyester, viscose rayon, nylon, acrylic, spandex	**10**	**CO2**
III	Ginning and Blow room process -Ginning– objectives, types & working principles of knife roller gin. Objectives of mixing and blending. Blow room- objectives, working principles of axi-flow cleaner, kirschner beater, lap forming unit (scutcher) –cleaning efficiency.	**10**	**CO3**
IV	Sequence of spinning process – Objectives - carding, draw frame and comber–objectives and working principles of simplex and spinning (Ring Frame). Study of Non conventional spinning – Rotor spinning, Friction spinning, Electrostatic spinning, Air jet spinning, Winding.	**10**	**CO4**
V	Yarn– definition, classification, simple, fancy yarn and sewing threads manufacturing process. Yarn twist–classification of twist, yarn count. Identification of yarn count. Simple Yarn–Cable, Ply and double Fancy yarn–Slub, flake, Spiral, knot or spot yarn– Count and twist–Optimum twist.	**10**	**CO5**

Text Books

1	*Sara Kadolph, J.* 2009. **Textiles.** [Tenth Edition]. Dorling Kindersley India (P) Ltd. Delhi.
2	*Kanwar Varinder Pal Sing. 2004.* **Introduction to Textiles**. Kalyani publishers, New Delhi.
3	*Corbman,* 2000. **Textiles: Fiber to Fabric.** [International students Edition]. McGraw, Hill Bookco, Singapore.

Reference Books	
1	*Chattopathyay, R. Salhotra, K.R.* 1998. **Spinning: Blow room, Carding.** NCUTE Publications.
2	*Chattopathyay, R.* and Rangasamy, R .1999. **Spinning: Spinning: Drawing, Combing & Roving, Carding.** NCUTE Publications.
3	*Chellamani, K.P.* **Ginning Technology**. SITRA Publications.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Understand the classification of textile fibers.
CO2	To carry out structural investigations techniques.
CO3	Summarize the steps involved in the production of manmade fibres (nylon, polyester, acrylic) and regenerated fibres (viscose rayon, acetate rayon, casein, and soybean).
CO4	Understand the processes involved in the production of yarn using short staple spinning system.
CO5	Understand the details of machinery used for the production of yarns and yarn numbering by different systems.

MAPPING

PSO / CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	H	H	H	M	M
CO2	H	H	M	H	H
CO3	H	H	L	M	H
CO4	H	H	L	H	H
CO5	M	H	L	H	M

H-High; M-Medium; L-Low

18UTFA101	ALLIED I: FUNDAMENTALS OF APPAREL DESIGNING	SEMESTER - I

Course Objectives:

The Course aims

- To know about functions of sewing machine.
- To impart knowledge on basic components of Apparel.

Credits: 2 **Total Hours: 40**

UNIT	CONTENTS	Hrs	CO
I	Parts and functions of a single needle machine, essential tools – cutting tools, measuring tools, marking tools, general tools, pressing tools, Seams and Seam finishes – types, working of seams and seam finishes Hems – types, stitches used.	8	CO1
II	Fullness - definition, types. Darts, tucks, pleats, flares and godets, gathers and shirrs, frills or ruffles, flounces, Facings – bias facing, shaped facing and decorative facing. Binding – single bias binding, double bias binding.	8	CO2
III	Plackets – definition, characteristics of a good placket, types – inconspicuous placket and conspicuous plackets - method of construction. Fasteners – conspicuous (Button and button-holes, button loops, shank buttons, eyelets and cords). Inconspicuous (press buttons, hooks and eyes, zips).	8	CO3
IV	Sleeves – definition, types, set-in-sleeves – plain sleeve, puff sleeve, bishop sleeve, bell, circular, Cap sleeve and Magyar sleeve. Sleeve and bodice combined – raglan, kimono and dolman. Yokes – types, simple yoke, yoke with fullness within the yoke, yoke supporting/ releasing fullness.	8	CO4
V	Collars – definitions, types, peter pan, scalloped, puritan, sailor, square, rippled, full shirt collar, open collar, Chinese, turtle neck, shawl collar pockets – types – patch pocket, bound pocket, pocket in a seam, front hip pocket.	8	CO5

Text Books

1	*Mary Mathews,* 1986. **Practical Clothing Construction**. Part I and II, Cosmic Press, Chennai.
2	**The Complete Book of Sewing,** 1986. Dorling Kindersley (P) Ltd., London

Reference Book

1	**Sewing and Knitting** A Readers Digest, step- by – step guide, Readers Digest (P) Ltd., Australia.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Understand the details of functions in sewing machine.
CO2	Understand the fundamental aspects of production of garment parts.
CO3	Explain the method of construction in the fabrics.
CO4	Gain knowledge to the various types of sleeves and yokes.
CO5	Analyze the different types of collars and pockets.

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	L	M	H
CO2	H	H	H	L	H
CO3	H	H	M	M	M
CO4	H	M	H	M	L
CO5	M	H	M	L	M

H-High; M-Medium; L-Low

18UTFMP101	CORE PRACTICAL I : TEXTILE FIBRES AND YARN	SEMESTER - I

Course Objective:

The Course aims

- To train the students on identification of different kinds of fibres based on different tests and measurement of properties of fibres.

Credits: 3 **Total Hours: 40**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
1	Longitudinal view of Natural fibers A) Cotton B) Silk C) Wool	4	CO1
2	Longitudinal view of Manmade fibers A) Polyester B) Viscose C) Nylon	4	CO1
3	Burning characteristic of Natural fibers A) Cotton B) Silk C) Wool	4	CO1
4	Burning characteristic of manmade fibers A) Polyester B) Viscose C) Nylon	4	CO1
5	Solubility test of Natural fibers A) Cotton B) Silk C) Wool	4	CO1
6	Solubility test of manmade fibers A) Polyester B) Viscose C) Nylon	4	CO1
7	Determination of blend proportion of P/C blends	3	CO2
8	Determination of blend proportion of P/V blends	3	CO2
9	Determination of blend proportion of P/W blends	3	CO2
10	Determination of Yarn count	3	CO3
11	Determination of Yarn Twist	4	CO3

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Identify the given fibres using cross section, solvent dissolution and burning characteristics.
CO2	Determine the blend proportion of different fibres in a blended material.
CO3	Determine the important properties of fibres.

18UTFMP102	CORE PRACTICAL II – FASHION SKETCHING	SEMESTER - I

Course Objectives:

The Course aims

- To give hands on training in the art of Sketching and creating textures.
- To train the students in sketching fashion accessories

Credits:3 **Total Hours: 40**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
1	Line drawing	4	CO1
2	Various shading methods	4	CO1
3	Object drawing and perspective drawing	8	CO1
4	Techniques of Enlarging & Reducing the motifs	8	CO2
5	Art of creating textures.	4	CO2
6	Drawing various types of hair styles.	3	CO3
7	Sketching types of Accessories – Bags, Footwear, Hats etc	9	CO4

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Understand basics of sketching.
CO2	Design Techniques of Enlarging & Reducing the motifs.
CO3	Draw the various types Hair styles.
CO4	Sketch the various types of accessories.

18UTFAP101	ALLIED PRACTICAL I : FUNDAMENTALS OF APPAREL DESIGNING	SEMESTER - I

Course Objective:

The Course aims

- To give hands on training on basic components of apparel.

Credits:2 **Total Hours: 50**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
1	Preparation of Samples For Seam - Plain, Top Stitched, And Flat Fell, Piped Seam.	4	CO 1,2&3
2	Hemming.	5	
3	Preparation of Samples For Fullness - Darts Tucks -Pin, Group Tucking with Scalloped effect, Pleats - Knife, Box, Kick, Gathering - Machine, Elastic. Ruffles.	7	
4	Preparation of Samples for Facing and Binding-Bias Facing, Shaped Facing, Binding.	7	
5	Preparation of Samples for Plackets and Fasteners- Continuous, Bound & Faced and Zipper Plackets, Button and Buttonhole, Press Button, Hook and Eye.	7	
6	Yokes- Supporting fullness, releasing fullness, shirt yoke.	6	
7	Sleeves – Plain, puff sleeve.	4	
8	Collars – Peter pan, shirt.	5	
9	Pockets – Patch, Bound.	5	

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Fundamental aspects of production of garment and various processes involved.
CO2	Analyze the method of construction in the fabrics.
CO3	Create the different types of seams, fullness, yokes, pockets etc.,

18UVE101	**VALUE EDUCATION I: YOGA**	**SEMESTER - I**

Course Objectives:

The Course aims

- To understand physical body and Health concepts
- To have the basic Knowledge on Simplified Physical Exercises and Asanas and Meditation
- To Introspect and improve the behaviors
- To inculcate cultural behavioral patterns

Credits:2 **Total Hours: 30**

UNIT	CONTENTS	Hrs	CO
I	**Yoga and Physical Health:** Health - Meaning and Definition - Physical Structure - Three bodies - Five limitations - Simplified Physical Exercises - Hand, Leg, Breathing, Eye exercises - Kapalabathi, Makarasana 1, 2 , Massage, Acu pressure, Relaxation exercises - Yogasanas – Surya namaskar - Padmasana - Vajrasana – Ardhakatti Chakrasana - Viruchasana - Yogamudra - Patchimothasana - Ustrasana - Vakkarasana – Salabasana	**6**	**CO1**
II	**Greatness of Life Force and Mind:** Maintaining youthfulness - Postponing the ageing process - Sex and spirituality - Significance of sexual vital fluid - Married life - Chastity - Development of mind in stages - Mental Frequencies - Methods for Concentration - Meditation and its Benefits	**6**	**CO2**
III	**Personality Development – Sublimation :** Purpose and Philosophy of Life - Introspection - Analysis of Thought - Moralization of Desire - Analysis and practice - Neutralization of Anger - Strengthening of will-power	**6**	**CO3**
IV	**Human Resources Development:** Eradication of Worries - Analysis and Eradication practice - Benefits of Blessings – Effect of good vibrations - Greatness of Friendship - Guidance for good Friendship – Individual Peace and world peace - Good cultural behavioral patterns	**6**	**CO4**
V	**Law of Nature:** Unified force - Cause and effect system - Purity of thought deed and Genetic Centre – Love and Compassion - Gratitude - Cultural Education - Fivefold culture.	**6**	**CO5**

Text Book

1	Value Education - Worl Community Service centre, Vethathiri Publications, Erode.

Reference Books

1	*Vethathiri Maharishi*. 2011. **Journey of Consciousness**. Vethathiri Publications,

	Erode
2	*Vethathiri Maharishi*. 2014. **Simplified Physical Exercises**. Vethathiri Publications Erode.
3	*Vethathiri Maharishi.* 2004. **Unified force.** Vethathiri Publications Erode.
4	*Vethathiri Maharishi.* **Yoga for Modern age.** Vethathiri Publications Erode.
5	*Dr.K.Chandrasekaran***.** 1999. **Sound Health through yoga.** PremKalyan Publications, Madurai.
6	*Vethathiri Maharishi*. 2009. **Kayakalpa yoga**. Vethathiri Publications, Erode.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Understand the physical structure and simplified physical exercises.
CO2	Nurture the life force and mind.
CO3	Introspect and improve the moral values.
CO4	Realize the importance of human resources development.
CO5	Enhance purity of thought and deed.

18UTALB201	**Tamil – II: பழந்தமிழ் இலக்கியங்கள்**	**பருவம் - II**

இப்பாடத்திட்டத்தின் நோக்கங்களாவன:

1. தொகைநூல்களின் சிறப்பை உணர்த்துதல்.
2. ஆயர்களின் வாழ்வியலை வெளிப்படுத்துதல்.
3. அறஇலக்கியங்கள், நாட்டுப்புற இலக்கியங்களின் சிறப்பைஉணர்த்துதல்.

Credits: 3 **Total Hours: 50**

UNIT	CONTENTS	Hrs	CO
I	**எட்டுத்தொகை** அ. குறுந்தொகை–''காதலர் உழையர் ஆகப் பெரிது உவந்து''– பாடல் எண்.41. ஆ. கலித்தொகை–''சுடர்த்தொடீஇ! கேளாய்!தெருவில் நாம் ஆடும்''– குறிஞ்சிக்கலி- பாடல். எண்.15. இ. ஐங்குறுநூறு –நெய்தல் திணை - தாய்க்குஉரைத்தபத்து– ''அன்னைவாழிவேண்டுஅன்னை!''–முதல் மூன்றுபாடல்கள். ஈ. புறநானூறு –''உற்றுழி உதவியும், உறுபொருள் கொடுத்தும்''– பாடல் எண்.183.	**10**	**CO1**
II	**பத்துப்பாட்டு** அ. நெடுநல்வாடை (முழுவதும்) 188 பாடல் அடிகள் - மதுரைக்கணக்காயனார் மகனார் நக்கீரனார்.	**12**	**CO2**
III	**அற இலக்கியங்கள்,நாட்டுப்புற இலக்கியங்கள்.** அ. திருக்குறள் - கல்விஅதிகாரம் முழுவதும். ஆ. முதுமொழிக்காஞ்சி–தண்டாப் பத்துமுழுவதும். இ. நாட்டுப்புறப்பாடல்கள் - தொழிற்பாடல் - களையெடுப்பு– ஆத்துக்குள்ளேஏலேலோ. ஈ. நாட்டுப்புறவிளையாட்டுக்கள் - ➢ சிறுவர்,சிறுமியர் விளையாட்டுக்கள் (1.கிட்டிப்புள், 2.ஒத்தையா? இரட்டையா?) ➢ ஆடவர் விளையாட்டுக்கள் (1.சிலம்பாட்டம் 2.சடுகுடு) ➢ மகளிர் விளையாட்டுக்கள் (1.பல்லாங்குழி, 2. தட்டாங்கல்)	**10**	**CO3**
IV	**இலக்கியவரலாறு** அ. சங்க இலக்கியவரலாறு (எட்டுத்தொகை,பத்துப்பாட்டு) ஆ. சங்கம் மருவியகால இலக்கியவரலாறு (பதினெண்கீழ்க்கணக்கு நூல்கள்) இ. நாட்டுப்புறவியல்,நாட்டுப்புறப்பாடல்கள்,நாட்டுப்புற விளையாட்டுக்கள் அறிமுகம்.	**10**	**CO4**
V	**இலக்கணம்** அ. இலக்கணக் குறிப்புதருதல் - வியங்கோள் வினைமுற்று,ஈறுகெட்ட எதிர்மறைப் பெயரெச்சம், இரட்டைக்கிளவி,அடுக்குத்தொடர். ஆ. அகத்திணைகள்,புறத்திணைகள் விளக்கம்.	**08**	**CO5**

Text Book

1	தமிழ்த்துறை,கே.எஸ்.ரங்கசாமி கலை அறிவியல் கல்லூரி (தன்னாட்சி),திருச்செங்கோடு.

COURSE OUTCOMES (CO)

இப்பாடத்தைக் கற்பதன் வாயிலாக மாணவர்கள் பெறும் பயன்களாவன:

CO1	தலைவன் தலைவி அன்பின் சிறப்பை உணர்தல்.
CO2	சங்ககால மக்களின் உயர் சிந்தனை, தலைவியின் காதல் மேம்பாட்டை அறிதல்
CO3	அறஇலக்கியங்கள், நாட்டுப்புற இலக்கியங்களின் மேன்மையை உணர்தல்
CO4	தமிழ் இலக்கியங்களின் வளர்ச்சி நிலைகளை உணர்தல்
CO5	இலக்கணத்தின் சிறப்பை அறிதல்.

18UENLB201	GENERAL ENGLISH – II	SEMESTER – II

Course Objectives:

The course aims

- To enhance the vocabulary of the students.
- To improve language skills and communication skills of the students.

Credits: 3 **Total Hours: 50**

UNIT	CONTENTS	Hrs	CO
I	**PROSE** 1. Bertrand Russell – The Happy Man **GRAMMAR** 1. Pronouns and Prepositions in complex sentences 2. Conjunctions in complex sentences 3. Verb compounded with Adverbs	10	CO1
II	**SHORT STORY** 1. Satyajit Ray – The Guest **POETRY** 1. William Wordsworth – The Solitary Reaper **GRAMMAR** 1. The use of co-relatives 2. Who and Whom **COMPOSITION** 1. Note Making 2. Note Taking	10	CO2
III	**PROSE** 1. George Orwell – Shooting an Elephant **POETRY** 1. John Keats – La Belle Dams Sans Merci **GRAMMAR** 1. Introductory There 2. The Infinitive 3. Tag Questions 4. Appended Questions **COMPOSITION** 1. Resume Writing	10	CO3
IV	**SHORT STORY** 1. R .K. Narayan - Nitya **GRAMMAR** 1. Much and Many 2. Much and Very 3. Still and Yet **COMPOSITION**	10	CO4

	1. Hints Development		
V	**GRAMMAR** 1. Noun Clauses and Adjective Clauses 2. Indirect Questions 3. Indirect expression of Imperatives 4. Make and Do 5. The Verb Have 6. Shall and Will **COMPOSITION** 1. Comprehension	**10**	**CO5**
Text Books			
1.	*Mohammad Aslamand Tak. A.H. 2009*. **Experience and Emotion An Anthology of Prose, Poetry and Fiction.** Foundation press, Chennai.		
2.	*Wood. F.D. 2010.* **A Remedial English Grammar for Foreign students**. Macmillan publishers India Ltd, Chennai.		
3.	*Farhathuallah. T.M. 2006.* **Communication Skills for Undergraduates.** Publishers -RBA-Publications, Chennai.		

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Grasp meaning of words, sentences and acquire the ability to use a dictionary.
CO2	Understand labels, simple notices and written instructions.
CO3	Master the mechanics of writing; the use of appropriate vocabulary, punctuation marks, and correct grammatical item.
CO4	Understand the total content and underlying meaning in the context.
CO5	Develop correct reading habits, silently, extensively and intensively.

18UTFM201	**CORE II : TRADITIONAL INDIAN COSTUME AND TEXTILES**	**SEMESTER - II**

Course Objectives:

The Course aims

- To Understand the Origin of Indian Traditional costumes and Textile designs.
- To impart knowledge of Traditional textile designs and motifs.
- To introduce application of these motifs on different textiles.

Credits:4 **Total Hours: 50**

UNIT	CONTENTS	Hrs	CO
I	Origin of Costume – Introduction – Ancient costume – Sources and types of Ancient costume - Factors Influencing Costume Development. Prepare an Album for Ancient Costume.	**10**	**CO1**
II	Traditional costume of East India – West Bengal, Orissa, Bihar, Assam, Arunachal Pradesh, Nagaland, Manipur, Meghalaya. Traditional costume of West India - Maharashtra, Gujarat, Goa and Madhya Pradesh.	**10**	**CO2**
III	Traditional Costume of North India - Jammu-Kashmir, Uttar Pradesh, Rajasthan, Punjab and Haryana, Uttaranchal and Himachal Pradesh. Traditional costume of South India - Tamil Nadu, Andhra Pradesh, Kerala and Karnataka.	**10**	**CO3**
IV	Traditional Indian textile - Colored textile – Bandhani, Patola, Ikat, Pocchampalli, Woven Textile – Brocade, Jamavar, Jamdani, Chanderi, Maheshwari, Kanjivaram, Kota and Baluchari saris. Painted and Printed textiles – Sanganeri, Kalamkari.	**10**	**CO4**
V	Traditional and Commercial Embroideries of different region of India – Introduction, History, Symbolic Motifs, Stitches , Thread and Colour - ChambaRumal of Himachal Pradesh , Phulkari of Punjab , Kutch and Kathiawar of Gujarat, Kasuti of Karnataka , Chickenwork of Lucknow, Kantha of Bengal, Kashida of Kashmir.	**10**	**CO5**

Text Books

1	*Vishu Arora.* 2008. **Suvasas: The Beautiful Costumes**. Abishek Publications, Chandigarh.
2	*Russel Gillow, Nicholas Barnard*. 1991. **Traditional Indian Textiles**. Thames and Hudson Ltd., London

Reference Books

1	*Shailaja, D. Naik , Jacquie A. Wilson*. 2006. **Surface Designing of Textile fabrics**. New age International (P) Ltd., New Delhi.
2	*Dhanija Jain* .1989. **Hand woven Fabrics of India**. Mapin publishing, Ahmedabad.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Discuss about the origin of costume and types of ancient costumes.
CO2	Outline the traditional costume of east and west India.
CO3	Analyze the traditional costume of north and south India.
CO4	Acquire knowledge about the traditional Indian, painted and printed textiles.
CO5	Understand the Commercial Embroideries of different regions.

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	M	H	L	M
CO2	H	H	H	M	L
CO3	H	H	H	M	L
CO4	H	H	H	M	M
CO5	H	H	H	M	M

H-High; M-Medium; L-Low

18UTFM202	**CORE III : APPAREL PRODUCTION MACHINERIES**	**SEMESTER- II**

Course Objectives:

The Course aims

- To Inculcate Technical Knowledge in Garment production machineries.
- To acquaint basics of production machinery and equipments used in apparel construction.

Credits:4 **Total Hours: 50**

UNIT	CONTENTS	Hrs	CO
I	Sewing Machine- Classification of Sewing Machine – Domestic and Industry, Single thread and Multithread. Parts and Functions of Sewing machine. Parts and types of Sewing machine Needle. Study of sewing machine special attachments, Care and Maintenance, Common Problems and their Remedies.	**10**	**CO1**
II	Over lock machine – Over lock for woven and knit, Flat lock, Bar tacking, Buttonhole making, Blind Stitching machine, Fabric inspection machine.	**10**	**CO2**
III	Spreading – Definition Requirements of Spreading process, Methods of Spreading –Spreading by hand, spreading by using travelling machine. Marking – Definition, Objectives, Requirements of Marker Planning, Efficiency of the Marker Plan, Methods of Marker Planning.	**10**	**CO3**
IV	Cutting Technology – Definition, Function, and Scope. Cutting equipment and Tools, Straight knife cutting machine, Round knife cutting Machine, Band Knife cutting machine, Die cutters, Notches Cutting drills, Computerized cutting machines.	**10**	**CO4**
V	Fusing: Definition, Advantage of fusing, Fusible interlining, Requirement of fusing, Fusing process, Means of Fusing, Fusing equipments - Methods of Fusing. Pressing-Objectives of Pressing, Purpose of Pressing, Pressing equipment and Methods. Pleating, Permanent press, State of Pressing.	**10**	**CO5**

Text Books

1	*Premlatha Mullick* .2002. **Garment Construction Skills**. Kalyani Publishers, Kolkata.
2	*Gerry Cooklin*.1999. **Introduction to Clothing Manufacture.** Blackwell Science.

Reference Books

1	*Gerry Cooklin*. 2002. **Garment Technology for Fashion Designers**. Blackwell Science.
2	*Raul Jewel*. 2005. **Encyclopedia of Dress Making**. APH Publishing Corporation, New Delhi.
3	*Harold Carr, Barbara Latham*.1994. **The Technology of Clothing Manufacture**. Wiley-Black well publications.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Discuss about the details of functions in sewing machine.
CO2	Understand the machinery and equipments for sewing process.
CO3	Acquire knowledge about the process of Spreading and Marker planning.
CO4	Analyze the functions and equipments for fabric cutting.
CO5	Explain the methods of fusing and pressing.

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	M	H	H
CO2	H	H	H	M	H
CO3	H	H	M	L	H
CO4	H	H	L	M	M
CO5	H	H	H	L	M

H-High; M-Medium; L-Low

18UTFA201	ALLIED II : FASHION DESIGNING	SEMESTER - II

Course Objectives:

The Course aims

- To impart knowledge on elements and principles of fashion.
- To gain knowledge on designing for unusual figures and wardrobe planning.

Credits:2 **Total Hours: 40**

UNIT	CONTENTS	Hrs	CO
I	Terms related to the fashion industry – fashion, style, fad, classic, and collection, chic Custom made, mannequin, fashion show, trend, forecasting, high fashion, fashion cycle, haute couture, fashion director, fashion editor, line, knock-off avantgarde, bridge, buying house, apparel, fashion merchandising, pre – a – porter, sample.	**8**	**CO1**
II	Design- definition and types – structural and decorative design, requirements of a good structural and decorative design. Elements of design – line, shape or form, colour, size and texture. Application of structural and decorative design in a dress. Principles of design- balance – formal and informal, rhythm- through repetition, radiation and gradation, emphasis, harmony and proportion. Application of principles of design in a dress.	**8**	**CO2**
III	Colour- definition, colour theories- prang colour chart and munsell colour system, Dimensions of colour- hue, value, and intensity. Standard colour harmonies- application in dress design. Colour in principles of design- application of the same in dress design.	**8**	**CO3**
IV	Designing 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.	**8**	**CO4**
V	Wardrobe planning for different age groups, factors influencing wardrobe selection, Fashion and season, Designing dresses for different occasions – business meetings, parties/ dinners, evenings/leisure hours, marriage functions, sports, uniforms for civil service, airhostess, hoteliers, schools – girls and boys (school, high school).	**8**	**CO5**

Reference Books	
1	*Bina Abling*. **Fashion Sketch Book**. Fair Child Publications, New York.
2	*Judith Rasband*. **Wardrobe Strategies for Women.** Delmar publishers, London.
3	*Susheela Dantyagi*. **Fundamentals of Textiles and their Care. [**Fifth edition]. Orient Longman Ltd., New Delhi.
4	*Heannette. A,* **Inside the Fashion Business** Jarnow et-al, macimilan Publishing Company, New York.
5	*Jimsey M.C, Harriet.* **Art and Fashion in Clothing Selection**, Iowa State University Press, Jowa.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Demonstrate the terms related in fashion industry.
CO2	Understand the elements and principles of design.
CO3	Analyze the dimension of colours.
CO4	Analyze the figure irregularities.
CO5	Understand the wardrobe planning for different age groups and occasions.

MAPPING

PSO / CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	H	H	M	L	M
CO2	H	H	H	M	M
CO3	H	H	H	M	L
CO4	M	H	M	L	H
CO5	M	H	M	H	L

H-High; M-Medium; L-Low

18UTFMP201	CORE PRACTICAL III : FASHION ILLUSTRATION	SEMESTER - II

Course Objectives:

The Course aims

- To train the students in illustrating proportion study.
- To give hands on training in illustrating fashion figures.
- To sketch the facial features.
- To draw hands and legs in different angles.
- To Design the apparel components

Credits:2 **Total Hours: 40**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
1	Proportion study – 7½ head & 8½ head theory – stick, block, & flesh figures for men & women.	8	CO1
2	Illustrating the Fashion figure – 8, 10, and 12.	6	CO1
3	Sketching the Facial features - Face, Eyes, Nose, Lips, and Ears.	8	CO1
4	Illustrating different Hand and Leg poses.	5	CO2
5	Developing Figures for Children, Men and Women with different poses.	6	CO3
6	Designing the components for the following: Different types of sleeves, collars, yoke and pockets	7	CO4

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Sketch human body and ideal figures.
CO2	Design different hand and leg poses.
CO3	Create different poses for children, men and women.
CO4	Design the different types of garment parts.

18UTFAP201	**ALLIED PRACTICAL II : FASHION DESIGNING**	**SEMESTER - II**

Course Objectives:

The Course aims

- To develop creative garment designs.
- To give hands on training in fashion designs.

Credits:2 **Total Hours: 50**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
I	**Illustrate garment designs for the Elements of Design** a. Different types of Lines - vertical, horizontal, diagonal, wavy, zigzag, dotted, spiral. b. Colour c. Texture d. Shape or Form e. Size	**14**	**CO1**
II	**Illustrate garment designs for the Principles of Design** a. Balance in dress b. Harmony in dress c. Emphasis in dress d. Proportion in dress e. Rhythm in dress	**12**	**CO1**
III	**Prepare the following Charts** a. Prang colour chart b. Value Chart c. Intensity Chart	**11**	**CO2**
IV	**Illustrate the colour harmony in dress design** a. Monochromatic colour harmony b. Analogous colour harmony c. Complimentary colour harmony d. Double complementary colour harmony e. Split complementary colour harmony f. Triad colour harmony	**13**	**CO3**

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Illustrate garment design with elements, principles.
CO2	Analyzing the dimension of colours.
CO3	Illustrate the colour harmony in dress design.

18UVE201	VALUE EDUCATION II: ENVIRONMENTAL STUDIES	SEMESTER–II

Course Objectives:

The Course aims

- To enable the students acquire knowledge, values, attitudes, commitment and skills needed to protect and improve the environment.
- To implicate awareness among young minds for safe guarding environment from manmade disasters.

Credits:2 **Total Hours: 30**

UNIT	CONTENTS	Hrs	CO
I	Environment– Definition– Scope– Structure and function of ecosystems- producers, consumers and decomposers- Energy flow in the ecosystem- Ecological succession– food chain, food webs and ecological pyramids– Concept of sustainabledevelopment.	**6**	**CO1**
II	Natural resources: Renewable- air, water, soil, land and wildlife resources. Non–renewable – Mineral coal, oil and gas. Environmental problems related to the extraction and use of natural resources.	**6**	**CO2**
III	Biodiversity– Definition– Values– Consumption use, productive social, ethical, aesthetic and option values threats to bio diversity – hotspots of bio diversity– conservation of bio- diversity: in– situ Ex– situ. Bio– wealth - National and Global level.	**6**	**CO3**
IV	Environmental Pollution :Definition– causes, effects and mitigation measures– Air pollution, Water pollution, Soil pollution, Noise pollution, Thermal pollution– Nuclear hazards – Solid wastes acid rain–Climate change and global warming environmental laws and regulations in India– Earth summit	**6**	**CO4**
V	Population and environment – Population explosion – Environment and human health – HIV/AIDS – Women and Child welfare – Disaster Management - Resettlement and Rehabilitation of people, Role of information technology in environmental health – Environmental awareness.	**6**	**CO5**

Text Book

1	Department of Biochemistry. Environmental Studies (Study Material). Published by K.S.Rangasamy College of Arts & Science (Autonomous). Tiruchengode.

Reference Book	
1	*Erach Bharucha*. 2005. **Textbook of Environmental studies**. Universities press. PVT. Ltd.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Know about the types of ecosystem and concepts in sustainable development.
CO2	Understand the natural resources and environmental problems in usage of Natural resources.
CO3	Be aware of biodiversity, hot spots of biodiversity and its conservation.
CO4	Be conscious on the effects of pollution, population explosion.
CO5	Implement the preventive measures for environmental issues.

18UTFM301	CORE I V: FABRIC MANUFACTURING TECHNOLOGY	SEMESTER-III

Course Objectives:

The Course aims

- To impart knowledge on preparatory processes involved in the production of fabric
- Basics of weaving and knitting processes
- Design the Structure of fabric for different applications.
- Fundamentals of knitting process
- Types of knitting processes

Credits:5 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Introduction to weaving - Brief study on sequence of weaving preparatory process. Warp winding – objectives – Warping sizing. Weft winding – objectives – Pirn winding machine.	**12**	**CO1**
II	Looms - Classification of looms, basic loom mechanism, primary secondary and auxiliary. Elements of woven design – Design, draft and peg plan. Types of drafting. Weaving – classification and characteristic features of woven structure. Plain, Twill, Satin and Sateen.	**12**	**CO2**
III	Honey comb, Huck-a-back, Mock leno. Extra Warp, Extra weft, Double cloth, Crepe Pile fabrics – characteristic features and end uses.	**12**	**CO3**
IV	Knitting–definition, history. Characteristics of knitted goods, principles of knitting. Basic knitting elements. Classification of knitted fabrics. Knitted loop structure–circular knitting machine, parts and function.	**12**	**CO4**
V	Weft knitting – Single Jersey, Purl Interlock Knit. Warp Knitting– Tricot, Raschel, Simple, CAM system to develop a knit design. Care & maintenance of knitted material. Identification of knitted fabric defects.	**12**	**CO5**

Reference Books

1 *Gokerneshan, N*. 2009. **Weaving preparation Technology.** Abishek Publication, Chandigarh.

2 *Murphy, W. S*. 2001. **Handbook of weaving.** Abhishek Publications, Chandigarh.

3 *Spencer, D. J*. 2001. **Knitting Technology**. [Third edition]. Textile Institute, Manchester.

4 *Ajgaonkar, D.B*. 1998. **Knitting Technology.** Universal Publishing Corporation, Mumbai.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Understand the different structures of woven fabric
CO2	Design the structure for different end uses
CO3	Create the draft and peg-plan which are required to convert the design in to fabric
CO4	Demonstrate the Principles of different types of knitting machines
CO5	Identify the defects and remedies of knitted materials

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	H	M	L
CO2	H	H	H	M	L
CO3	H	H	H	M	M
CO4	H	H	H	H	M
CO5	H	L	L	H	H

H-High; M-Medium; L-Low

18UTFM302	CORE V: PATTERN MAKING AND GRADING	SEMESTER-III

Course Objectives:

The Course aims

- To learn the techniques of taking body measurements for garment construction
- To develop knowledge on preparation of paper pattern, pattern alteration and grading.
- To gain knowledge on fabric layout.

Credits:5 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	**Body Measurements**: Importance, Preparing for Measuring, Ladies Measurements, Boys and Men's Measurements. Standardizing Body Measurements – Importance, techniques used. Relative Length and Girth Measures in Ladies / Gentlemen. Preparation of Fabric for Cutting – Importance of grain in cutting and construction, Steps in preparing the fabric for cutting.	12	CO1
II	**Pattern Making**: Methods of Pattern Making – (Drafting and Draping), Merits and Demerits. Types of Paper Patterns (Patterns for Personal Measurements and Commercial Patterns). Principles of Pattern Drafting. Pattern Details. Steps in drafting basic bodice front, back and Sleeve.	12	CO2
III	**Dart Manipulation**: Styles created by shifting of blouse darts, Adding fullness to the bodice, Converting darts to seams and partial yokes and incorporating darts into seams forming yokes. Fitting – Standards of a Good Fit, Steps in Preparing a Blouse for Fitting, Checking the Fit of a Blouse, Solving Fitting Problems in a Blouse, Fitting Techniques.	12	CO3
IV	**Pattern Alteration & Grading**: Importance of altering patterns, General principles for pattern alteration, Common pattern alteration in a blouse. Pattern Grading – Definition, Types – Manual, Master Grades - Basic Grading - Basic Front, Basic Back, Basic Sleeve and Basic Collar.	12	CO4
V	**Pattern Layout**: Definition, Purpose, Rules in layout, Types Of Layout (Methods), Layouts for Lengthwise Striped Designs, Fabric With Bold Designs, Asymmetric Designs, One Way Designs, Techniques of handling insufficient fabric, Fabric Cutting, Transferring Pattern Markings, Stay stitching and ease stitching.	12	CO5

Reference Books	
1	*Mary Mathews*, 1986. **Practical Clothing Construction – Part I & II**, Cosmic Press, Chennai
2	*Gerry Cooklin*, 1990. **Pattern Grading For Women's Clothes**, Black Well Science Ltd
3	*Zarapker*, 2006. **Zarapker System Of Cutting**, K. R, Navneet Publications Ltd, Mumbai

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Understand the standardization of body measurements and preparation for cutting
CO2	Prepare the drafting and draping for personal measurements
CO3	Gain knowledge in pattern layout planning and preparation of construction flow for apparel production
CO4	Acquire knowledge on the techniques involved in pattern alteration and grading for various body measurements
CO5	Recognize and identify the fitting problems in the garment

MAPPING

PSO / CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	H	H	M	H	L
CO2	H	H	L	H	H
CO3	H	H	H	M	L
CO4	H	H	H	H	L
CO5	L	L	M	H	H

H-High; M-Medium; L-Low

18UTFA301	ALLIED III: CARE AND MAINTENANCE OF TEXTILE	SEMESTER-III

Course Objectives:

The Course aims

- To Know the properties of water and soaps
- To Acquire Knowledge on different garment care technique
- To Analyze the various symbol of care labeling

Credits:4 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Water - Hard and Soft water, Methods of Softening water. Laundry soaps – Manufacture of soap (Hot process and Cold process), Composition of soap, Types of soap, Soap less detergents, Chemical action, Detergent manufacture, Advantages of detergents. Use of Non Carbon detergents.	12	CO1
II	Finishes – Stiffening agents – Starch (cold water and hot water), Other stiffening agents, Preparation of starch. Laundry blues and their application.	12	CO2
III	Laundry Equipment – Storage, Steeping and Washing – Wash board, Suction washer, Wash boiler and Washing machine. Drying equipments – Outdoor and Indoor type's. Irons and Ironing board – Types of iron (Box, Flat, Automatic and Steam iron).	12	CO3
IV	Special types of Laundry – Water proof coats, Silk Ties, Leather Goods, Furs, Plastics, Lace. Dry cleaning – Using absorbents, Using grease solvents. Storing – Points to be noted. Stain removal – Food stains, Lead pencil, Lipstick, Mildew, Nose drops, Paint, Perfume, Perspiration / Mildew, Tar, Turmeric and Kum- Kum.	12	CO4
V	Care labels - Importance of care labels – Systems of care labeling – Universal system - Washing instructions – Bleaching instructions – Drying instructions – Ironing instructions – Dry cleaning instructions. Placement of label on garments.	12	CO5

Text Books

1 *SusheelaDantyagi*. 1996. **Fundamentals of Textiles and their Care.** The Indian Women. Writers Cooperative Publishing Society, New Delhi.

2 *NoemiaD'souza.* 1998. **Fabric care.** New Age International Pvt. Ltd.,

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Understand the methods of water softening and manufacturing of soap
CO2	Prepare stiffening agents and methods of application in laundring
CO3	Analyze the methods of washing, drying and ironing
CO4	Gain knowledge about special type of laundering and stain removing process
CO5	Acquire knowledge on garment care

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	M	H	M
CO2	H	M	H	H	L
CO3	H	H	L	H	H
CO4	H	H	M	M	H
CO5	M	L	L	H	M

H-High; M-Medium; L-Low

18UTFMP301	CORE PRACTICAL IV : FABRIC DESIGN ANALYSIS	SEMESTER-III

Course Objective:

The Course aims

- To train the students in analyzing the cloth to identify construction parameters and prepare design, draft and peg plan.

Credits:2 **Total Hours: 40**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
	Analysis of construction details of the following fabric structure.		
1.	Plain and its derivatives	**2**	
2.	Twill and its derivatives	**2**	
3.	Satin(Regular and irregular)	**3**	
4.	Sateen(Regular and irregular)	**3**	
5.	Honeycomb(ordinary and Brighton)	**4**	
6.	Huck-a-back	**2**	**CO**
7.	Extra warp and Extra weft figuring	**3**	**1,2,3&4**
8.	Pile fabrics (warp and weft)	**3**	
9.	Backed fabrics	**3**	
10.	Double cloth	**3**	
11.	Crepe	**3**	
12.	Single jersey	**2**	
13.	Interlock knit	**4**	
14.	Rib	**3**	

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Identify the constructional parameters of fabric
CO2	Construct design, draft and peg plan for weaving the fabric
CO3	Analyze the different fabric structure
CO4	Analyze the various types of weaves in fabric production

18UTFMP302	**CORE PRACTICAL V: CHILDREN'S APPAREL**	**SEMESTER-III**

Course Objectives:

The Course aims

- To impart knowledge of the Students to Design, Draft and Construct the various garments for children.

Credits:4 **Total Hours: 50**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
1	Bib - Variation in outline shape.	**4**	**CO 1,2,3&4**
2	Panty - Plain or Plastic lined panty.	**4**	
3	Jabla- without sleeve, Front open (or) Magyar sleeve, back opens	**4**	
4	Baba Suit - Knickers with chest piece attached (Or) Romper	**6**	
5	A- Line Petticoat- (or) Petticoat with gathers at waist.	**6**	
6	Summer frock- With suspenders at shoulder line, without sleeve and collars	**6**	
7	Yoke frock- yoke at chest line, with open, puff sleeve, gathered skirt, frock- with Collar, without sleeve, gathered/ circular skirt at waist line (or) Princess Line frock	**7**	
8	Knicker- elastic waist, side pockets.	**7**	
9	T - Shirt–standard collar	**6**	

Reference Books

1 *Mary Mathews*. 1991. **Practical clothing construction - Part I and II.** Cosmic Press, Chennai.

2 *Zarapkar*. 2005**. System of Cutting.** Navneeth Publications, Mumbai.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Acquire knowledge about basic pattern making
CO2	Analyze the layout and measurements required for garments.
CO3	Calculate the amount of material required and cost of the garment.
CO4	Construct different styles of children's wear

18UTFSBP301	SBC I: PRACTICAL – COMPUTER APPLICATION IN FASHION - I	SEMESTER-III

Course Objective:

The Course aims

- To train the students in Corel draw/Adobe Illustrator software to create visual design.

Credits:2 **Total Hours: 40**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
	Using design software create the following visual communication designs,		
1	Create brand name & design logo for the same	2	CO1
2	Design visiting card, letter pad &Envelop design	2	CO1
3	Design seasonal greetings	2	CO2
4	Design a calendar	2	CO2
5	Design a label for a brand	4	CO3
6	Design tag for a brand	4	CO3
7	Design packing material for brand	4	CO3
8	Create a Lay-out design	5	CO4
9	Create a Poster design	5	CO4
10	Create a Dangler design	5	CO4
11	Create a Hoarding design	5	CO4

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Create logo and envelop designs
CO2	Design calendar and seasonal greetings
CO3	Design label and brand tag
CO4	Design layout & poster, Hoarding design

18ULS301	CAREER COMPETENCY SKILLS – I	SEMESTER – III

Course Objectives:

The course aims

- To understand the basic needs of Communication
- To utilize the communication skills for achieving at the time of Interview

Total Hours: 15

UNIT	CONTENTS	Hrs	CO
I	Basic Grammar – Usage of English – Listening and Speaking (Level-1) Tenses and Voices (Present, Past and Future)	**3**	**CO1**
II	Sentence Correction – Sentence Pattern - Reading Comprehension (Level -1)	**3**	**CO2**
III	Expansion of Proverbs – Closet Test (Level -1)	**3**	**CO3**
IV	Sentence Improvement (Essay Writing, Now- a –Days Vocabulary), Story Writing	**3**	**CO4**
V	E-Mail Building (Sending call letters), Letters (Formal and Informal)	**3**	**CO5**

Text Books

1	*Anne Seaton, Mew Y. H.* **Basic English Grammar for English-Book 1.**Learners Saddle point Publishers.
2	*Mark Newson.* **Basic English Syntax with Exercises.** (E-Copy)

Reference Book

1	*Chand S, Agarwal R. S.* **Objective General English.** Arihant Publications (India) Limited.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Recall the basic grammar in English
CO2	Concentrate on Sentence Correction
CO3	Understand Paragraph Writing
CO4	Improve the ability of Sentence Construction and Story Writing
CO5	Format Web Writing and Formal Writing of letters.

18UTFM401	CORE - VI : NON WOVEN & TECHNICAL TEXTILES	SEMESTER-IV

Course Objectives:

The Course aims

- Non woven materials and properties
- Recent development in Medical and Protective Textiles

Credits:4 **Total Hours: 50**

UNIT	CONTENTS	Hrs	CO
I	Non – woven – Introduction – definition, classification and scope and application of non woven – web preparation, production of parallel laid web, cross laid and random laid web. Bonding methods – mechanical, thermal, chemical/ adhesive, melt blown and spun lace techniques. Fusing – methods of fusing. Braiding – methods of braiding. Netting – methods, lacing.	**10**	**CO1**
II	Technical Textiles – Introduction, definition, scopes & importance and uses. Application of Agro Tech, Build Tech, Cloth Tech, Home Tech, Indu Tech, Medical Tech, Sports Tech, Pack Tech, Mobile Tech, Protect Tech, Geo Tech.	**10**	**CO2**
III	Medical and Industrial Textile– Introduction, general properties and end uses.	**10**	**CO3**
IV	Sports and Protective textiles – Introduction, general properties and end uses.	**10**	**CO4**
V	Smart & intelligent textiles, Smart –Active smart, passive smart & ultra smart, Intelligent – PCM, SMP, Chromic & conductive materials	**10**	**CO5**

Reference Books

1	Nonwoven bonded fabrics–Lunenscholss J and W Albrocht, Ellis Horwood, London1985
2	Non–Wovens–Arul Dahiya, MG Kamath, Raghavendra R Hedge and Monika Kannadnguli
3	Geo Textiles–NWM John, Blackir London Family Clothing–Tate and Glisson, John Wiky and Sons.,Illinas,1963
4	Technical Textiles– Anand and A.R.Horracks, Textile Institute

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Acquire knowledge on classification, application, mechanical, chemical and thermal properties of non-woven fabrics
CO2	Demonstrate the technical textiles and its applications of various fields
CO3	Gain knowledge about properties and end uses of medical and industrial textiles
CO4	Analyze the properties and end uses of sports and protective textiles
CO5	Discuss about the smart and intelligent textiles

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	L	H	L
CO2	H	H	L	H	L
CO3	M	H	L	M	M
CO4	M	H	M	H	L
CO5	H	H	M	H	M

H-High; M-Medium; L-Low

18UTFM402	CORE – VII : TEXTILE WET PROCESSING	SEMESTER –IV

Course Objectives:

The Course aims

- To acquaint student of the operational sequence in wet processing of different textile materials
- To impart knowledge in the field of pre-processing, processing and post-processing of textile substrate
- To impart fundamental knowledge of colour science and assessment of dyed goods

Credits:5 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Introduction to textile processing – process sequence-impurities present in grey fabric. Singing – Objective, types and process – Hot plate, Gas singing. Desizing-objective, types - Acid, Enzyme desizing. Scouring-objects & types-open scouring, kier boiling.	12	CO1
II	Bleaching - objects and types, chemicals used - hypochlorite, hydrogen peroxide bleaching. Scouring and bleaching of wool, silk, nylon and polyester. Mercerization- objects and types - chain, chainless mercerizing.	12	CO2
III	Dyeing - objects, parameters of dyeing, classification of dyestuff according to their chemical structure and specific application. Dyeing of cotton with direct, reactive, vat, sulphur, polyester with disperse dyes, silk with acid and basic dye sand natural dyes. Dyeing Defects, Remedies and causes.	12	CO3
IV	Concept of Dyeing machines–fiber, yarn and fabric dyeing machines–working principles of loose stock fibre bale - cheese- hank package – Jigger, winch – HT/HP Beam, jet – padding mangles-soft flow. Colour fastness to washing - light, rubbing and perspiration. Garment dyeing machine – Autoclave.	12	CO4
V	Printing – Objectives – Ingredients in printing paste, Difference between Dyeing and Printing, Styles of printing – Direct, Resist and Discharge. Methods of printing – Screen, Flat bed, Block, Batik, Roller, Rotary, Transfer printing. After treatments – Steaming, Curing and Thermal fixing. Printing Defects, Remedies and Causes.	12	CO5

Reference Books

1. *ShenaiV.A.* **"Technology of textile processing"** Vol.III, V, VII Sevale publications, Bombay1981.
2. *E.R. Trotman, Charlesgriffinco* **"Bleaching and Mercerization",** London1993.
3. *Dr.V.A.Shennai, sevak* **"Textile printing publication"** Mumbai 1991.
4. *Dr.V.A.Shennai, sevak* **"Textile Finishing"**publicationMumbai1991.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Identify the Chemical processing of textile materials
CO2	Assess the pre – processing and processing methods
CO3	Understand the dyeing methods and principles of colour application
CO4	Assessment of fastness properties of dyed goods
CO5	Analyze the Printing methods, Defects and Remedies

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	L	H	H	L
CO2	H	H	H	H	H
CO3	H	M	H	H	M
CO4	H	H	L	M	L
CO5	M	H	M	H	H

H-High; M-Medium; L-Low

18UCOTFA401	ALLIED IV : APPAREL COSTING AND DOCUMENTATION	SEMESTER – IV

Course Objectives:

The course aims

- To impart knowledge on elements of apparel cost and factors affecting cost.
- To educate on principles of cost estimation and actual cost

Credits: 4 **Total Hours: 50**

UNIT	CONTENTS	Hrs	CO
I	**Principles of Costing –** Meaning - Requirements of Good Costing System - Cost Unit - Types of Costs - Elements of Cost - Direct Material - Direct Expenses - Direct Wages - Indirect Materials - Indirect Labour - Indirect Expenses	**10**	**CO1**
II	**Cost Sheet**: Prime Cost - Factory Expenses – Administrative Expenses – Selling and Distribution Expenses – Preparation of Cost Sheet (Simple Problems).	**10**	**CO2**
III	**Material Control –** Meaning – Merits and Demerits - **Pricing of Material Issues:** FIFO, LIFO (Simple Problems) - Stores Ledger, Bin Card - EOQ (Simple Problems) Stock Level (Simple Problems)	**10**	**CO3**
IV	**Cost Estimation** of Yarn, Fabric, Dyeing, Printing & Finishing. Cost Estimation For Cutting, Stitching, Checking, Packing, Forwarding, Shipping, Insurance (Theory Only)	**10**	**CO4**
V	**Export Procedures** - Procedure for Export and Import - Export / Import Documentation– Letter of Credit - Bill of Lading – Export License - Commercial Invoice. Financing of Exports: Pre-Shipment Finance - Post-Shipment Finance - Export Credit Guarantee Corporation – Origin – Function	**10**	**CO5**

Text Books

1	*Reddy, T.S. and Hari Prasad Reddy, Y*. 2017 **Cost Accounting**.[Fourth Edition] Margham Publications, Chennai.
2	*Usha Kiran Rai*. 2008. **Export-Import and Logistics Management**.[First Edition]. Prentice Hall of India, New Delhi.

Reference Books

1	*S.P.Jain and KL. Narang*, "**Cost Accounting**", Kalyani Publishers, New Delhi.Edn.2005
2	*R.S.N. Pillai and V. Bagavathi*, "**Cost Accounting**", S. Chand and Company Ltd., New Delhi. Edn.2004

COURSE OUTCOMES (CO)

After the completion of the course, the students will be able to

CO1	Understand the costing system, elements and types.
CO2	Calculate the total cost by preparing cost sheet.
CO3	Know the methods of material control.
CO4	Identify the business practices on estimation of whole material cost for textile.
CO5	Turn-on their business from domestic to international.

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	H	M	L
CO2	H	H	M	M	L
CO3	H	M	M	M	L
CO4	H	M	H	H	M
CO5	H	H	H	M	H

H-High; M-Medium; L-Low

18UTFMP401	CORE PRACTICAL VI: WOMEN'S APPAREL	SEMESTER-IV

Course Objective:
The Course aims

- To train the students in construction of women garments.

Credits:3 **Total Hours: 50**

S.No	LIST OF EXPERIMENTS:	Hrs	CO
1.	Saree Petticoat- Six panel decorated bottom	**4**	**CO 1,2,3&4**
2.	Blouse Front Open, Fashioned neck, Waist band at front, with sleeve	**7**	
3.	Skirt - Circular / Gathered / Pleated with waist band	**7**	
4.	Skirt Top- Kimono / Raglan Sleeve	**6**	
5.	Salwar (or) Churidhar (or) Parallels (or) Bell Bottom	**6**	
6.	Kameez – With /without slit, flare, opening, panels, yoke	**7**	
7.	Nighty – Sleeve / Neck / Yoke with style variations.	**6**	
8.	Short kurta / Top – Decorative / surface design in tailored placket, with or without collar.	**7**	

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Acquire knowledge about basic pattern making
CO2	Analyze the layout and measurements required for garments.
CO3	Calculate the amount of material required and cost of the garment.
CO4	Construct different styles of womens wear

18UTFMP402	CORE PRACTICAL VII : TEXTILE WET PROCESSING	SEMESTER – IV

Course Objective:

The Course aims

- To train the students in pretreatment and wet processing of textile materials

Credits:2 **Total Hours: 40**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
	Preparation of samples for Processing		
1.	Desizing (acid & enzyme)	**2**	**CO1**
2.	Scouring	**2**	**CO1**
3.	Bleaching	**3**	**CO1**
4.	Mercerizing	**3**	**CO1&2**
	Dye the given fabric using suitable dye		
1.	Direct Dye	**3**	**CO 3&4**
2.	Reactive Dyes (Hot &Cold brand)	**4**	**CO 3&4**
3.	Sulphur Dyes	**4**	**CO 3&4**
4.	Vat Dyes	**4**	**CO 3&4**
5.	Disperse Dyes	**4**	**CO 3&4**
6.	Acid Dyes	**3**	**CO 3&4**
7.	Basic Dyes	**4**	**CO 3&4**
8.	Natural Dyes (any three)	**4**	**CO 3&4**

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Analyze the Desizing, Scouring, Bleaching and Mercerizing fabric
CO2	Evaluate the fabric Mercerizing process
CO3	Assess the methods of fabric dyeing
CO4	Acquire the technique of fabric dyeing using different dyes

18UTFSBP401	**SBC II: PRACTICAL – COMPUTER APPLICATION IN FASHION – II**	**SEMESTER-IV**

Course Objective:

The Course aims

- To train the students in computer application for Textile and Fashion Design

Credits:2 **Total Hours: 40**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
1	Create repeat & pattern designs for textile material	6	CO1
2	Create embroidery designs	6	CO2
3	Create print designs & work on colour separation	5	CO2
4	Draw the design for accessories i) Bag ii) Foot wear iii) Hat iv) Gloves v) Ornaments	8	CO3
5	Create tech pack for the following Men's wear/Women's wear/Kids wear	8	CO4
6	Fashion illustration with apt background i) Men ii) Women iii) Kid	7	CO4

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Create designs for textile materials
CO2	Create different designs for embroideries
CO3	Draw the different accessories design
CO4	Illustrate the designs for men, women and children with apt backgrounds

18ULS401	CAREER COMPETENCY SKILLS – II	SEMESTER – IV

Course Objectives:

The course aims

- To impart knowledge on the aptitude skills.
- To enhance employability skills and to develop career competency.

Total Hours: 50

UNIT	CONTENTS	Hrs	CO
I	Aptitude: Speed Maths - Multiplication of Numbers - Simplification - Squaring of numbers - Square roots and cube roots – HCF & LCM –Decimals - Averages, Powers and Roots.	**10**	**CO1**
II	Aptitude: Problems on Numbers – Problems on Ages – Surds & Indices – Percentage – Profit & Loss – Ratio & Proportion – Partnership – Chain Rule.	**10**	**CO2**
III	Aptitude: Simple & Compound Interest – Alligation or Mixture - Permutation and Combination.	**10**	**CO3**
IV	Aptitude: Probability – Missing Number series – Wrong Number Series – Races & Games of Skill.	**10**	**CO4**
V	Aptitude: Time & Work – Pipes & Cistern – Time & Distance – Problems on Trains – Boats and Streams.	**10**	**CO5**

Text Book

1	*R.S. Aggarwal.*2017.**Quantitative Aptitude**, *S Chand and Company Limited, New Delhi.*

Reference Book

1	*Abhijith Guha.* 2015. **Quantitative Aptitude for Competitive Examinations**, *5th Edition, Tata McGraw Hill, New Delhi.*

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Carry out mathematical calculations using shortcuts.
CO2	Calculate problems on age, surds and indices with shortcuts
CO3	Understand the core concepts of SI and CI, Permutation and Combination.
CO4	Obtain knowledge on shortcuts to calculate number series.
CO5	Perform new methods for aptitude calculations.

18UTFNM301	**NMEC I:** **FASHION ART AND DESIGN CONCEPT**	**SEMESTER - III**

Course Objectives:

The Course aims

- To understand the basic Techniques in Dress Designing.
- To Impart Knowledge about Design and Color.

Credits:2 **Total Hours: 22**

UNIT	CONTENTS	Hrs	CO
I	Types of Design -Structural and Decorative design Elements of Design- Line, Size, Shape, Color and Texture.	**4**	**CO1**
II	Principles of Design -Balance, Emphasis, Proportion, Rhythm, Harmony and its types.	**5**	**CO2**
III	Color- Definition, Color theory- Prang color system, Dimension of color- Hue, Value and Intensity. Color schemes in Prang color System.	**4**	**CO3**
IV	Figure Irregularities - Stout figure, Thin figure, Broad shoulders, Narrow Shoulders, Faces –Round, Large, and Small face.	**5**	**CO4**
V	Wardrobe Analysis and Survey – Factors to be considered while selecting clothes for different age group –Men, Women and Children**.**	**4**	**CO5**

Text Book

1	*Sumathi, G.J .2002.* **Elements of Fashion and Apparel Design.** Newage International (P) Ltd Publishers.

Reference Book

1	*Harriet Mcjimsey.* 1973. **Art and Fashion in Clothing Selection.** [Second Edition]. Iowa State University Press, Ames.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Understand the Design and Elements
CO2	Demonstrate the principles of designs
CO3	Explain the colour theory and scheme
CO4	Analyze the figure irregularities
CO5	Formulate the wardrobe planning for different age groups

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	H	H	H
CO2	H	H	L	M	L
CO3	M	H	M	L	M
CO4	H	H	H	H	L
CO5	H	H	L	M	M

H-High; M-Medium; L-Low

18UTFNM401	NMEC II: FUNDAMENTALS OF TEXTILES AND APPAREL	SEMESTER - IV

Course Objectives:

The Course aims

- Gain knowledge about Textile fibers and their Properties.
- To Develop and Understand about various kinds of Fabrics, their Structure and the Utility.
- To Impart Knowledge about Textile Dyeing and Printing.

Credits:2 **Total Hours: 22**

UNIT	CONTENTS	Hrs	CO
I	Introduction about Textile – Terminology of textile– Classifications of Textile Fibers– Definition- Fibers, Yarn, Fabric, Knitting, Weaving - Important Properties of textile fibres - Luster, Absorbency for Cotton, Silk, Wool, Polyester Fibers.	4	CO1
II	Yarn – Definition - Step by step process of Yarn making. Method of Fabric Construction - Weaving, Knitting, Nonwoven, Braiding, Netting, Knotting, Felting.	4	CO2
III	Dyeing – Definition – Method of Dyeing- Fiber, Yarn and fabric. Dyeing- Common faults in dyeing. Printing- Definition–Styles of printing– Direct, Resist and Discharge. Methods of Printing–Block, Screen, Stencil, Batik, Roller printing.	5	CO3
IV	Garment Definition – Step by step process of garment making - Body measurement, Pattern Making, Marker Planning, Cutting, Stitching - Stain Removal - Any five methods of stain removal process.	5	CO4
V	Care labels – Importance of care labels – Washing instructions – Bleaching instructions – Drying instructions – Ironing instructions – Dry cleaning instructions.	4	CO5

Text Book

1	*Premlatamullick.*2006.Text book of Textile Designing. Kalyani Publication.

Reference Books

1	*Sara Kadolph,J.* 2009.Textiles.[Tenth Edition]. Dorling Kindersley India Pvt.Ltd., Delhi.
2	*Vidyasagar*, P.V. 1995. Hand book of Textile. A Mittal Publication.

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Identify the textile fibres and its classification
CO2	Understand yarn making and methods of fabric construction
CO3	Explain the methods dyeing and printing
CO4	Analyze the process of garment making and stain removal
CO5	Acquire knowledge on machinery and equipments for garment care

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	M	M	H
CO2	H	H	M	H	H
CO3	M	H	H	M	M
CO4	H	H	H	H	M
CO5	M	H	M	L	H

H-High; M-Medium; L-Low

18UTFACP301	ADD-ON COURSE I: BEAUTY CARE (PRACTICAL)	SEMESTER - III

Course Objectives:

The Course aims

- To Gain knowledge on beauty care.
- To Develop and Understand about various kinds of Make ups and Hair styles.

Total Hours: 30

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
1.	SKIN CARE Bleaching Facial	**5**	**CO1**
2.	HAIR REMOVAL Threading Waxing	**5**	**CO1**
3.	NAIL TREATMENT Pedicure, Manicure, Nail art	**5**	**CO2**
4.	HAIR STYLE	**3**	**CO3**
5.	HAIR TREATMENT Hair curl, Hair straightening, Hair Colouring	**4**	**CO3**
6.	MAKE UP Face makeup, Bridal make up, Party make up	**5**	**CO4**
7.	SAREE DRAPING	**3**	**CO4**

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Understand the different skin care treatments
CO2	Outline the nail treatment and hair removal process
CO3	Acquire knowledge on different types of hair styles and treatments
CO4	Explain the different makeup and saree draping

18UTFAC401	ADD-ON COURSE II: FASHION PHOTOGRAPHY (THEORY)	SEMESTER - IV

Course Objectives:

The Course aims

- To educate on principles of photography. Different techniques and lighting methods.
- To educate on different types of photography equipments.
- Photography for different media, printing techniques.
- To impart knowledge on videography and computer applications in photography.

Total Hours: 25

UNIT	CONTENTS	Hrs	CO
I	Introduction to Photography – Definition – Types of photography - Photography Techniques and Equipment for different fields – Modeling - Newspaper – Magazines - Occasions - Fashion Shows.	**4**	**CO1**
II	Photography Equipments - Introduction to the equipment used in fashion photography. Camera Definition - Part of Camera. Classification and types of camera - Applications- Advantages and Disadvantages.	**5**	**CO2**
III	Indoor and Outdoor Photography **–** principle, needs and methods - lighting techniques, methods and equipments. Comparison of Outdoor Photography by with Indoor photography.	**6**	**CO3**
IV	Lighting and Photography – Lighting ratio and the effects of soft and hard light. Lighting methods: high key, glamour shots, mood shots. . Outdoor fashion shoot - shooting with natural light. Methods used to modify lighting on location. Styling and makeup for fashion and glamour photography.	**5**	**CO4**
V	Trends In Photography - Photography using digital cameras, video photography, image mixing, application of computers in photography, printing Techniques.	**5**	**CO5**

Text Book

1	*Bruce Smith*. 2008. **Fashion Photography: A Complete Guide to the Tools and Techniques of the Trade**. Am photo Books, Watson Guptill Publication, New York,

Reference Books

1	*Stephen A Dantzig*.2005. **Lighting Techniques for Fashion and Glamour Photography**. Amherst Media, Inc, New York.
2	*Billy Pegram*. 1999. **Fashion Model Photography: Professional Techniques and Images**. Amherst Media, Inc, New York.
3	*BillyPegram*.2008. **Posing Techniques for Photographing Model Portfolios.** Amherst Media, Inc, New York.
4	*John Hedgecoe*. 2005. **The Book of Photography**. DK Publishing Inc, United States

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Understand the different photography techniques
CO2	Analyze the different photography equipments
CO3	Explain the method of taking indoor and outdoor photography
CO4	Identify the lighting techniques ,styling and makeup for photography
CO5	Outline the latest trends in photography

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	M	H	H
CO2	M	M	H	M	H
CO3	H	H	H	H	H
CO4	H	H	H	H	L
CO5	H	M	L	M	L

H-High; M-Medium; L-Low

18UTFAL401	**ADVANCED LEARNER COURSE:** **INTERNATIONAL TRADE & DOCUMENTATION**	**SEMESTER - IV**

Course Objective:

The Course aims

- To study about the trade and the documents needed for trading.

Total Hours: 50

UNIT	CONTENTS	Hrs	CO
I	Firm establishment: introduction – export promotion councils and their role – registration formalities - rcmc –IE code – RBI code – garment classification and categories for various countries.	**10**	**CO1**
II	Foreign trade documents: need, rationale and types of documents relating to goods – invoice – packing note and list – certificate of origin – certificate relating to shipments – mate receipt – shipping bill – caret ticket – certificate of measurement – bill of lading – air way bill – documents relating to payment – letter of credit – types of l/c - bill of exchange – bank certificate for payment – document relating to inspection – certificate of inspection – gp and other forms.	**10**	**CO2**
III	Import procedure: import license – procedure for import license – import trade control regulation procedure – special schemes – replenishment license – advance license – split up license – spares for after sales service license – code number – bill of entry.	**10**	**CO3**
IV	Shipment and customs: pre shipment inspection and quality control – foreign exchange formalities – preshipment documents - documentation terms - excise and customs clearance of export cargo – shipment of goods and port procedures – customs clearance of import cargo. Post–shipment formalities and procedures – claiming duty drawback and other benefits**.**	**10**	**CO4**
V	Payment and deliveries: terms of delivery – INCO terms – EXW – FCA – FOB – CFR – CIF – CPT – DAF – DDP – DDU. Terms of payment – open account – cheque – cash payment against documents – bank payment against documents (LC) – security and cost of various payment terms– assessing the risk in payment – role of ECGC and standard policy.	**10**	**CO5**

Reference Books:

1	Govt. Of India: Hand Book Of Import And Export Procedures.
2	*Bose. A*.: Streamline Your Export Paper Work, International Trade Form, Oct – Dec1965.
3	How To Start Export. BI Booklets – Netherland CG C Services And Guidelines AEPC Booklets

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Understand the export promotion and quota distribution
CO2	Analyze the foreign trade documents
CO3	Assess the import procedures in apparel industry
CO4	Evaluate preshipment inspection and quality control
CO5	Discuss about payment and terms of product delivery

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	H	H	L
CO2	M	H	H	H	L
CO3	H	M	M	H	L
CO4	H	L	L	L	M
CO5	H	M	H	L	L

H-High; M-Medium; L-Low

18UTFAL402	ADVANCED LEARNER COURSE: SUSTAINABLE TEXTILE	SEMESTER - IV

Course Objective:

The Course aims

- To study about the Eco system and Eco-Friendly Processing.

Total Hours: 50

UNIT	CONTENTS	Hrs	CO
I	Introduction**:** Need for eco-friendly processing. Pesticides in fibres/yarns. Heavy metals, Formaldehyde and Pentachlorophenol in textiles. Eco Standards and Eco-Labels**:** Introduction. M.S.T., OTN100, COMITEXTIL and Ecomark scheme of India. Criteria for an eco-label based on the life cycle.	**10**	**CO1**
II	Eco-Friendly Processing**:** Environmental problems associated with textile processes. Approach to eco-friendly processing – fibre origin, eco- friendly production, processing and clothing production. Study about organic cotton processing. Study about Natural dyes & Dyeing.	**10**	**CO2**
III	Eco-Management**:** Introduction. Preparation of Ecology Policy Statement. Organization. Systematic review of orders. Purchase policy. Assessment of suppliers. Auditing parameters- Testing, Calibration and Checking procedures. Documentation.	**10**	**CO3**
IV	Eco - Audit: introduction. Product audit and production audit in textile industry. Certification and Labelling of Eco-Friendly Textiles**:** introduction. Organizations. Relationship between Eco-labelling and Eco-management & Auditing schemes. Legislation and controls on packaging and packaging waste.	**10**	**CO4**
V	Testing of Textiles to Eco-Standard Specifications**:** Introduction. Test methods for testing the banned chemicals – free formaldehyde, pesticides, pentachlorophenol, heavy metals, azo dyes containing aromatic amines & benzidine and halogenic carriers.	**10**	**CO5**

Reference Books

1	*Miraftab M and Horrocks A* R, "**Eco Textiles**", The Textile Institute, Wood head Publication Limited., Cambridge, 2007.
2	*Susanna Benny and Janakiraman K.P.*, "**Eco parameters: Present Status**", Mill Control Report No.15, The South India Textile Research Association, Coimbatore, 1998.

3	The Gazette of India, Extraordinary, Part II section 3, subsection 1 No 157, Ministry of Environment and Forests, Government of India, May 4, 1996.
4	The Gazette of India, Extraordinary, Part II section 3, subsection 11 No 193, Ministry of Environment and Forests, Government of India, May 26, 1997.
5	Oko-tex Standard 100, International Association for Research and Testing in the field of Textile Ecology (Oko - tex), Zurich, Switzerland, January

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

CO1	Understand the eco – standard and labels
CO2	Analyze the eco – friendly processing
CO3	Assess the ecology policy and purchase
CO4	Discuss about the production audit in textile industry
CO5	Evaluate eco – standards specification in textile industry

MAPPING

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	M	H	M
CO2	H	H	H	H	H
CO3	M	M	H	L	M
CO4	H	L	H	H	H
CO5	H	H	M	M	L

H-High; M-Medium; L-Low

GUIDELINES

1. SUBMISSION OF RECORD NOTE BOOKS:

Candidates appearing for Practical Examinations shall submit Bonafide Record Note Books prescribed for Practical Examinations, otherwise the candidates will not be permitted to appear for the Practical Examinations.

2. PASSING MINIMUM AND INTERNAL MARK DISTRIBUTION (Theory and Practical)

(i) THEORY

The candidate shall be declared to have passed the Examination, if the candidate secure not less than 40marks put together out of 100in the Comprehensive Examination in each Theory paper with a passing minimum of 30marks in External out of 75.

Internal Marks Distribution [CA- Total Marks: 25]

Attendance	: 5 Marks
Assignment	: 5 Marks
Internal Examinations	: 15 Marks
Total	**: 25 Marks**

(ii) PRACTICAL

The candidate shall be declared to have passed the Examination, if the candidate Secures not less than 40 marks put together out of 100 in the Comprehensive Examination in each Practical paper with a passing minimum of 24 marks in External out of 60.

Internal Marks Distribution [CA- Total Marks: 40]

Experiment	: 10 Marks (10-12 Experiments)
Attendance	: 5 Marks
Record	: 5 Marks
Internal Examinations	: 20 Marks
Total	**: 40 Marks**

3. QUESTION PAPER PATTERN AND MARK DISTRIBUTION

(i) THEORY **(For 75 marks)**

Question Paper Pattern and Mark Distribution

1. **PART – A (10 x 2 = 20 Marks)**
   Answer ALL questions
   Two questions from each UNIT

2. **PART – B (5 x 5 =25Marks)**
   Answer ALL questions
   One question from each UNIT with Internal Choice

3. **PART – C (3 x 10 =30 Marks)** Answer ANY THREE questions Open Choice–3out of 5 questions One question from each UNIT

(iii) PRACTICAL

Question Paper Pattern and Mark Distribution [Maximum Marks60]

Question Paper Pattern

- Practical Examinations shall be conducted at the end of concern Semester.
- Student shall write two questions as examiners choice from the practical list.

i) Internal Marks Distribution [CA-Total Marks: 40]

Experiments	: 10 Marks
Attendance	: 05 Marks
Record	: 05 Marks
Internal Examinations	: 20 Marks
Total	**: 40 Marks**

ii) External Marks Distribution [CE- TotalMarks:60]

Aim	: 05 Marks
Procedure	: 20 Marks
Performance	: 30Marks
Result	: 05 Marks
Total	**: 60 Marks**

4. **CAREER COMPETENCY SKILLS**

- **Viva voce– Semester III**
  - The student has to come in proper dress code for the Viva Voce
  - Questions will be asked to evaluate the reading, speaking and listening skills of the students.
  - E-mail and Letter drafting exercises will be given.

- **On Line Objective Examination (Multiple Choice questions) – Semester IV**
  - 100 questions-100 minutes
  - Twenty questions from each UNIT.
  - Online examination will be conducted at the end of the IV Semester.

INTERNSHIP

Every student shall undergo internship for a minimum period of 2 weeks after completing the fourth semester and before the start of the fifth semester.

The internship report (20 - 30 pages) shall contain descriptions about the following (list is only indicative and not exhaustive)

- Industries (Textiles / Apparel)
- Production Process
- Quality Control Section
- Finishing Process

A team of faculty members will evaluate students based on the report and a power point presentation.

18UTFM501	CORE – VIII : QUALITY ASSURANCE OF TEXTILE AND APPAREL	SEMESTER - V

Course Objectives:

The Course aims

1. To facilitate the understanding of Apparel quality assurance principles and process.
2. To infuse understanding of yarn, fabric and apparel testing method.
3. To impart knowledge on different quality aspects to be followed in the garment industry.

Credit: 4 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Textile Testing Definition- Importance of Textile Testing- Humidity and its influence on fiber properties –Standard Testing Atmosphere – Moisture relations, Wet and Dry bulb hygrometer. Fiber Testing – Fiber Length – Bear Sorter– Fiber fineness - Shirley Fiber fineness tester–Fiber maturity – Fiber strength tester - Stelo meter, Shirley Trash analyzer.	**12**	**CO1**
II	Yarn testing - Determination of yarn count, Yarn numbering system , Yarn twist, Single yarn strength, Lea strength, Yarn evenness test, Yarn crimp , Hairiness.	**12**	**CO2**
III	Fabric Testing -Tensile strength , Tearing strength, Fabric bursting strength, GSM Thickness, Shrinkage, Abrasion testing, Crease recovery, Pilling test, Drape and stiffness, seam strength, seam slippage.	**12**	**CO3**
IV	Definition of Quality Control, Scope and Importance of Quality control. Raw material Inspection - Fabric inspection - 4 point system -10 point system. - In process inspection - Final inspection- No inspection - 100% inspection - Statistical sampling - AQL standards.	**12**	**CO4**
V	Garment appearance after washing – package quality testing – care labels. Brief study about Testing Standards. Global Organic Textiles Standards – with "Eco-Textiles Labeling guide' - Brief study about Oeko-Tex Standards and importance of Oeko Tex certification. Fabric defects, Sewing defects and causes. Minor and Major defects.	**12**	**CO5**

TEXT BOOKS:	
1	*Booth J.E.,* **"Principle of Textile Testing",** Butterworth Publications, London, 1989
2	*Kothari V. K.,* **"Testing and Quality Management",** Progress in Textile Technology Vol.1, IAFL Publications, New Delhi, 1999
3	*Sara J. Kadolph.*,**"Quality Assurance for Textiles and Apparels",** Fair Child Publications, New York, 1998
REFERENCE BOOKS:	
1	*Saville,B.P.***"Physical Testing of Textiles",** Woodhead Publishing Ltd., England,2004.
2	*Grover E G and Hamby D.S* **"Hand Book of Textile testing and quality Control",** Wiley Eastern Pvt. Ltd., New Delhi, 1969.
3	*Ruth clock and Grace Kunz.*,**"Apparel Manufacture – Sewn Product Analysis",** Upper Sadle River Publications, New York, 2000
4	*Pradip V. Mehta.,* **"Managing Quality in the Apparel Industry",** NIFT Publication, India, 1998
5	*Slater K.*,**"Physical Testing and Quality Control",** The Textile Institute, Vol.23, No.1/2/3 Manchester, 1993
6	*Arindam Basu*,**"Textile Testing-Fiber, Yarn & Fabric",** SITRA, India, 2001.

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Understand the testing methods of textile fibers.
CO2	Assess the yarn quality testing
CO3	Analyze the quality parameters and testing of fabric
CO4	Analyze the Quality control and fabric inspection standards
CO5	Evaluate the apparel quality assurance and quality systems of fabric and garment.

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**H**
CO2	**H**	**H**	**M**	**L**	**M**
CO3	**H**	**H**	**L**	**L**	**M**
CO4	**H**	**H**	**M**	**M**	**L**
CO5	**H**	**H**	**H**	**H**	**M**

18UTFM502	CORE – IX : APPAREL MERCHANDISING	SEMESTER – V

Course Objectives:

The Course aims

1. To introduce the student to the apparel merchandising segments
2. To acquaint the students with process flow and inspection

Credit: 4 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Merchandising: Introduction, Meaning- Apparel Merchandising - Concepts of 'Six Rights' - Organization structure of an apparel industry - Classification of Exporters - Rating or Grading of export houses - Classification of buyers - Export merchandising and retail merchandising - Company profile and its contents	12	CO1
II	Process flow in apparel industry - Tech-pack -Buyer sourcing & communication - Enquiry - Order confirmation - order review and its importance - Planning & programming: Time and action calendar - Factors for route card - programming for yarn, knitting, dyeing, stitching, sampling, accessories - Samples: Meaning & importance - Types of samples - Expedition of samples	12	CO2
III	Inspection and its types - Testing - Check points before cutting - Pilot run or trial run and its importance - Approvals - Types of approvals - Shipping marks - Final inspection procedures - Self, Second and Third party inspection - Effective expedition procedures - Order sheet and its contents - Packing list and its contents - Document formats: order sheet, packing list, invoice, inspection and testing reports etc., - Assortment and its types	12	CO3
IV	Types of merchandiser- Functions of a merchandiser - Essential requisites of a good merchandiser - Vendor sourcing, evaluation and development - Global sourcing – Vendor nomination by buyers - Reasons for vendor nomination - Documents recording and maintenance - Claims and reasons for claims - Factory audits - Buyer's code of conducts	12	CO4
V	Export associations - Apparel Export Promotion Council - Journals and magazines related to apparel and textiles -Trade shows and Fairs - Participation in trade shows -	12	CO5

	Advantages of trade shows and fairs - Apparel & Textile Trade shows and fairs in India		

TEXT BOOKS:	
1	Apparel Merchandising, *Jerry A & Rosenau*, Fairchild Publications, London
2	Apparel Merchandising, *Robin Mathew*, Book Enclave Publishers, Jaipur
3	Apparel Merchandising, An intergrated Approach, Krishnakumar.M,2010,Abishek Publications.
REFERENCE BOOKS:	
1.	Apparel Merchandising, Jerry A &Rosenau, Fairchild Publications, London
	Fashion Merchandising & Merchandising, 4th Edition, Mary.
2.	G.Wolfe, TheGoodheart- WillcoxCo.,Inc, Illions, 2014.

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Understand the classification of merchandising
CO2	Assess the Process flow in apparel industry
CO3	Analyze the inspection procedures
CO4	Evaluate the merchandising and global sourcing
CO5	Analyze the Export association activities

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**H**
CO2	**H**	**M**	**M**	**H**	**M**
CO3	**H**	**H**	**L**	**L**	**M**
CO4	**H**	**M**	**H**	**M**	**L**
CO5	**H**	**H**	**H**	**M**	**M**

18UTFMP501	CORE PRACTICAL VIII- TEXTILE AND GARMENT TESTING	SEMESTER- V

Course Objectives:

The Course aims

1. To impart the practical knowledge on fabric and garment quality parameters.
2. To evaluate various properties of fiber, yarn, fabric and garment.

Credit: 3 **Total Hours: 50**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
I	**Fiber Testing** • Fiber Length • Fiber Fineness • Fiber Strength • Fiber Trash Analysis	12	CO 1,2 &3
II	**Yarn Testing** • Yarn count • Single Yarn Strength • Lea Strength • Yarn Twist	12	
III	**Fabric Testing** • Tearing Strength • Fabric Stiffness • Crease Recovery • Bursting Strength • Fabric Abrasion Resistance	14	
IV	**Garment Testing** • Seam Strength • Seam slippage test • Color fastness check	12	

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Measure the important characteristics of fabric and garment
CO2	Interpret the results obtained during evaluation of fabrics
CO3	Find the fabric and garment quality by standard testing

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	H	H	M
CO2	H	H	L	M	L
CO3	H	H	M	L	H

18UTFMP502	CORE PRACTICAL IX : MEN'S APPAREL	SEMESTER- V

Course Objectives:

The Course aims

1. To impart the practical knowledge in pattern drafting & garment construction skill in men's worn.
2. To develop creative skills in designing & constructing of men's worn for different age group.
3. To train the students in constructing various garments for Men wear

Credit : 3 **Total Hours: 50**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
1.	S.B.Vest – With/ without collar, Button attached, Sleeveless.	7	CO 1,2,3,4&5
2.	Full Sleeve Shirt – Full Open, Shirt Collar, Patch Pocket, Full Sleeve with Cuff.	8	
3.	Nehru Kurtha – Half open, Stand collar, with/ Without Pocket, Full Sleeve.	7	
4.	Pant – Full length, Pleated, Fly, with belt.	7	
5.	Bermudas –patch pocket.	7	
6.	T-Shirt – open collar, zip attached.	7	
7.	Pyjama- Elastic /Tape attached waist.	7	

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Create new designs, pattern drafting and construct the garments.
CO2	Analyze the layout and measurements required for garment construction.
CO3	Calculate the material and its cost required for making the garment.
CO4	Construct different styles of men's wear
CO5	Evaluate the pattern making skills and finishing of various men's costumes for the betterment of costume design.

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**H**	**M**	**M**	**L**
CO3	**H**	**H**	**H**	**L**	**H**
CO4	**H**	**M**	**H**	**M**	**L**
CO5	**H**	**H**	**H**	**H**	**M**

REFERENCE BOOKS	
1.	Scientific garment quality – K M Illege and sons, Plot no 43, somuvarpeth, pune,411011
2.	Easy cutting – Juvekar, commercial tailors corporation pvt ltd, 166, Dr. Ambedkar Road, Dadar
3.	Commercial system of cutting - Juvekar, commercial tailors corporation pvt ltd, 166, Dr.Ambedkar Road, Dadar
4.	Zarapker system of cutting – K R Zarapker Navneet Publications ltd
5.	Dress making – Smt Thangam Subramaniyam, Bombay tailoring and embroidery college, 32 north park street, ambattur, Chennai.

18UTFMP503	CORE PRACTICAL X : DRAPING FOR FASHION DESIGNERS	SEMESTER- V

Course Objectives:

The Course aims

1. To develop three dimensional design ideas through draping of muslin on a body form.
2. To initiate the sensitivity of fabric characteristics, in order to recognize the possibilities & limitations of different textures for garment design.

Credits : 3 **Total Hours: 50**

	LIST OF EXPERIMENTS:	Hrs	CO
I.	**Drape and Draft the Patterns for the following:**		
	a) Sleeves		
	• Puff sleeve		
	• Bell sleeve	6	
	• Raglon sleeve		
	• Cap sleeve		
	• Circular sleeve		
	• Kimono sleeve		
	b) Collars		
	• Mandarin collar		
	• Peter pan collar	**7**	
	• Stand collar		
	• Halter collar		
	• Scooped collar		
	• Scalloped collar		
	c) Yokes	**6**	
	• Hip Yoke		
	• Midriff yoke		**CO 1,2,3 &4**
	• Shirt yoke		
	d) **Skirts**	**6**	
	1. Plain Skirt		
	2. Flared Skirt		
	3. Pleated Skirt		
II	**Draping and Drafting basic apparel for Children / Men /Women**	**5**	
	a) Children		
	• A-line Frock		
	• Romper		
	b) Women		
	• Middi and Middi top	**10**	
	• Blouse		

	• Salwar Kameez **c) Men** • Full Sleeve Shirt • Pleated Trouser • Nehru Kurtha	**10**	

REFERENCE BOOKS	
1.	The Art of Fashion Draping, Connie Amadan Crawford, Fair Child Publications,New York,2005.
2.	Draping for Apparel Design, Hellen Joseph, Armstrong, 2008.

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Take accurate measurements of dress forms for children, women and men
CO2	Draft different features need for different garments.
CO3	Develop the structure of a garment design.
CO4	Drape dress forms with different styles.

MAPPING:

PSO / CO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	**H**	**H**	**H**	**M**	**H**
CO2	**H**	**H**	**M**	**M**	**M**
CO3	**H**	**M**	**H**	**L**	**M**
CO4	**M**	**H**	**H**	**M**	**L**

18UTFEL501	APPAREL RETAILING	SEMESTER- V

Course Objectives:

The Course aims

1. To infuse understanding of apparel retail merchandising.
2. To impart knowledge on different retail strategies and brands in the Apparel.

Credit: 5 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Retail & Retailing - Meaning & definition - Scope of apparel retailing - Retailing terminologies - Types of retailers and retail formats - Global retailing scenario - Retailing scenario in India -Functions of retailers	12	CO1
II	Retail strategies : Operational excellence , Product differentiation, Customer intimacy - Growth strategies - Market expansion strategies - Store planning - Location planning - Store design - Store design & retailing image mix - Space mix - Effective retail space management - Store layout - Floor space management	12	CO2
III	Retail merchandising - Merchandise planning - Merchandise hierarchy - Buying function - Category management - Mark up & Mark down - Shrinkage in merchandising management - Cross margin return on inventory - Supply chain management in apparel retailing - ERP in apparel industry	12	CO3
IV	Retail operations - Significant areas - Store operating parameters related to customers, stocks, space, employee, finance - Managing retail personnel - Manpower planning - Types of employees in retail - Remuneration structure.	12	CO4
V	Retail Brands and Branding - Functions of brands - Types of brands - Branding strategies - Store brands or private labels - Store brands Vs National brands - Famous apparel retail brands - Packaging - Functions of packaging - Kinds of packaging - Requisites of good package - Customer service management in retail - Service management model	12	CO5

TEXT BOOK:

1	Jaico Books, "Retail Management - Functional Principles & Practices", Gibson G.Vedamani

REFERENCE BOOKS:	
1.	Pradhan. (2010). *Retail Merchandising*. Tata McGraw-Hill Education.
2.	Tsan-Ming Choi, B. S. (2016). *Luxury Fashion Retail Management*. Springer.

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Understand the Global retailing scenario
CO2	Assess the Retail strategies in apparel industry
CO3	Analyze the Retail merchandising
CO4	Study the Retail operations techniques
CO5	Analyze the Branding strategies

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**H**	**L**	**M**	**L**
CO3	**H**	**M**	**M**	**L**	**H**
CO4	**M**	**H**	**M**	**M**	**L**
CO5	**H**	**M**	**H**	**H**	**M**

18UTFEL502	TOTAL QUALITY MANAGEMENT	SEMESTER- V

Course Objectives:

The Course aims

1. To introduce the student about the Total quality management
2. To acquaint the students with quality standards and Environment system

Credit: 4 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Quality - Evolution of Quality management - Quality Function and Quality Planning - Basic concepts of Total Quality Management (TQM) - Principles of TQM - Important Phases of TQM - Quality Trilogy - Four pillars of TQM - PDCA cycle & PDSA cycle - Kaizan concept - 5'S Philosophy - Quality Circles.	12	CO1
II	Statistical Quality Control (SQC) : Definition - SQC techniques - Frequency distributions: Discrete and Continuous - Measures of Central tendency: Mean, Median & Mode - Measures of dispersion: Range, Mean Range, Mean Deviation, Percentage Mean Deviation, Standard Deviation, Coefficient of Variation - Normal distribution - Binomial distribution - Poisson distribution.	12	CO2
III	Control charts: concepts and uses - Control limits - Control charts for Variables and Attributes: X Charts - R chart - P chart - NP chart - C chart - Acceptance sampling - Types of sampling plans: Single, Double and Multiple Sampling plans - OC curves - AQL and LTPD - Sampling errors and sampling risks - Producer's risk and Consumer's risk .	12	CO3
IV	ISO 9000 Standards: Meaning & Definition - ISO 9000 family of standards - Elements of ISO -Benefits of ISO 9000 System - Study on ISO 9001:2000 Guidelines and Standard Clauses -Implementation Procedures and requirements for ISO 9001:2000 system - Quality Manual and its contents - Accreditation and Certification agencies - Quality audit - Types of quality audit -Audit procedure - Requirements and characteristic of a Quality auditor .	12	CO4

V	Environmental Management System (EMS) - Meaning & Definition - Elements of EMS -Benefits of EMS - Environmental Policies - Implementation of ISO 14000 - Study on other management systems : Oeko Tex, SA8000, OHSAS 18000, WRAP	**12**	**CO5**
TEXT BOOKS:			
1.	*Total Quality Management– D.R. Kiran, Butterworth-Heinemann, 2016.*		
2.	J.M. Juran, "Quality Control Handbook"		
REFERENCE BOOKS:			
1.	Dr. S.P.Gupta, "Statistical Methods"		
2.	V.K.Kapoor, "Statistics"		

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Understand the principles of Total Quality Management.
CO2	Analyze the Statistical Quality Control.
CO3	Access the control charts and sampling plan.
CO4	Evaluate the quality standards and quality audit.
CO5	Analyze the Environmental management System

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**H**	**H**	**M**	**L**
CO3	**H**	**M**	**M**	**L**	**H**
CO4	**H**	**H**	**M**	**H**	**L**
CO5	**H**	**H**	**L**	**H**	**M**

18UTFSBP501	SBC PRACTICAL III : FASHION E-PORTFOLIO	SEMESTER – V

Course Objectives:

The Course aims

1. To learn the professional approach to design presentation.
2. To learn to use design for commercial purposes.
3. To reflect the assimilation of various inputs received from both creative & technical.

Credits : 2 **Total Hours: 40**

	LIST OF EXPERIMENTS:	Hrs	CO
1.	Develop Inspiration Boards.	4	CO 1,2,3&4
2.	Develop Mood Boards for different theme / inspirations.	3	
3.	Develop Color Palette based on the theme / inspiration	3	
4.	Develop Story Boards.	3	
5.	Develop Trims and Accessory Board based on Season.	4	
6.	Develop Forecast Board based on seasons for Fashion and Color.	3	
7.	Develop Fabric Board- collection of fabric swatches.	4	
8.	Develop Flat Sketches based on the theme / inspiration.	4	
9.	Create design board with 6 designs variation according to According your theme and customer profile.	4	
10	Develop Tech pack for your designs.	4	
11.	Develop of Ornaments and Accessories Board.	4	
	Final presentation.		

REFERENCE BOOKS:

1. *Fashion Portfolio: Design and Presentation, Anna Kiper Pavilion Books, 2016*
2. *Design Your Fashion Portfolio, Steven Faerm, illustrated, reprint & C. Black, 2012*
3. *Becoming a Fashion Designer, Lisa Springsteel, John Wiley & Sons, 2013.*

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Create Forecast Board on suitable seasons and color used for software.
CO2	Develop Flat Sketches based on the theme and inspiration by using software techniques.
CO3	Create design board with designs according to their theme and customer profile.
CO4	Develop Tech pack for their designs

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	M	H	M
CO2	H	M	H	M	H
CO3	H	H	M	L	M
CO4	M	H	L	M	L

18ULS501	CAREER COMPETENCY SKILLS-III	SEMESTER – V

Course Objectives:

The course aims

- To impart knowledge on the logical reasoning.
- To enhance employability skills and to develop career competency.

Total Hours: 15

UNIT	CONTENTS	Hrs	CO
I	Verbal Reasoning: Number Series Completion- Alpha Series Completion- Blood Relation- Distance and Direction- Analogy- Inequality- Classification.	3	CO1
II	Non-Verbal Reasoning: Series Completion - Analogy and Classification - Completion of Incompletion Pattern.	3	CO2
III	Non-Verbal Reasoning: Mirror Image and Water Image –Statement and Arguments - Cubes and Dices.	3	CO3
IV	Reasoning : Puzzle Arrangement - Syllogism - Input and Output.	3	CO4
V	Verbal Reasoning : Linear Arrangement - Circular Arrangement – Matrix Arrangement.	3	CO5

Text Book:

1 *Test of Reasoning – RS Aggarwal, S Chand and Company Limited, 2017Edition,New Delhi.*

Reference Book :

1 *Verbal & Non-Verbal Reasoning For Competitive Exams -Gajendra Kumar, AbhishekBanerjee, Disha publication, New Delhi.*

COURSE OUTCOMES (CO)

After completion of the course , the students will be able to :

CO1	Understand the core concepts of Verbal Reasoning
CO2	Formulate Non Verbal Reasoning with shortcuts
CO3	Find Mirror Image, Cubes and Dices
CO4	Obtain the knowledge on shortcuts to solve Puzzles.
CO5	Solve Linear Arrangement and Matrices with shortcuts.

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	H	H	M
CO2	H	H	L	M	L
CO3	H	H	M	L	H
CO4	H	H	M	H	L
CO5	H	H	H	H	M

18UTFAL501	FASHION ENTREPRENEURSHIP	SEMESTER - V

Course Objectives:

The Course aims

1. To study the scope of an entrepreneur and key areas of development.
2. To understand the entrepreneurship segments and market research.
3. To acquaint the students with fashion retailing concepts

Credit: 4 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Entrepreneurship. Understanding entrepreneurship. Common myth about entrepreneurs, fashion trend leads to entrepreneurial opportunities. Why some business (ails while other succeeds. entrepreneurial profile. development of the business concept. ratio of success and failures.	12	CO1
II	Market research. Defining the industry, industry life cycle, impact of technology. Regional market feasibility study. Market Segmentation. Consumption pattern, purchasing a franchisee operation, new product development, product launch. Pricing. Organizational behavior, market variables.	12	CO2
III	Entrepreneur. History and future projections. Web demographics. Benefits and limitations of going on-line. Building a business plan for E-Commerce-Models. Customer relationship management. security and privacy, promotion and marketing-Commerce challenges and concerns	12	CO3
IV	A Market Orientation. Retail Formats. Emerging and growing retail formats. Buying function in retailing. buying for different type of stores. Organizational structure and the buying function. Obtaining assistance for make buying decision. Trend watch for fashion buying Understanding your customers	12	CO4
V	Making the purchase. Negotiating term for the sale. Negotiating special buying situations, placing the Order. Window merchandising and visual display. Using different props. Business proposal, setting up an own boutique. Funding, Sourcing. Technical difficulties. understanding the client and expectations	12	CO5

TEXT BOOKS:	
1.	S.S.Khanka "Entrepreneurial Development" S.Chand & Co. Ltd. Ram Nagar New Delhi, 1999.
2.	Kuratko & Hodgetts, "Enterprenuership – Theory, process and practices", Thomson learning 6th edition.
3.	Ellen Diamond .2007. Fashion Retailing. Pearson Education. INC and Dorling Kinderley Publishing, New Delhi.
REFERENCE BOOKS:	
1.	Hisrich R D and Peters M P, "Entrepreneurship" 5th Edition Tata McGraw-Hill, 2002.
2.	Mathew J Manimala," Entrepreneurship theory at crosses roads: paradigms and praxis" Dream tech 2nd edition 2006.
3.	Rabindra N. Kanungo "Entrepreneurship and innovation", Sage Publications, New Delhi, 1998.
4.	EDII " Faulty and External Experts – A Hand Book for New Entrepreneurs Publishers: Entrepreneurship Development" Institute of India, Ahmadabad, 1986.

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Understand the entrepreneurship concepts
CO2	Assess the Market research and segmentation in apparel industry
CO3	Analyze the entrepreneurial skills and customer relationships.
CO4	Evaluate the market orientation and organizational structure.
CO5	Analyze the window merchandising activities

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**H**	**L**	**M**	**L**
CO3	**H**	**H**	**M**	**L**	**H**
CO4	**H**	**H**	**M**	**H**	**L**
CO5	**H**	**M**	**H**	**H**	**L**

18UTFAL502	ADVANCE TECHNICAL TEXTILE	SEMESTER- V

Course Objectives:

The Course aims

1. To infuse understanding of apparel retails.
2. To impart knowledge on different quality aspects to be followed in the garment industry.

Credit: 5 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Introduction to technical textiles - Scopes and classification. Technical fibres - High strength, modulus and performance fibres. Technical yarns - Methods of production. Technical fabric structures: Woven-Knitted - Nonwoven fabrics - Finishes.	12	CO1
II	Tissue response to implants - Inflammation - Cellular response to repair and implants. Soft tissue: Repair - Replacement - Sutures - Tapes - Percutaneous, skin implants. Blood interfacing implants - Blood compatibility and non-thrombogenic surfaces - Vascular, heart valve, implants. Hard tissue repair and replacement: Bone repair - Replacement - joints - Teeth replacements. Wound, health care and hygiene products.	12	CO2
III	Combat clothing - Water vapour permeable clothing - Breathable clothing. C amouflage systems - Deceptions - Decoys - Types and methods - Colour and patterns, Camouflage for UV, IR, antiradar and multiple spectral camouflages. Ballistic protective armours and accessories - fabrics and materials. Accessories: Cap - Helmet - Boots - Gloves. Aerospace Textiles: Scopes - Application - Gsuit - Multilayered garments. Fabrics for nuclear, biological and chemical protection.	12	CO3
IV	Geotextiles - Requirements - Properties - Functions - Applications - Assessment methods. Filtration Textiles: Requirements - Dust collection - Solid-liquid separation - Filtration efficiency. Architectural fabrics - Building structure - Roofing materials - Awnings and Canopies - Flags. Textile materials in agricultural applications. Textile materials in sports	12	CO4

	and recreations: Scopes - Applications. Mathamatical modeling for durability of Road related Geo textiles. Generic mathametical model for fluid flow with layered forour Textile materials.		
V	Transportation Textiles: Tyres - Airbags - Seat belts - Trims and covers. Textile materials in rail transport, aircrafts and marine applications. Textile Reinforced Composites (TRC): Fibres - Filaments - Woven fabrics - Braided fabrics - Stitched - Knitted fabric reinforcements. Filament winding: Method - Applications - Preforms - Prepegs.	**12**	**CO5**

TEXT BOOKS:

1.	Horrocks A. R., Anand S.C., "**Handbook of Technical Textiles**", Woodhead Publishing, Cambridge, 2000
2.	Adanur S., "**Handbook of Industrial Textiles**", Technomic Publication, Lancaster, 2001

REFERENCE BOOKS:

1.	Kanna M.C., Hearle, O Hear., Design and manufacture of Textile Composites, Textile process , Textile Institute, Manchester, April 2004.
2.	Scott,Textile for production, Textile process , Textile Institute, Manchester, Oct. 2005.
3.	Shishoo,Textile in spot, Textile process, Textile Institute, Manchester, Aug. 2005

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Understand the Technical fabric structures
CO2	Assess the Wound, health care and hygiene products.
CO3	Analyze the Breathable clothing
CO4	Analyze the Architectural fabrics
CO5	Evaluate the Transportation Textiles

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**H**	**L**	**M**	**L**
CO3	**H**	**H**	**M**	**L**	**H**
CO4	**H**	**H**	**M**	**H**	**L**
CO5	**H**	**H**	**H**	**H**	**M**

18UTFM601	CORE – X : INDUSTRIAL ENGINEERING IN APPAREL INDUSTRY	SEMESTER – VI

Course Objectives:

The Course aims

1. To enable the students to learn about basics of industrial engineering
2. To know about different tools of industrial engineering and its application in apparel industry

Credit: 4 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Industrial Engineering - evolution, functions, role of industrial engineer.	12	CO1
II	Methods study – introduction, techniques of recording; method analysis techniques; principles of motion economy; method study in garment manufacture; ergonomics- importance, workplace design, fatigue.	12	CO2
III	Work measurement– introduction; time study – equipment and procedure; standard data; predetermined time standards; work sampling techniques; incentive wag system; work measurement applied to garment industry	12	CO3
IV	Site selection for textile industry; plant layout - types of layouts suitable for textile industry, methods to construct layout; line balancing	12	CO4
V	Statistical Process Control – data collection; -SAM & SMV calculation for operations, SAM & SMV based costing to be included. concept of AQL, control charts in quality control; process capability-	12	CO5

TEXT BOOKS:

1. *Khanna O.P. and Sarup A.*,**"Industrial Engineering and Management**", Dhanpat Rai Publications, New Delhi, 2005
2. *George Kanwaty*, **"Introduction to Work Study ",** ILO, Geneva,1989
3. *Norberd Lloyd Enrick*,**"Industrial Engineering Manual for Textile Industry**", Wiley Eastern (P) Ltd., New Delhi, 1988
4. *Enrick N. L.,*"**Time study manual for Textile industry**", Wiley Eastern (P) Ltd., 1989.

REFERENCE BOOKS:

1. *Chuter A. J.*, **"Introduction to Clothing Production Management",** Black well Science, U. S.A., 1995
2. *Richard I. Levin. and David S. Rubin*., **"Statistics for Management",** 7th Edition, Prentice Hall of India Pvt. Ltd., New Delhi, 1997
3. *David M. Levine*, *Timothy C.* Krehbiel and Mark L. Berenson., **"Business Statistics:**
A First Course", Pearson Education Asia, New Delhi, 2nd Edition, 2000.
4. *Panneerselvam R.*, **"Production and Operation Management",** Prentice

	Hall of India, 2002.
5.	*Edward S. Buffa and Rakesh Sarin*., **"Modern Production and Operations Management",** John Wiley & Sons, U. S. A., 1987
6.	*Lee J. Krajewski and Larry P. Ritzman*., **"Operations Management: Strategy and Analysis"**, Addison Wesley, 2000
7.	*Chase, Aquilano and Jacobs*., **"Production and Operations Management",** Tata McGraw- Hill, New Delhi, 8th Edition, 1999

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Understand the Industrial Engineering
CO2	Access the method study
CO3	Analyze work measurement
CO4	Study the Plan layout
CO5	Evaluate the statistical process control.

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**M**	**L**	**M**	**L**
CO3	**H**	**H**	**M**	**L**	**H**
CO4	**H**	**H**	**M**	**H**	**L**
CO5	**H**	**M**	**H**	**H**	**L**

18UTFM602	CORE – XI : TEXTILE FINISHING	SEMESTER – VI

Course Objectives:

The Course aims

1. To impart knowledge on chemistry, mechanism & application process of various textile finishes.
2. To enhance the awareness of future trends in textile finishing.

Credit: 4 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Finishing - Introduction – Objects of finishing, Importance of finishing, Classification of finishes, Advantages of finishing.	12	CO1
II	Mechanical Finishes - Beetling, Shearing, Calendaring, Tentering, Moiering, Embossing, Glazing, Napping, Sanforizing, Chemical Weighting Of Silk, Sizing, Schreinering.	12	CO2
III	Functional Finish - Resin finish, Water Proof finish, Water Repellent finish, Antimicrobial finish, Flame Retardant finish, Soil Release finish - Process and Recipe. Wrinkle free finish.	12	CO3
IV	Advanced Functional Finish - Stiff finish - Process and Recipe, Softening - Silicone finish, Anti - Pilling finish, Anti Mildew finish.	12	CO4
V	Special Finishes On Garments – Finishing of Woven / Knitted garments – Stone less, Stone Wash effects – Mud wash, Ion wash, Chalk wash, Water resistant Breathable finish, Bio polishing, Leathery Finish, Nano Finish ,Deodorizing, Cool Finish and Thermostat finishes.	12	CO5

TEXT BOOKS:

1. *Dr. V.A. Shenai*, **"Technology of Finishing",** Vol. X, Usha, 1998.

2. *J.T. Marsh*, **"Introduction to Textile Finishing"** Vol. II, New Age, 1996

REFERENCE BOOKS:

1. *Schindler W.D and Hauser P.*, **"Chemical Finishing of Textiles",** Wood head Publications.

2. *Nallangilli and Jayaprakasam*. 2005. **Textile Finishing**. S.S.M Institute of Textile Technology.

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Understand the importance of textile finishing.
CO2	Analyze the mechanical finishing of textile material.
CO3	Access the Functional finishing of textiles.
CO4	Evaluate the advanced Functional Finishes
CO5	Access the special finishes of Garments

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**H**	**M**	**M**	**L**
CO3	**H**	**H**	**H**	**M**	**M**
CO4	**H**	**H**	**M**	**L**	**L**
CO5	**H**	**H**	**H**	**M**	**L**

18UTFM603	CORE – XII : FASHION BUSINESS	SEMESTER - VI

Course Objectives:

The Course aims

1. To introduce the student to the fashion business segments
2. To acquaint the students with fashion communication tools

Credit: 4 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	**FASHION BUSINESS** Scope of fashion business-primary level, secondary level and retail level- type of fashion designers – role of fashion designers – Indian fashion designers – principles of merchandising – types of merchandising - role of merchandiser – effect of consumer – types of buyers – communication with buyers and consumers.	**12**	**CO1**
II	**FASHION ENVIRONMENT** Introduction to fashion industry – fashion environment - demographic & psychographic, economic, sociological and psychological factors – fashion cycle. Fashion business - designer's role, manufacturer's role and retailer's role. Leaders of fashion – theories of fashion adoption.	**12**	**CO2**
III	**ADVERTISEMENT AND PROMOTIONS** Advertising purpose – methods – types of advertising media – sales promotion methods – trade fairs and fashion shows as sales promotion techniques – feedback to production and marketing departments – use of computers as a tool for effective merchandising – fashion auxiliary services.	**12**	**CO3**
IV	**FASHION MARKET** Market research types of market – retail & wholesale market – domestic & international market – designer's labels – chain stores – brand market. Sourcing method of sourcing – raw material sourcing – accessory sourcing. Resource planning – supply and demand chain analysis - just in time technology.	**12**	**CO4**
V	**FASHION FORECASTING** Fashion forecasting – need for forecasting – forecasting agencies – role of forecasting agencies – fashion direction and recent trends – product development –	**12**	**CO5**

	product mix, factors affecting product mix. Fashion Association in India - Fashion Auxiliary services		
TEXT BOOKS:			
1.	Fashion Advertising and Promotion, Jay and Ellen Diamond, Fair Child Publishers, New York, 1999.		
2.	Fashion Marketing, Mike Easey, John Wiley & Sons, 2009		
REFERENCE BOOKS:			
1.	*Frings G. S.* **"Fashion-from concept to consumer".**		
2.	*Gibson G. Vedamani.*, **"Retail Management Functional Principles & Practices, Third Edition"** Jaico Publishing House, 2003.		
3.	*Mike Easey*, **"Fashion Marketing ; Blackwell Science",** 2000.		
4.	*Maurice J. Johnson and Evelyne C. Moore,* **"Apperal product development",** Prentice Hall inc.2001.		

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	understand the business levels and designer skills
CO2	acquire knowledge about the fashion environment and adoption
CO3	analyze the advertising and sales promotion.
CO4	evaluate the material sourcing and research
CO5	analyze the fashion forecasting and product development.

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**H**	**H**	**M**	**H**
CO3	**H**	**H**	**M**	**M**	**M**
CO4	**H**	**M**	**M**	**H**	**L**
CO5	**H**	**H**	**H**	**M**	**L**

18UTFMP601	CORE PRACTICAL XI : COMPUTER AIDED TEXTILE AND APPAREL DESIGNING	SEMESTER – VI

Course Objectives:

The Course aims

1. To train the students in CAD for pattern making and grading of garments.
2. To create suitable textile designs on fabrics.

Credit: 3 **Total Hours: 50**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
1.	Create a pattern design on different styles.	4	CO 1,2&3
2.	Grading patterns on different size scale.	4	
3.	Making marker plan for cutting fabrics.	4	
4.	Estimating lay length and calculating marker efficiency. • Kid's Wear – Romper • Kid's Wear – A Line frock • Children's Suits And Pyjama • Ladies Skirt • Ladies Blouse • Ladies Basic Bodice • Women's Nighties • Men's Basic T Shirt • Raglan with Pocket • Men's Polo T Shirt • Men's Trouser	4 11	
5.	Dobby designing – Stripes, Checks, twills, sateen and diamond weaves.	3	
6.	Color combinations and color ways. Presentation of designs.	3 3	
7.	Development of jacquard designs using - colour and weave selection concepts – shade and thread balance.	4	
8.	Development of jacquard designs and repetition – Ogee base, Diamond base, Sateen base	5 5	

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	create, select and apply appropriate software techniques and modern tools for the embellishment of garments.
CO2	draft the pattern, grading and plan laying by using software techniques.
CO3	develop the new designs suitable for dobby, jacquard and printing styles with software tools.

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**H**	**L**	**M**	**L**
CO3	**H**	**H**	**M**	**L**	**H**

18UTFEL601	FASHION AND VISUAL MERCHANDISING	SEMESTER – VI

Course Objectives:

The Course aims

1. To acquaint students with various marketing and merchandising procedures
2. To impart the students to inspection procedures
3. To impart the students to process flow in the apparel industry.

Credit: 4 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Visual merchandising - Definition and functions, significance of display, role of a visual merchandiser, display ethics, display basics, design basics. Responsibilities for the visual merchandising function.	12	CO1
II	Store layout and design, types of stores- store exteriors – signs, facade, banners, planters and awings. Store interiors – selling area and sales support area.	12	CO2
III	Window display- meaning and scope. Types of setting .Atmospheric for store design – color, lighting, fixtures, signage and graphics, sound and aroma, mannequins and its types.	12	CO3
IV	Fashion merchandising: Store image, Target customer - Fashion direction - Design planning and selection - Merchandising plan - Buying - Receiving and Warehousing - Distribution - Retail selling and promotion - Sales evaluation - Retailing policies - Foreign Fashion Markets: France, Italy, America, Britain, German, Asian - Indian Fashion Industry	12	CO4
V	Visual merchandising, Visual display - Fashion communication – Visual / 3D visual –Elements of visual merchandising, Comparison of Visual Merchandising with Fashion Merchandising Visual merchandising as a communication tool, presentations in visual merchandising, Software used in merchandising, Merchandise Planning Software, buy ease software.	12	CO5

TEXT BOOKS:

1.	Fashion Merchandising & Merchandising, 4th Edition, Mary G.Wolfe, The Goodheart- WillcoxCo.,Inc, Illions, 2014.
2.	Fashion- from Concept to Consumer, 9th Edition, Gini Stephens Frings, Pearson Education Ltd, Harlow, 2014.
3.	Visual Merchandising and Display, 6th Edition, Martin M. Pegler, Fairchild Books, UK.
4.	New Trends in Visual Merchandising – Retail Display Ideas that Encourage Buying, Judy Shepard, Harper Design Publishers, 2013.
	The business of fashion inside outside, 7th Edition, Kitty Dickerson, 2003.

REFERENCE BOOKS:	
1.	Ellen Diamond .2007. Fashion Retailing. Pearson Education. INC and Dorling Kinderley Publishing, New Delhi.
2.	Robert colborne, 1996. Visual Merchandising: The Business of merchandise Presentation. Delmer learning.
3.	Laura. L Bliss, 1955. Study Guide Visual Merchandising and Display. Fairchild's Publication, New York.

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	understand the role of a visual merchandiser
CO2	acquire knowledge about the Store layout and design
CO3	analyze the window display
CO4	evaluate the fashion merchandising
CO5	access the organization of fashion shows

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**H**	**M**	**M**	**L**
CO3	**H**	**H**	**H**	**L**	**M**
CO4	**H**	**H**	**M**	**H**	**L**
CO5	**H**	**H**	**L**	**M**	**L**

18UTFEL602	APPAREL PRODUCTION MANAGEMENT	SEMESTER – VI

Course Objectives:

The Course aims

1. To acquaint student with different types of textile finishing and its assessment
2. To impart knowledge on garment washing

Credit: 4 **Total Hours: 60**

UNIT	CONTENTS	Hrs	CO
I	Human Resource Development Introduction to Structure and Sectors of Clothing Industry - Job analysis and description – Job specification - Recruitment and Selection - Kinds of Interview - Purpose of Appraisal - Criteria of Appraisal - methods of Appraisal methods - Limitations - Hrd methods and processes - Sewing room supervisor's Job and training needs - Hrd in Indian apparel industry.	12	CO1
II	Plant Engineering & Line Balancing Introduction to Garment Industry - Plant Location - Location Economics - Plant Layout - Process Layout - Product Layout - Combination Layout - Introduction to Balancing Theory - Balance Control - Balancing exercises for garment industry.	12	CO2
III	Work Study Concept and Need - Method study and Work measurement - techniques - process chart symbol - Process flow chart - Flow Diagrams - String Diagrams - Multiple activity chart - principles of motion economy - SIMO chart - Time study methods - Standard time data - Ergonomics with special reference to garment industry.	12	CO3
IV	Productions and Productivity Methods of Production Systems - Job, Mass & Batch - section systems, progressive bundle system & 'synchro' system - Conveyor Systems - Unit Production System - Quick Response. Productivity concepts - Measurement of Productivity - "Man Machine Material" - Criteria for increasing productivity.	12	CO4
V	Production Planning and Control Function, Qualitative and Quantitative analysis of Production - Coordinating Departmental activities - Basic Production Systems - Evaluating and Choosing the System - Flow Process and Charts for Garment - Scheduling calculations - Assigning operators optimally - setting up complete balanced production lines to produce given amount of garments	12	CO5

TEXT BOOKS:	
1.	Muthu, S. S. (2015). *Handbook of Sustainable Apparel Production* (illustrated ed.). CRC Press.
2.	Myers-McDevitt, P. J. (2010). *Apparel Production Management and the Technical Package.* Bloomsbury Academic.
REFERENCE BOOKS:	
1.	Technology of Clothing Manufacture - Carr & Latham
2.	Apparel Manufacturers Handbook - Jacob Solinger
3.	Introduction to Clothing Manufacture - Gerry Cooklin
4.	Introduction to Production Management - A. J. Chuter
5.	Personal Management and Industrial Relations - Tripathi
6.	Industrial Engineering and Management - OP. Khanna

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Understand the Human Resource Development
CO2	Acquire knowledge about the Plant Engineering & Line Balancing
CO3	Analyze the method study and work measurement
CO4	Evaluate the Productions and Productivity
CO5	Analyze the Production Planning and Control

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**H**	**M**	**M**	**L**
CO3	**H**	**H**	**L**	**M**	**M**
CO4	**H**	**M**	**M**	**L**	**L**
CO5	**H**	**H**	**H**	**L**	**L**

COURSE OUTCOMES (CO)

After completion of the course, the students will be able to

18ULS601	CAREER COMPETENCY SKILLS	SEMESTER – VI

Course Objectives:

The course aims

- To understand the basic needs of Communication
- To utilize the communication skills for achieving at the time of Interview

Total Hours: 15

UNIT	CONTENTS	Hrs	CO
I	Basic Grammar- English usage- Reading and Writing (Level-2) Direct and Indirect Speech	3	CO1
II	Spotting Errors – Parts of speech and Punctuation	3	CO2
III	Role Play – Just a Minute (JAM) -Group Discussion	3	CO3
IV	Interview Presentation (Self-Introduction) - Critical thinking, problem solving.	3	CO4
V	Dress Code and Body Language-Leadership	3	CO5

Text Books

1	*Basic English Grammar for English-Book 1, Learners,Anne Seaton, Y.H.Mew, Saddlepoint Publishers(E-Copy)*
2	*Basic English Syntax with Exercises, Mark Newson(E-Copy)*

Reference Book

1	*Objective General English, S.Chand, Dr.R.S.Agarwal*

CO1	Recall the basic grammar in language
CO2	Concentrate on sentence correction
CO3	Recognize the differences among facts,opinions and judgements
CO4	Develop their personal skills through interview
CO5	Appropriately apply their learning and leadership style and strength

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**H**	**L**	**M**	**L**
CO3	**H**	**H**	**M**	**L**	**H**
CO4	**H**	**H**	**M**	**H**	**L**
CO5	**H**	**H**	**H**	**H**	**M**

18UTFSBP601	SBC PRACTICAL IV: PRINTING TECHNIQUES	SEMESTER- VI

Course Objectives:

The course aims

1. To train the students for preparing various printing samples.
2. To create and develop various printing designs for apparels.

Credit:2 **Total Hours:40**

S.NO	LIST OF EXPERIMENTS:	Hrs	CO
1.	Preparation of sample for printing. • Cotton • Polyester • Silk.	6	1,2, &3
2.	Preparation of printing paste.	6	
3.	Create Design with Block printing – Vegetable/ wooden blocks	6	
4.	Create Design with Stencil printing.	5	
5.	Tie and Dye Designs with any three methods with single/ double/ Multi colours.	5	
6.	Batik printing with any three methods with single/ double/ Multi colours.	7	
7.	Print a Design using Screen printing methods.	5	

COURSE OUTCOMES (CO):

On completion of this course, the students should be able to

CO1	Prepare the samples with different fabrics for printing
CO2	Create medium and paste needs for printing
CO3	Develop designs for various printing styles

MAPPING:

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	**H**	**H**	**H**	**H**	**M**
CO2	**H**	**H**	**L**	**M**	**L**
CO3	**H**	**H**	**M**	**L**	**H**