

STATE BOARD OF TECHNICAL EDUCATION, BIHAR
Scheme of Teaching and Examinations for
VIth SEMESTER DIPLOMA IN COSTUME DESIGN & GARMENT TECHNOLOGY
(Effective from Session 2020-21 Batch)

THEORY

Sr. No.	SUBJECTS	SUBJECT CODE	TEACHING SCHEME	EXAMINATION – SCHEME							Credits	
			Periods per Week	Hours of Exam.	Teacher's Assessment (TA) Marks (A)	Class Test (CT) Marks (B)	End Semester Exam. (ESE) Marks (C)	Total Marks (A+B+C)	Pass Marks ESE	Pass Marks in the Subject		
1.	Entrepreneurship and Start-ups	2000601	03	03	10	20	70	100	28	40	03	
2.	Apparel Merchandising	2042602	03	03	10	20	70	100	28	40	03	
3.	Finishing of Fabric & Garments	2042603	03	03	10	20	70	100	28	40	03	
4.	Computer Aided Garment Design	2042604	03	03	10	20	70	100	28	40	03	
5.	Elective (Any One)		03	03	10	20	70	100	28	40	03	
(i) Fashion Communication (2042605A)					(ii) Knitting Technology(2042605B)							
Total: - 15								350	500	15		

PRACTICAL

Sr. No.	SUBJECTS	SUBJECT CODE	TEACHING SCHEME	EXAMINATION – SCHEME					Credits	
			Periods per Week	Hours of Exam.	Practical		Total Marks	Pass Marks in the Subject		
					Internal (PA)	External (ESE)				
6.	Finishing of Fabric & Garments Lab.	2042606	04 50% Physical 50% Virtual	03	15	35	50	20	02	
7.	Recycling of Waste Fabrics Lab	2042607	04 50% Physical 50% Virtual	03	15	35	50	20	02	
Total: -			08				100	04		

TERM WORK

Sr. No.	SUBJECTS	SUBJECT CODE	TEACHING SCHEME	EXAMINATION – SCHEME				Credits	
			Periods per week	Marks of Internal (PA)	Marks of External (ESE)	Total Marks	Pass Marks in the Subject		
8.	Garment Representation	2042608	04	15	35	50	20	02	
09.	Project Work & Its Presentation in Seminar-TW	2042609	04	15	35	50	20	02	
10.	Course Under Moocs /NPTEL(TW)/Others	2042610	02	15	35	50	20	01	
Total: -			10				150	05	
Total Periods per week Each of duration One Hours = 33							Total Marks = 750	24	

ENTREPRENEURSHIP AND START –UPS

Subject Code 2000601	Theory			No of Period in one session : 42			Credits 03
	No. of Periods Per Week			Full Marks			
	L	T	P/S	ESE	:	100	
	03	—	—	TA	:	10	
				CT	:	20	

Course Objectives:

The main aims of the course are to familiarize students with various concepts used in understanding processes involved in entrepreneurship and business formation and development.

- To acquire Entrepreneurial spirit and resourcefulness.
- To familiarize with various uses of human resource for earning dignified means of living.
- To understand the concept and process of entrepreneurship - its contribution and role in the growth and development of individual and the nation.
- To acquire entrepreneurial quality, competency, and motivation.
- To learn the process and skills of creation and management of entrepreneurial venture.

CONTENTS: THEORY

Unit	Name of Topics	Hrs.
Unit-I	Introduction to Entrepreneurship and Start – Ups • Definitions, Traits of an entrepreneur, Entrepreneurship, Motivation • Types of Business Structures, Similarities and differences between entrepreneurs and managers.	06
Unit-II	Business Ideas and their implementation • Discovering ideas and visualizing the business • Activity map • Business Plan	06
Unit-III	Idea to Start-up • Market Analysis – Identifying the target market, • Competition evaluation and Strategy Development, • Marketing and accounting, • Risk analysis	10
Unit-IV	Management • Company’s Organization Structure, • Recruitment and management of talent. • Financial organization and management	08
Unit-V	Financing and Protection of Ideas • Financing methods available for start-ups in India • Communication of Ideas to potential investors – Investor Pitch • Patenting and Licenses	08
Unit-VI	Exit strategies for entrepreneurs, bankruptcy, and succession and harvesting strategy.	04
	Total	42 hrs.

References:

1. The Startup Owner's Manual: The Step-by-Step Guide for Building a Great Company, Steve Blank and Bob Dorf, K & S Ranch ISBN – 978- 0984999392
2. The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses, Eric Ries, Penguin UK ISBN – 978-0670921607
3. Demand: Creating What People Love Before They Know They Want It Adrian J. Slywotsky with Karl Weber, Headline Book Publishing ISBN – 978- 0755388974
4. The Innovator's Dilemma: The Revolutionary Book That Will Change the Way You Do Business, Clayton M. Christensen, Harvard business ISBN: 978-142219602
5. Entrepreneurship and Start-ups, Ekta Sharma, FPH

SUGGESTED SOFTWARE/LEARNING WEBSITES:

- a. <https://www.fundable.com/learn/resources/guides/startup>
- b. <https://corporatefinanceinstitute.com/resources/knowledge/finance/corporatestructure/>
- c. <https://www.finder.com/small-business-finance-tips>
- d. <https://www.profitbooks.net/funding-options-to-raise-startup-capital-for-your-business/>

Course outcomes:

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

- CO : 1 Understand the dynamic role of entrepreneurship and small businesses
- CO :2 Organize and Manage a Small Business
- CO : 3 Plan the Financial strategy and Control
- CO : 4 Operate forms of Ownership for Small Business
- CO : 5 Make Strategic Marketing Planning
- CO : 6 Launch new Product or Service Development
- CO : 7 Conceive business Plan

APPAREL MERCHANDISING

Subject Code 2042602	Theory			No. of Period in one session : 42			Credits 03
	No. of Periods Per Week			Full Marks			
	L	T	P/S	ESE	:	70	
	03	—	—	TA	:	10	
				CT	:	20	

RATIONALE: After completing this course students may be employed in marketing of garments operations as well. So, they need to possess the competency of retail marketing and documentation. This course has been designed so that students may develop the skills to undertake retail marketing, export business and merchandising of apparels. The competency that can be developed through this subject is equally important for wage employment as well as self-employment.

Objectives: Students will be able to:

- i. Select the type of retail merchandisers according to need.
- ii. Select new products based on information from market research agencies.
- iii. Market the garments taking the help of the merchandising services.
- iv. Assist in export of garments using the knowledge of export process and payment procedures.
- v. Prepare the necessary documentations to help exporter.
- vi. Identify suitable markets using the information of export policies of the country and import policies of other countries.

UNIT	CONTENTS : Theory	Hrs	Marks
Unit-1	<p>Merchandising and Merchandising Services</p> <p>1.1 Types of retail merchandise: peddlers, general merchandise stores, chain departmental stores (through franchise process), mail order sellers, boutiques</p> <p>1.2 Importance of advertisement in apparel industry.</p> <p>1.3 Types of advertisement – newspaper, magazines, leaf-let, brochures, catalogues, folders, charts, posters, diary, calendars, road hoardings, vehicle hoardings, banner, radio, T.V., Internet.</p> <p>1.4 Merchandising Services: Current market information, Buyer clinics, Central merchandising, Group purchases, Order placement and follow – up, Private label program, Sales promotion services, Colour brochures and mailers, Operations and research services (Market research, Information exchange), Personal Services, Recruitment Service, Overseas Services.</p>	11	22
Unit-2	<p>Apparel Market Research Agencies</p> <p>2.1 Market Research Agencies: Trade associations and trade shows; Retail buyers groups, Fashion shows, Fashion bulletins, Retail conventions.</p>	03	08
Unit-3	<p>Export Process and Payment Procedures</p> <p>3.1 Export process: Identifying the market (Desk Research), market approach– generating inquiries, SWOT analysis, quotations and negotiation.</p> <p>3.2 Payment Options and procedures: Letter of Credit, Cash against document or D/P (document against payment), D/A (Document on acceptance), Advance Payment, Exchange Control Regulations.</p>	06	12
Unit-4	<p>Documentation for Export</p> <p>4.1 Commercial Documents: Performa invoice, Commercial invoice, Packing list, Shipping instructions, Intimation for inspection, Certificate of inspection or quality control, Insurance declaration, Certificate of insurance, Shipping order, Mate’s Receipt, Bill of lading / combined transport document, Application for Certificate of Origin, Certificate of Origin, Bill of exchange, Advice of shipment, Letter of the bank for the collection / Negotiation of document.</p> <p>4.2 Regulatory Documents: Gate–pass one/ Gate pass two, AR- 4 / 44 Forms, Shipping Bill / Bill of Export, Export application / dock challan / port trust copy of shipping bill, Receipt for payment of port charges, Vehicle ticket, Reserve Control declaration /GRPP Forms, Freight payment certificate, Insurance premium payment certificate.</p> <p>4.3 Certifications: Inspection and Statutory requirement.</p>	12	14

	4.4 International trade agreements: WTO and Bilateral Agreements. 4.5 Export Pricing.		
Unit-5	Export Policies 5.1 Government Policies for export: Sales Tax, Octroi - Claimant refund of octroi where already paid, 'N' Form procedure, Export promotion form procedure, Central Excise. 5.2 Export Incentives: Duty drawback, International Price, Market development Assistance, Income tax, Advance license, Special Import license, 100 EOU / FTZEPZ, Export Promotion Capital goods Scheme. 5.3 Role of AEPC in boosting export: Channelizing Exports, Channels of Distribution.	10	14
	Total	42	70

List of Recommended Books

Sr. No.	Title	Author	Publication
1	Fashion from Concept to Consumer	Frings Gini Stephens	PHI Learning, New Delhi latest edition
2	Fashion and Retail Merchandising	Stone Elaine, Samples J.A.	McGraw-Hill, New Delhi, latest edition
3	Inside the Fashion Business	Dickerson Kitty G.	PHI Learning, latest edition New Delhi
4	Inside the Fashion Business	Jarnow & Jeanette	Macmillan, New Delhi, latest edition
5	Fashion Merchandising	Stone Elaine	McGraw-Hill, New Delhi, latest edition
6	Garment Exports - Winning Strategies	Koshy Darlie O.	PHI Learning, New Delhi latest edition
7	Export-Import Theory, Practices, and Procedures	Belay Seyoum	Routledge

FINISHING OF FABRIC AND GARMENTS

Subject Code 2042603	Theory			No. of Period in one session : 42			Credits
	No. of Periods Per Week			Full Marks			03
	L	T	P/S	ESE	:	70	
	03	—	—	TA	:	10	
				CT	:	20	

Rationale: To impart knowledge of different finishing methods and techniques used for fabric and garment finishing which can be further applied to enhance the appearance and aesthetic value.

Objectives: The student will be able to:

1. Understand various mechanical and chemical finishes on fabrics and garments.
2. Identify and apply different wash down effects on denims and non-denims
3. Understand working of finishing machinery for fabrics and garments.

UNIT	CONTENTS :Theory	Hrs	Marks
Unit-1	Introduction to Mechanical Finishing 1.1 Introduction to finishing 1.2 Objects of finishing treatments 1.3 Classification of finishes 1.4 Objective and working principle of calendaring m/c 1.5 Mechanical finishing: decatizing, sanforising, compacting, heat setting, crabbing and sueding.	06	10
Unit-2	Chemical finishing and their application methods 2.1 Concept of exhaustion application, pad application, percent expression, wet pick up, spraying technique 2.2 Softeners: mechanism, types of softeners, properties of cationic non-ionic and silicone softeners 2.3 Resin finishing: Mechanism formulation of pad liquor for resin finishing, concept of pre cure and post cure method, wash n wear and durable press finishing. 2.4 Objective and end uses of flame retardant finish, antimicrobial finish, water repellent finish, scroopy finish, tin weighing of silk.	10	18
Unit-3	Finishing of Garments 3.1 Denim finishing: process sequence, stone wash, enzyme wash, acid wash. Advantages and limitations of all washing treatments 3.2 Stone less stone wash effects: concept of bio-polishing 3.3 Study of mud wash, chalk wash, ion wash treatments and their advantages and limitations 3.4 Concept of puckering effect, sand blasting effect and whiskering treatments	10	18
Unit-4	Machines for Garment Finishing 4.1 Principle and working procedure of garment dyeing machine, washing machine, tumble dryer, curing cabinets, pressing machine, fusing machine, hydro extractor, ironing table 4.2 Electric/steam pressing, brushing mannequins, spray booth systems.	08	14
Unit-5	Stain Removers and Specialty Finishes 5.1 Types of stain & appropriate stain removing agent, techniques for stain removal 5.2 Concept of Nano finish, UV protection finish, fragrance finish	08	10
Total		42	70

List of Recommended Books

Sr. No.	Title	Author	Publication
1	Textile Finishing	J. T. Marsh	B.I. Publications, Delhi,1986
2	Textile Finishing	Nalankilli	Digital Impressions, 288-N, Salem, Main Road, Komarapalayam,638 183 (T.N.), 1998
3	Challenges & opportunities in garment processing.	AATCC	AATCC.1998
4	Fabric Care	Dsouza N.	New age International, New Delhi.

COMPUTER AIDED GARMENT DESIGN (CAGD)

Subject Code 2042604	Theory			No of Period in one session : 42			Credits 03
	No. of Periods Per Week			Full Marks			
	L	T	P/S	ESE	:	70	
	03	—	—	TA	:	10	
			CT	:	20		

RATIONALE: This course will provide the skill in pattern making on computer through CAD software. Student will develop skills in digitization of pattern. CAD software will also provide the opportunity to use various patterns making tools for modification of the pattern and presenting stylization of the pattern. This subject will help the students to generate and modify skirt, trouser and shirt pattern as per the need of fashion industry. It will also develop skills in students related to pattern grading and marker planning on computer using CAD software.

Objectives: The student will be able to:

5. Create and modify patterns using Auto CAD and CAD software as per requirement.
- ii. Carry out pattern grading and marker planning using CAD software.

UNIT	CONTENTS : Theory	Hrs/ Week	Marks
Unit-1	<p>Introduction of apparel CAD system</p> <p>1.1 Hardware requirement.</p> <p>1.2 Comparison of Manual Pattern Making and pattern making using CAD software.</p> <p>1.3 Introduction of cad software</p> <p style="padding-left: 20px;">1.3.1 Screen layout</p> <p style="padding-left: 20px;">1.3.2 Tools bar</p> <p style="padding-left: 20px;">1.3.3 Menu bar</p> <p style="padding-left: 20px;">1.3.4 File menu</p> <p>1.4 Digitizing of Manual Patterns for Basic Bodice, Trouser etc.</p> <p style="padding-left: 20px;">1.4.1 Digitisation tools</p> <p>1.5 Introduction of Basic drawing & drafting tools</p> <p style="padding-left: 20px;">1.5.1 Unit</p> <p style="padding-left: 20px;">1.5.2 Scale</p> <p style="padding-left: 20px;">1.5.3 Rectangle</p> <p style="padding-left: 20px;">1.5.4 Line</p> <p style="padding-left: 20px;">1.5.5 Curve</p> <p style="padding-left: 20px;">1.5.6 Points</p> <p>1.6 Introduction of commands for Pattern creation & Drafting</p> <p style="padding-left: 20px;">1.6.1 Line & points menu</p> <p style="padding-left: 20px;">1.6.2 Drafting menu</p> <p style="padding-left: 20px;">1.6.3 Editing tools menu</p> <p>Assignment: Basic Bodice, Skirt, shirt Trouser)</p>	10	18
Unit-2	<p>Pattern Modification and stylization</p> <p>2.1 Pattern Modification tools</p> <p>2.2 Modification Menu</p> <p style="padding-left: 20px;">2.2.1 Reshape</p> <p style="padding-left: 20px;">2.2.2 Erase</p> <p style="padding-left: 20px;">2.2.3 Shrinkage</p> <p style="padding-left: 20px;">2.2.4 Move</p> <p style="padding-left: 20px;">2.2.5 Pins</p> <p style="padding-left: 20px;">2.2.6 Stretch</p> <p style="padding-left: 20px;">2.2.7 Extend</p> <p style="padding-left: 20px;">2.2.8 Curve length</p> <p style="padding-left: 20px;">2.2.9 Modification of curve</p> <p style="padding-left: 20px;">2.2.10 Modification of line</p> <p style="padding-left: 20px;">2.2.11 Modification of Shape</p> <p>2.3 Pattern stylization tools</p> <p style="padding-left: 20px;">2.3.1 Notch</p> <p style="padding-left: 20px;">2.3.2 Dart</p> <p style="padding-left: 20px;">2.3.3 Princes line</p> <p style="padding-left: 20px;">2.3.4 Seam allowances</p>	10	20

	<p>2.3.5 Seam & cut 2.3.6 Pivoting dart 2.4 Cut & join tools for pattern stylization 2.4.1 Horizontal & vertical 2.4.2 Cut by shape 2.4.3 Cut by angle 2.4.4 Symmetric 2.4.5 Join by two points etc. 2.4.6 Creation of fusing, facing etc.</p> <p>Analysis of the pattern in terms of accuracy.</p> <p>Assignment stylization of pattern</p>		
Unit-3	<p>Introduction of Grading 3.1 Grading tools (Creating grading size table & apply grading value based on grading rules.)</p> <p>Assignment : application of grading tools in Garment like skirt, trouser , basic bodice and shirt</p>	04	10
Unit-4	<p>Measuring tools 4.1 Presentation of Garment and Measurement analysis.</p>	03	07
Unit-5	<p>Introduction of marker planning 5.1 Marker Making style & Fabric for Marker planning 5.2 Preparation for Lay planning 5.2.1 Blocking and buffering of pieces 5.2.2 Rotation and tilting 5.2.3 Alteration 5.2.4 Matching of pieces in stripes and checks etc. 5.3 Cut order planning Sizes, lay length and ratio as per the table length. 5.4 Automatic marker planning 5.5 Exploration of the commands with assignment (Marker Planning for formal Trouser, shirt etc.)</p>	10	15
Unit-6	<p>Study of Apparel Industry 6.1 History of apparel Industry and Organizational charts 6.2 Major steps in garment production 6.2.1 Pre adoption steps: (i) Line planning and consumer research, (ii) Concept development, (iii) Quick costing, (iv) Patten development, (v) Preparing samples for various purposes, (vi) Line reviews – check on check 6.2.2 Post adoption steps: (i) Styling and fit perfection, (ii) Creation of production pattern, (iii) Gradation, (iv) Production marker development, (v) Final costing, (vi) Ware Housing, (vii) Merchandising – Role of Merchandisers.</p>	05	10
	Total	42	70

List of Recommended Books

Sr. No.	Title	Author	Publication
1	Metric pattern cutting for Menswear	Winfred Aldrich	Blackwell Science
2	How to draft Basic Pattern	Kopp Rolfo, Zelin& Gross	Fairchild Books
3	CAD for Apparel Industry	Gerru Cookin	-
4	Lectra & Tuka tech Manual /PDF files		

ELECTIVE - (Any One) - (i) FASHION COMMUNICATION

Subject Code 2042605A	Theory			No. of Period in one session : 42			Credits
	No. of Periods Per Week			Full Marks			03
	L	T	P/S	ESE	:	70	
	03	—	—	TA	:	10	
				CT	:	20	

Rationale: Fashion communication forms the core of the whole business of fashion. The subject will impart knowledge about study of purposes, procedures, methods and techniques used in various fashion promotional activities, Journalism and special events. Fashion communication students emerge as dynamic professionals qualified to offer the most effective, most creative and financially viable communication solutions for the fashion and lifestyle industry.

Objectives:

- i. To impart students the skill / knowledge of thought to text translation.
- ii. Exposure to promotion and purchases of fashion products through photography, film, digital media, advertising and journalism.

UNIT	CONTENTS :Theory	Hrs/Week	MARKS
UNIT -1	History & nuances of Industry survey of Industry 20 th Century costumes product analysis.	06	10
UNIT -2	Writing & reporting skills, Media & culture, writing for the mass media, print writing & reporting, print journalism, Media ethics.	06	10
UNIT -3	Fashion Journalism: Reporting, editing fashion trends, fashion shows, promotion of special events.	06	10
UNIT -4	Fashion photography Digital photography Graphic design, Broadcast production, Fashion advertising & copyrighting. Fashion vocabulary.	07	10
UNIT -5	Visual Merchandising & Display, store planning PR-writing, publicity.	06	10
UNIT -6	Promotional strategies in fashion communication field's current issues in Global fashion Industries Study of typical fashion designer & their style, statement & impact.	06	10
UNIT -7	PoS and consumer behavior (online consumer).	05	10
TOTAL		42	70

List of Recommended Books

Sr. No.	Title	Author	Publication
1	Fashion as Communication. vol 7	Malcolor Barnard Rout	ASQC, Quality Press , USA8, 1992
2	Fashion	Lehnert Gertrud	1991
3	History of fashions	Distolese, Rosana	1990

ELECTIVE - (Any One) - (ii) KNITTING TECHNOLOGY

Subject Code 2042605 B	Theory			No of Period in one session : 42			Credits
	No. of Periods Per Week			Full Marks			03
	L	T	P/S	ESE	:	100	
	03	—	—	TA	:	70	
				CT	:	10	
					20		

Rationale: Knitted fabrics due to its stretchable and favourable properties are in good demand and it is expected to rise day by day. Knitted fabrics find uses for under garments, sportswear, summer and winter dresses, etc. to large extent. Knitting is a major part of costume. Hosiery Garments cannot be imagined without knitting. This sector is now diversifying into synthetics, domestic fabric, carpets, technical and geotextiles.

Objectives: The student will be able to:

- i. Understand Warp & Weft knitting machine.
- ii. Identify different knitted structures.
- iii. Understand pattern cutting & sewing of knitted garments.

UNIT	CONTENTS :Theory	Hrs/ Week	MARKS
UNIT-1	Basic Concept of Knitting 1.1 Introduction, Definition of warp and weft knitting, knitting needles, Various ways of fabric manufacture, Reasons for the growth of knitting, Comparison of knitting with weaving. 1.2 Definition of basic terms in knitting (Course, Wales, Stitch Length, Needle Loop, Face Loop, Back loop, Course Length) 1.3 Hand knitting to machine knitting. 1.4 Classification of knitted fabrics and knitting machines.	05	10
UNIT-2	Weft Knitting 2.1 Single jersey machine 2.1.1 Circular weft knitting: Introduction, different parts, mechanism and their function. Different zones in circular weft knitting (creel, knitting, take-up zone). 2.1.2 Single jersey fabric: Structure, Loop Diagram, Knitting cycle for single jersey machine, Characteristic features of single jersey fabric. 2.2 Weft knitting Machines-double jersey: Types of double jersey fabric (Rib, Interlock, Purl). Details of Rib, Interlock and Purl knitting machine (Structure, loop diagram, machine features, Needle arrangement, trick arrangement, knitting cycle, principle of needle transfer). Characteristic of Rib, interlock & purl fabrics. 2.3 Weft knitted fabrics-design aspects: Basic structure of weft knitted fabrics; Different types of stitches and its effects; Representation of stitches on point paper; Concept of design, needle order and cam order. 2.4 Weft knitting – Jacquard & advanced knitting: Need of jacquard, Concept of Relanit technique, stripper, plush (pile) fabric, fleecy fabric, Stitch length and its importance. 2.5 Weft knitting – Quality and calculations: Weft knit fabric Defects, Causes & Remedies; Tests for weft knit Quality; Production calculations.	20	35
UNIT-3	Warp Knitting 3.1 Warp knitting – Introduction, Loop structure of warp knit fabric, comparison between warp & weft knitting, Elements of warp knitting. 3.2 Raschel machine: Passage of yarn through knitting machine, Knitting cycle for warp knit fabric. 3.3 Flat Bed knitting: Introduction, Types and classification, Knitting elements, Yarn path in flat knitting machine, Knitting cycle.	10	15
UNIT-4	Knit Wear Technology - Only related to knitted Garment Construction 4.1 Pattern making, block pattern 4.2 Fabric spreading 4.3 Cutting of fabric – objects & methods 4.4 Production of sample garment 4.5 Fitting problems & correction for patterns with and without darts 4.6 Study of Planning, drawing and reproduction of the knit garment.	07	10
Total		42	70

List of Recommended Books

Sr. No.	Title	Author	Publication
1	Knitting Technology	David Spencer	Woodhead Publishing - UK. 1996
2	Introduction to clothing manufacture	Terry Cooklin	Om book Services, New-Delhi. 1999
3	The Tech. of clothing Manufacture	Harold carr & Barbara Lathan	Blackwell Science, Ltd. UK. 1997
4	Warp knit engineering.	A Reisfeld	Blackwell Science Ltd. UK. 1996
5	Warp knitting production	S. Raj	Varlag mellinadtext Heidelberg GMBH. 1995
6	Warp knitting Technology	D. F. Paling	Columbine Press Ltd, Manchester. 1998
7	Knitting Technology	D. B. Ajgaonkar	Universal Publishir Mumbai. 1998
8	Knitting Technology	Iyer & Mervinger	Om book Services New-Delhi. 2000

FINISHING OF FABRIC & GARMENTS LAB

Subject Code 2042606	Pr			No of Period in one session : 56			Credits 02
	No. of Periods Per Week			Full Marks			
	L	T	P/S	Internal(PA)			
	—	—	06	External (ESE)			

Sr. No.	CONTENTS : Practical
1	Identification of different stains on garments & their removal.
2	Permanent press finishing of Cotton & Synthetic garment.
3	Application of different types of softeners on Cotton garments.
4	Application of Stiffeners on cotton, synthetic garments & their evaluation.
5	Soil release finishing of synthetic fabrics & its evaluation.
6	Water repellent finishing of Cotton fabrics & its evaluation.
7	Antimicrobial finishing of cotton, woolen and worsted garments.
8	Bio polishing treatment on cotton garments.
9	Stone wash effect on cotton garments.
10	Acid wash effect on cotton garments.

RECYCLING OF WASTE FABRICS LAB

Subject Code 2042607	Practical			No of Period in one session : 56			Credits
	No. of Periods Per Week			Full Marks		:	50
	L	T	P/S	Internal(PA)		:	15
	—	—	06	External (ESE)		:	35
							02

Rationale: The course will provide the brief knowledge about recycling of fabric. The course will help to enhance the ability of creativity and innovation. It helps to generate the new things for different purpose useful/decorative or gift items.

Objectives: The student will be able to:

- Develop new bi-products from waste materials
- Able to design and generate the useful/decorative items.

Sr. No.	CONTENTS : Practical
1	Identify and separation of cutting according to. i) Size wise ii) Color wise. iii) Quality wise.
2	Make at least two items of wall hanging with pocket to use as supporting tools to keep small things in it.
3	Make a rug with strips of small long cloths
4	Make a circular/ Square/ Triangular/Shaped decorative items based on ikkat art/ Pipili art of odisha.
5	Make decorative Flowers for both purposes flower vase and ornaments of dress/ Clip/ hair band/ belts etc.
6	Make pin and needle Cushion normal Small cushion to use very small pieces as a filling items.
7	Small birds cartons to decorate the door/entrance

GARMENT REPRESENTATION METHODS -TW

Subject Code 2042608	Term Work			No of Period in one session : 56			Credits 02
	No. of Periods Per Week			Full Marks			
	L	T	P/S	Internal(PA)	:	15	
	—	—	04	External(ESE)	:	35	

RATIONALE: This subject focuses on imparting the knowhow of illustrating clothing and clothing details for industrial and presentation purposes. The course forms proficiency in drawing and detailing garments on human figures. The focus of the subject is on development of skills in the student for representing garment on human body and designing for industry purpose.

Objectives: The student will be able to:

- i. Draw and detail garments for given human figures.

UNIT	CONTENTS : Term Work	Hours/Week
UNIT -1	Represent garments with details on the croqui- one each Menswear, women's wear, kids wear. Minimum 15 drawings.	16
UNIT -2	Perform media exploration for rendering in different mediums; Minimum 10 drawings.	16
UNIT -3	Prepare flat drawings and specification - 3 sets' Men's, Women's and kids.	16
UNIT -4	Compile and present 1 ensemble/ Illustration of the ensemble, flat drawing, specification sheet, measurement sheet, embellishment sheet.	08
TOTAL		56

PROJECT WORK & ITS PRESENTATION IN SEMINAR -TW

Subject Code 2042609	Term Work			No of Period in one session :			Credits 02
	No. of Periods Per Week			Full Marks			
	L	T	P/S	Internal(PA)	:	15	
	—	—	4	External(ESE)	:	35	

Rationale: The project work and seminar is an important subject for diploma students. This course is designed to help students in developing their self confidence. The students are expected to take up any subject related to costume design and garment technology and study it in detail and make a presentation on their plan of action. This will also develop skill in report writing to analyse design, estimating and costing, deciding a process, etc.

Objectives: The students will be able to:

1. Select a topic/problem concerned with the branch.
2. Analyse the problem.
3. Develop logical approach to solution of the problem.
4. Design a product.
5. Make estimation of materials, operation and calculate cost of the product.
6. Manufacture/fabricate the product in the workshop.
7. Test the product.
8. Prepare a project report.
9. Present in the form of a seminar.

Contents : Term Work

GROUP – A: PROJECT WORK	
UNIT-1	<u>LIVE PROBLEMS CONCERNED WITH THE BRANCH/INDUSTRIES</u>
	01.01 Selection of problem
	01.02 Situation of problem
	01.03 Analysis of problem
	01.04 Analysis of situation
	01.05 Identification of probating remedial means
	01.06 Selection of best remedial measures
	01.07 Sustainers for the problems to recurs
	01.08 Preparation of report and
	01.09 Presentation in Seminar
	The Report is to be presented and evaluated in the form of Seminar.
GROUP – B: SEMINAR	
UNIT-2	One Project out of the following:
	1. On Market Research/ Survey
	2. Comparative Study of Product/ Processes
	3. Trends in Fashion/garment design
	4. Live Industrial Problems and their problem solution(s)
	5. Design and manufacture a garment and present in a form of fashion show.
UNIT-3	Suggestive topics:
	1. Manual Power in production
	2. Role of Women Entrepreneurship in Business
	3. Impact of Window display on sales promotion
	4. Motivation in an organization
	5. Payment of wages – ways and importance
	6. Layout of a garment factory
Total	

COURSE UNDER MOOCS / NPTEL/ OTHERS -TW

Subject Code 2042610	Term Work			No of Period in one session :			Credits 01	
	No. of Periods Per Week			Full Marks		:		50
	L	T	P/S	Internal(PA)		:		15
	—	—	2	External(ESE)		:		35