



VIJAYANAGARA SRI KRISHNADEVARAYA UNIVERSITY
JNANASAGARA CAMPUS, BALLARI-583105

Garment Manufacturing Technology

I, II, III & IV Semester Syllabus

BACHELOR OF GARMENT MANUFACTURING TECHNOLOGY

Programme as per State Education Policy 2024

Under Choice Based Credit System (CBCS)

With effect from 2024-25 and onwards

Department Name: B.Sc (Garment Manufacturing Technology)

Semester – I

APPAREL PRODUCTION TECHNOLOGY-I

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT1L1
Total Contact Hours: 52	No. of Credits: 4
L:T:P 4:0:0	
Internal Assessment Marks: 20	Duration of SEE: 3 Hours
Semester End Exam Marks: 80	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Explain and they would have acquired knowledge on creation of styles, fitting techniques and pattern alteration.
2. Define body measurements and tools.
3. Classify the cutting techniques.
4. Explain about the styles and cutting process.
5. Ability to use industry terminology and equipment in appropriate ways.

APPAREL PRODUCTION TECHNOLOGY-I

Unit	Description	Hours
1	Apparel Industry: Introduction to apparel industry. Organization of apparel industry. Over view of apparel manufacturing technology.	10hrs
2	Pattern Development –Human anatomy, Human figure, types and variations, principles of 8/10 head theory. Anthropometric measurements, vertical, horizontal, circumference. Pattern making tools, & equipments.	12hrs
3	Methods of pattern making (drafting, draping, flat pattern techniques).Preparation of basic Bodice block, front, back, sleeve. Grain Line, Dart manipulation.	10hrs
4	Overview of cutting department- Machineries, fabric spreading, pattern laying, marker preparation, sorting, numbering & bundling, spreading, Types of lay- single ply, multiply, stepped ply.	10hrs
5	Forms of Spreading -One way face to face, two ways. Spreading methods-manual spreading, Spreading carriage, automatic spreading machine. fusing department-methods of fusing, fusing machines.	10hrs

References:

1. Rajesh Bheda “Managing Productivity in the Apparel Industry” CBS Publishers Distributors (2006)
2. Helen Joseph Armstrong “Pattern Making for Fashion Design”, Dorling Kindersley India Pvt.Ltd.(2009)
3. Mary Mathews, “Practical clothing construction” Thomson & co., madras, 1974.
4. Jacob Solinger., “Apparel Manufacturing Handbook”, VanNostrandReinhold Company(1980).
5. Herold Carr and Barbara Iatham “The technology of clothing manufacture”, Obookservice1994.

SEWING TECHNOLOGY

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT1L2
Total Contact Hours: 52	No. of Credits: 4
L:T:P 4:0:0	
Internal Assessment Marks: 20	Duration of SEE: 3 Hours
Semester End Exam Marks: 80	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Classify the departments of garment export and tailor units.
2. Construct export garments, in correct sequence of operations.
3. Identify the special attachments in sewing machines.
4. To gain knowledge about stitching mechanism.
5. Ability to demonstrate the operation the industrial specialty machines terminology in the apparel construction process.

SEWING TECHNOLOGY

Unit	Description	Hours
1	Introduction to sewing, history of sewing machines, types of sewing machines, parts and functions.	10hrs
2	Introduction to Garment export departments, Difference between garment industry vs Tailoring units, Layout for Cutting , Sewing And Finishing Departments, Innovation of sewing machines.	12hrs
3	Formation of stitch, stitch types and classification. Introduction to principles of sewing technology, The components of sewing machinery and equipments .	10hrs
4	Introduction to production technology , Types of production process systems with advantages and Disadvantages	10hrs
5	Seams & seam finishes- definition, types of seams and seam finishes and their applications. Sewing machine maintenance, common problems and remedies.	10hrs

References:

1. Jacob So linger., "Apparel Manufacturing Handbook", VanNostrand Reinhold Company (1980).
2. Herold Carr and Barbara Latham "The technology of clothing Manufacture", Om book service 1994.
3. Laing R.M. Webster J. "Stitches and seams", The textile institute 1998.
4. Shaeffer Clair "Sewing for apparel Industry" Prentice Hall, New Jersey 2001.
5. "Apparel Manufacturing Process", Kunz.

TEXTILE FIBERS AND YARNS

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT1L3
Total Contact Hours: 52	No. of Credits: 4
L:T:P 4:0:0	
Internal Assessment Marks: 20	Duration of SEE: 3 Hours
Semester End Exam Marks: 80	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Identify the textile fibers.
2. Classify yarns and spinning methods
3. Compare to the natural and manmade fibers.
4. Different techniques used in sewing thread manufacturing.
5. Utilize the recent techniques in textile processing.

TEXTILE FIBERS AND YARNS

Unit	Description	Hours
1	Introduction to textiles, Fiber definition, classification of textile fibers- Natural, manmade, regenerated. Characteristics of textile fibers- Identification of textile fibers-Microscopic, Burning, Solubility, Visual.	12hrs
2	Spinning-Definition, Classification of spinning, Opening, cleaning, blending, doubling, Carding, combing, drawing, roving and ring frame.	10hrs
3	Textile Yarns- Definition, classification of yarns- Simple & Fancy yarns, and their applications.	10hrs
4	Yarn properties- Yarn linear density, size, twist in yarn, and twist direction, strength & uniformity, Yarn count.	10hrs
5	Introduction to manufacture of sewing threads – Definition of sewing thread numbering, methods of manufacturing and their properties.	10hrs

References:

1. Cook J. Hand book of Textile fibre, Vo1.1&II Marrow Wat Ford,England
2. Sreenivasamoorthy.H.V. "Introduction to textile fibers",1987
3. Klien.W.G."The technology of short staple spinning "Textileinstitute Manchester,1988.
4. Shenai V.A., Textile fibres, Sevak Bombay,1980.
5. B.C. Goswamy, "Textileyarn".

APPAREL PRODUCTION TECHNOLOGY –I Lab

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT1P1
Total Contact Hours: 52	No. of Credits: 2
L:T:P 0:0:4	
Internal Assessment Marks: 10	Duration of SEE: 3 Hours
Semester End Exam Marks: 40	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Define body measurements and tools
2. Ability to manipulate patterns using half scale pattern and create new style.
3. Classify the cutting techniques.
4. Explain about the styles and cutting process.
5. Analyzing the fusing and garment finishing.
6. Apply dart manipulation techniques to design, variation in garment components.

List of Experiments / Programs (For a Lab Course)

Sl.No	Experiment / Program
1	Pattern making tools & equipments. Methods of taking measurements.
2	Drafting of basic bodice block-front, back, sleeve.
3	Dart manipulations- French dart, side seam dart, arm hole, shoulder tip, mid shoulder, Neck dart, center front dart. Pivotal and Slash Spread method.
4	Facing- Armhole, neck, front placket, neck designs.
5	Variation of style lines (any 3)

GARMENT CONSTRUCTION–I Lab

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT1P2
Total Contact Hours: 52	No. of Credits: 2
L:T:P 0:0:4	
Internal Assessment Marks: 10	Duration of SEE: 3 Hours
Semester End Exam Marks: 40	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Explain about the Fundamental components of Garment construction
2. Demonstrate the elements for Garment Decoration such as cuff, collar and piping.
3. Classify about the Garment seams and fullness.
4. Construct various forms of Plackets and Pockets.
5. Explain about the garment manufacturing unit.

List of Experiments / Programs (For a Lab Course)

Sl.No	Experiment / Program
1	Sewing machine- different kinds-functions-uses-attachment-practice on paper, stitching on fabric (straight, curves, corners and circular with back tack)
2	Sketching the Basic sewing machine and parts, threading the single needle lock stitch machine, loading bobbin and bobbin case, fixing and removing the needle, care and maintenance of sewing machines, oiling.
3	Sewing techniques - Basic hand stitches- basting, running, tacking, hand overcast, buttonhole, hemming stitches - plain & blind hemming, hook and eye.
4	Seam & seam finishes- Plain, flat fell, French, , lapped, Bound, edge , pinked, Variations of Tucks, gathers and Pleats.
5	Types of Pocket with Flap Square, Notch, Round, V-Shape. Types of Placket Single, Double, and Continuous.
6	Types of Cuff and Collar Preparation Cuff- Square, Round, Notch, Open collar, Collar with band.
7	Construction of Muslin basic bodice block - test fitting -Front, Back, and Sleeve. Piping- Neck, Armhole.

Department Name: B.Sc (Garment Manufacturing Technology)

Semester – II

FABRIC FORMATION AND STRUCTURE

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT2L1
Total Contact Hours: 52	No. of Credits: 4
L:T:P 4:0:0	
Internal Assessment Marks: 20	Duration of SEE: 3 Hours
Semester End Exam Marks: 80	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Basic knowledge about handlooms and their parts with fabric production methods
2. Detailed information about power looms and their applications with operations in sequence.
3. Working mechanism of shuttle less loom and their applications.
4. Detailed information about all types of fabric weaves with design, draft, peg plan and uses.
5. Acquire knowledge on parameters for quality control in the preparatory processes and weaving.

FABRIC FORMATION AND STRUCTURE

Unit	Description	Hours
1	Introduction to fabric. Classification of fabric. Preparatory process to weaving. Methods of Fabric formation. Properties of different fabrics.	10hrs
2	Nonwoven- Introduction, types of nonwoven production techniques-spun lace, heat bounded, pulp air'laid,wet laid, melt blown, acupuncture, stitch nonwovens and their application.	12hrs
3	Weft winding, Types of warping. Passage of material through ordinary loom. Basic weaving Concepts, Basic motions of loom-Primary, Secondary & auxiliary motions. Description of dobby, jacquard.	10hrs
4	Classification of looms-Shuttle and shuttle less looms. Study of Rapier, water jet & air jet looms and their features. Comparison of various looms.	12hrs
5	Types of Weaves- Plain, twill & satin their derivatives, Decorative weaves – Ordinary & Brighten honey comb, ordinary honey comb weave ,huck a back. on-wovenfabrics.	10hrs

References:

1. Talukdar M.K “Introduction winding and warping” Bombay privatecircu3lation
2. Ormerod, “Modern preparatution and weavingmachine”
3. Robinson & preparation”.Marks “Principles ofweaving”
4. Sengupta “Yarn
5. M.K.Talukdar” Weaving, Machines,Mechanisms,Management.

APPAREL PRODUCTION TECHNOLOGY-II

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT2L2
Total Contact Hours: 52	No. of Credits: 4
L:T:P 4:0:0	
Internal Assessment Marks: 20	Duration of SEE: 3 Hours
Semester End Exam Marks: 80	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Explain about the garment manufacturing unit.
2. Develop knowledge about Spreading, Marking and Cutting techniques.
3. Identify the special attachments in sewing machines.
4. Analyzing the fusing and garment finishing.
5. Develop knowledge on the techniques involved in grading for various sizes of body measurements.
6. Evaluate the techniques involved in pattern alteration for various body measurements and fitting problems.

APPAREL PRODUCTION TECHNOLOGY-II

Unit	Description	Hours
1	Apparel Industry: Grain lines, study of grain lines in fabrics and patterns lengthwise, widthwise bias and selvages. Grading –Definition, principles of grading, types of grading, even & uneven grading, importance of Grading.	10hrs
2	Marker making- Types of marker making, types of lay plan, marker efficiency, Layout: Principles of layout, laying of different patterns on different types of fabric.	12hrs
3	Introduction to Spec sheet and its importance, creating tech pack. Production department: selection of production system- unit production system, progressive bundle system Conveyor belt System.	10hrs
4	Sleeves-.Definition, terms, classification of sleeves-Cap, puff, petal, lantern, bell, leg-o-mutton, wedding sleeve, bishop sleeve. Sleeve body combination-Kimono, Dolmen, Raglan, Drop Shoulder, Exaggerated armhole.	10hrs
5	Collars-Introduction and classifications- Peter pan, sailor, Mandarin /Chinese collar. Skirts- Introduction , flared skirt, umbrella skirt, gathered/ pleated skirt, godet and tire skirt.	10hrs

References:

1. Rajesh Bheda “Managing Productivity in the Apparel Industry” CBS Publishers & Distributors (2006)
2. Helen Joseph Armstrong “Pattern Making for Fashion Design”, Dorling Kindersley India Pvt.Ltd.(2009)
3. Mary Mathews, “Practical clothing construction” Thomson & co., madras,1974.
4. Jacob Solinger., “Apparel Manufacturing Handbook”, VanNostrandReinhold Company(1980).
Herold Carr and Barbara Iatham“The technology of clothing manufacture”, Om book service1994

ELEMENTS OF FASHION DESIGN

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT2L3
Total Contact Hours: 52	No. of Credits: 4
L:T:P 4:0:0	
Internal Assessment Marks: 20	Duration of SEE: 3 Hours
Semester End Exam Marks: 80	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Adapt elements & principles of design in context to Textiles and Apparels.
2. Choose suitable color dimensions and categories for textiles and apparels.
3. Explain the elements, principles of design.
4. Summarize the dynamics of fashion and the role of fashion designers and fashion forecasting process.
5. Explain to plan wardrobe design dress for different occasions and events.
6. Develop theme boards based on a theme. Create patterns and garment designs deriving inspirations from a theme.
7. Prepare patterns for basic blocks using draping techniques.

ELEMENTS OF FASHION DESIGN

Unit	Description	Hours
1	Introduction to fashion design and concept of fashion designing. Fashion- origin, Elements and principles of design.	12hrs
2	Introduction to fashion house, mass fashion and boutique. Fashion cycle, trends based on climate, age and gender.	10hrs
3	Colour- Definition, dimensions of colour, hue, value and intensity. Colour schemes-its importance & application.	10hrs
4	Draping-Introduction to draping, tools and equipments. Dress forms. Grain, Preparation of muslin for draping, fabric behavior. Principles and techniques of draping.	12hrs
5	Draping of foundation patterns-Bodice(Front and back), Skirts.	10hrs

References:

1. Inside fashion design, Sharon Lee Tate, Harper & Rowpublisher.
2. The Costumes and Textiles of India. Jamila BrijBhushar,
3. D.B. Taraporevala sons & co., Bombay.
4. Historic Costume, Lesla. K.T. Chas A bernd andCo.,
5. Draping for Apparel Industry. Helen JosephArmstrong.
6. Draping for fashion design. Hilde Jaffe, NurieRelis.

FABRIC ANALYSIS Lab

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT2P1
Total Contact Hours: 52	No. of Credits: 2
L:T:P 0:0:4	
Internal Assessment Marks: 10	Duration of SEE: 3 Hours
Semester End Exam Marks: 40	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Detailed information about present trend fabrics.
2. Create design, draft and peg plan for different types of weaves.
3. Study of different fabrics characteristics and uses.
4. Study about decorative weaves (Graphical representation of weaves) with quality of fabric.
5. List out the uses of weaves.

List of Experiments / Programs (For a Lab Course)

Sl.No	Experiment / Program
1	Textile fibers-Visual identification of textile fibers. Testing Yarn- Twist ,Count, strength, uniformity of textile fibers, Sewing thread testing-Count, TPI.
2	Collection of fabrics used in apparels- a) Woven- Plain, Twill, Satin -Cotton, Silk, Polyester, Nylon. b) Nonwoven- Tea-bag, Fusing, Face clothes, composite, needle punched, napkins etc. c) Knitted – Plain -warp knitted, weft knitted, Rib, Interlock. d) Braided- Types of laces, Ribbons etc.
3	Analysis of fabric weaves – Design, Draft, Peg plan- Simple weaves for plain, Twill, Satin, Sateen, Rib, Basket, Even twill, Herring bone, Huck-a-back, Denim, Crepe.
4	Analysis of Decorative weaves- Design, Draft, Peg plan – Diamond, Honey comb, Brighten Honey comb, Velvet, Georgette, pile.
5	Calculation of analyzed fabrics- Count, GSM, Tear Strength, Ends/Inch, Pick/Inch, warp crimp%, weft crimp%.

GARMENT CONSTRUCTION–II Lab

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT2P2
Total Contact Hours: 52	No. of Credits: 2
L:T:P 0:0:4	
Internal Assessment Marks: 10	Duration of SEE: 3 Hours
Semester End Exam Marks: 40	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Prepare the construction of sleeves, collar, pocket and Yokes.
2. Prepare garment construction of skirt.
3. To gain knowledge about stitching mechanism.
4. Analyzing the fusing and garment finishing.
5. Evaluate the techniques involved in alteration for fitting problems.

List of Experiments / Programs (For a Lab Course)

Sl.No	Experiment / Program
1	Sleeves-.Definition, construction of- Cap, puff, petal, lantern, bell, leg-o-mutton, wedding sleeve, bishop sleeve.
2	Sleeve body combination-Kimono, Dolmen, Raglan, Drop Shoulder, Exaggerated armhole.
3	Collars-Introduction and construction of - Peter pan, sailor , Mandarin/ Chinese collar.
4	Pockets – Accordion Pocket (book Pocket), welt pocket – single, double with flap.
5	Skirts- Introduction- flared skirt, umbrella skirt, gathered /pleated skirt, godet and tire skirt.

Department Name: B.Sc (Garment Manufacturing Technology)

Semester – III

APPAREL MACHINERIES AND MAINTENANCE

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT3L1
Total Contact Hours: 52	No. of Credits: 4
L:T:P 4:0:0	
Internal Assessment Marks: 20	Duration of SEE: 3 Hours
Semester End Exam Marks: 80	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Classify the sewing machines.
2. Identify the sewing machine parts.
3. To know the stitch formation and sewing needles.
4. Utilize the recent techniques in RMG industries.

APPAREL MACHINERIES AND MAINTENANCE

Unit	Description	Hours
1	Sewing machine Types – Manual, Semi-automatic and Automatic sewing machines. Construction of Sewing Machine. Function and major Components of sewing machine and their application. Its care and maintenances	10hrs
2	Different types of machine beds-flatbed, raised bed, post bed, cylindrical bed and side bed, Types of belts- Flat belt and v belt....	12hrs
3	Introduction of stitches, stitch types, stitch diagrams or formation, and steps of stitch formation. Sewing machine needles- types – straight and curved, needle points, sizes and uses of needles.	10hrs
4	Transmission of power: circular motion, linear motion, displacement, velocity and acceleration. Determination of displacement and velocity diagram of needle bar and Determination of displacement and acceleration of single needle lock stitch machine.	12hrs
5	Threading, operation and application of over-lock flat-lock, double needle lock stitch, double needle chain stitch,button hole, button attach, bar-tack, zig-zag, feed off the arm sewing machines.	10hrs

References:

1. A.J Chuter “Introduction to clothing productionmanagement”
2. Jacob Soliner “Apparel manufacturing handbook”
3. Shaeffer Clair :Sewing for Apparel Industry” Prentice Hall, New Jersey 2001.
4. Sewing machine technicalmanualsM.K.Talukdar” Weaving, Machines,Mechanisms,Management.

ADVANCE PATTERN MAKING –I

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT3L2
Total Contact Hours: 52	No. of Credits: 4
L:T:P 4:0:0	
Internal Assessment Marks: 20	Duration of SEE: 3 Hours
Semester End Exam Marks: 80	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Compare basic measurement for boys and girls to develop children's basic bodies.
2. Understand to create new design frocks, school uniforms and baba suit.
3. Identifying the basic charts and to create new designs for children's.
4. Study about fasteners, shirt buttons, zippers, laces, press buttons, hook and eye.
5. Able to understand the most economic layout of pattern pieces on fabric

ADVANCE PATTERN MAKING –I

Unit	Description	Hours
1	Introduction to children's wear, Standard measurement chart for boys and girls. Drafting of children's basic bodies block. Factors influencing fabric selection for infants and children's.	10hrs
2	Definition of infant, toddlers, preschoolers, and children's. Steps involved in designing and drafting of children wear. A-line/summer frock, yoke frock, tank up jumper.	12hrs
3	Introduction and classification-School uniform for boys & girls.	10hrs
4	Designing and drafting of pattern development for children using Specification sheet.	10hrs
5	Fasteners- press buttons, hook & eye, shirt button, button holes, concealed zippers & laces.	10hrs

References:

1. Pattern Making for Fashion Design, Helen Joseph Armstrong, Dorling Kindersley India Pvt. Ltd (2006)
2. Practical clothing construction, Mary Mathews, Thomson & co., madras, 1974.
3. Apparel manufacturing Hand book, Jacob Solinger van Nostrand Reinhold Company. (1980).
4. Herold Carr and Barbara Iatham "The technology of clothing manufacture", Om book service 1994

TRADITIONAL TEXTILES

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT3L3
Total Contact Hours: 52	No. of Credits: 4
L:T:P 4:0:0	
Internal Assessment Marks: 20	Duration of SEE: 3 Hours
Semester End Exam Marks: 80	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Identifying to know about designs of brocades and weaves of different textiles.
2. Understands about colours, design, costumes and embroideries and stitches.
3. Describe about traditional motifs and their influences on different countries.
4. Examine about costumes of different countries accessories, hairstyles etc.

TRADITIONAL TEXTILES

Unit	Description	Hours
1	Traditional Textiles- Traditional textiles of India, Classification, types and uniqueness. Woven-Brocades of Banaras, blanchari, chanderi, tanchoi, kanjivaram, himru, & amru and Dacca muslins, dyed, tie and dye.	12hrs
2	Historic Costume- Introduction – origin of clothing costume of India – Traditional costumes, accessories and ornaments.	10hrs
3	Historic Costume - Different states of India. Kashmir, Gujarat, Rajasthan, Assam, Manipur, Maharashtra, Karnataka and Kerala.	10hrs
4	Study of traditional motifs of different countries and their influence on Indian textiles.	10hrs
5	Study of traditional costume of – Persian, Mughal, Egyptian, China, Rome, French and America.	12hrs

References:

1. John Gillow & Nicholas "Traditional Indian Textiles" Thames & Hudson 1993
2. Sharon Lee Tate, "Inside fashion design", Harper & Row publisher.
3. Lesla. K.T. Chas A Bernd and Co., "Historic Costume"
4. Dorris Flynn, "Costumes of India", Oxford & IBH publishing co.,

APPAREL MACHINARIES AND MAINTENANCE Lab

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT3P1
Total Contact Hours: 52	No. of Credits: 2
L:T:P 0:0:4	
Internal Assessment Marks: 10	Duration of SEE: 3 Hours
Semester End Exam Marks: 40	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Classify the different sewing machines
2. Identify the stitch formation and threads of sewing machines
3. To know the thread mount and operation of sewing machine
4. Utilize the recent techniques in RMG industries

List of Experiments / Programs (For a Lab Course)

Sl.No	Experiment / Program
1	Thread mounting & Stitch adjustment of 4 thread Over-lock machine
2	Thread mounting & Stitch adjustment of 5 thread Over-lock machine
3	Thread mounting & Stitch adjustment of 6 thread Over-lock machine
4	Thread mounting & Stitch adjustment of 3 thread Flat-lock (Loop Making) machine
5	Thread mounting & Stitch adjustment of 5 thread Flat-lock machine
6	Thread mounting & Stitch adjustment of Double needle lock stitch machine
7	Thread mounting & Stitch adjustment of 2 needle Chain stitch machine
8	Thread mounting & Stitch adjustment of Electronic Button Holler machine
9	Thread mounting & Stitch adjustment of Electronic Button Attach machine
10	Thread mounting & Stitch adjustment of Electronic Bar-tacker machine
11	Thread mounting & Stitch adjustment of Single needle lock Zig Zag machine
12	3 Assignments

GARMENT CONSTRUCTION–III Lab

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT3P2
Total Contact Hours: 52	No. of Credits: 2
L:T:P 0:0:4	
Internal Assessment Marks: 10	Duration of SEE: 3 Hours
Semester End Exam Marks: 40	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Illustrate different design and styles for children's
2. Compare basic measurement for boys and girls to develop children's basic bodices.
3. Understand to create new design frocks, school uniforms and baba suit.
4. Identifying the basic charts and to create new designs for children's.
5. To understand the most economic layout of pattern pieces on fabric.
6. Study about fasteners, shirt buttons, zippers, laces, press buttons, hook and eye.

List of Experiments / Programs (For a Lab Course)

Sl.No	Experiment / Program
1	Introduction to children's wear, Standard measurement chart for boys and girls.
2	Children's wear for boys and girls. Stitching of . A-line/summer frock, yoke frock, Tank up jumper.
3	Design and construction of School uniform for boys & girls.
4	Design and construction of children wear using Specification sheet any one.
5	Fasteners- press buttons, hook & eye, shirt button, button holes, concealed zippers & laces.

Department Name: B.Sc (Garment Manufacturing Technology)

Semester – IV

GARMENT PRODUCTION MACHINERY AND EQUIPMENTS

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT4L1
Total Contact Hours: 52	No. of Credits: 4
L:T:P 4:0:0	
Internal Assessment Marks: 20	Duration of SEE: 3 Hours
Semester End Exam Marks: 80	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Classify the cutting machines.
2. Identify the specialization sewing machines and feed mechanism.
3. To know the folders and attachments used in RMG industries.

GARMENT PRODUCTION MACHINERY AND EQUIPMENTS

Unit	Description	Hours
1	Cutting machine- classification and application – Straight, Circular or round knife cutting machine, band knife cutting machine, die cutting machine and automatic cutters.	10hrs
2	Different type of feed mechanism and their application – bottom/drop feed, needle feed, top and bottom feed, and differential feed mechanism.	12hrs
3	Different types of presser foot and their uses, types of fabric guides and their uses. Application of folders and attachments in sewing machines.	10hrs
4	Function of hook sets, types of hook sets: rotary and oscillating hook and uses, Function of loppers – types and uses.	10hrs
5	Threading and operation of embroidery machine, Conversion of design from computer to embroidery on the fabric. And automatic pocket attach machine.	12hrs

References:

1. A.J Chuter “Introduction to clothing productionmanagement”
2. Jacob Soliner “Apparel manufacturing handbook”
3. Shaeffer Clair :Sewing for Apparel Industry” Prentice Hall, New Jersey2001.
4. Sewing machine technicalmanuals.
5. Gerry cooklin “Introduction to clothing nmanufacture”
6. Charline Phillips “Sewing machine attachment Handbook”..

ADVANCE PATTERN MAKING –II

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT4L2
Total Contact Hours: 52	No. of Credits: 4
L:T:P 4:0:0	
Internal Assessment Marks: 20	Duration of SEE: 3 Hours
Semester End Exam Marks: 80	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Illustrate different design and styles for women's wear.
2. Analyze to get knowledge of measurement chart.
3. Explain the knowledge of basic shirt and trousers.
4. To create draft desired idea of one piece garment for women.
5. Creating new design and draft saree blouse and its variations, Salwar, kameez, and lehanga.
6. Construct the garment as per the pattern and drafting procedure.

ADVANCE PATTERN MAKING –II

Unit	Description	Hours
1	Introduction to women's garment - Standard measurement chart for men and women. Characteristics of men and women wear. Introduction to manual and computerized pattern development, mini marker. Software's used for pattern development.	10hrs
2	Handling special fabric- crape fabric, stretch fabrics, knit, checks, velvet, leather, fur & lace.	12hrs
3	Designing and drafting of women wear. Formal wear-Introduction, types of formal wear-Basic shirt and trouser /Skirt.	10hrs
4	Designing and drafting of women wear. Casual wear-Introduction, types of casual wear- Salwar, kameez and its variations.	10hrs
5	Designing and drafting of women wear. Ethnic wear-Introduction, types of ethnic wear- Basic saree blouse and its variations,/Lehanga and crop top.	10hrs

References:

1. Pattern Making for Fashion Design, Helen Joseph Armstrong, Dorling Kindersley India Pvt. Ltd(2006)
2. Practical clothing construction, Mary Mathews, Thomson & co., madras,1974.
3. Apparel manufacturing Hand book, Jacob Solinger van Nostrand Reinhold Company.(1980).

CHEMICAL PROCESSING OF TEXTILES

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT4L3
Total Contact Hours: 52	No. of Credits: 4
L:T:P 4:0:0	
Internal Assessment Marks: 20	Duration of SEE: 3 Hours
Semester End Exam Marks: 80	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Explain the different treatment for all type of fabrics.
2. Get the knowledge of different chemicals and auxiliaries used for wet processing and different machineries used in chemical processing.
3. Gain the knowledge of textile garment finishing techniques.
4. Classification of finishing techniques.

CHEMICAL PROCESSING OF TEXTILES

Unit	Description	Hours
1	Introduction to wet processing. Sequence of wet processing operations for cotton, silk, wool. Classification of textile processing machines	12hrs
2	Preparatory process: Singeing and types of singeing. Desizing, types of desizing, Scouring, Bleaching and mercerization. Degumming of Silk.	10hrs
3	Introduction to finishing of textiles. Objects of finishing. Classification of finishing.	10hrs
4	Detailed Study of Temporary finishes-Drying, Sanforising, Calendering & permanent finishes- Durable press, Water proof, fire proof.	10hrs
5	Garment processing and finishing. Special finishes for denim fabric. Care and maintenance of woven fabric.	12hrs

References:

1. Textile Chemistry Vo.I,II and III, R H Peters, Elsewhere Publishing Co. New York.
2. Chemical Technology of fibrous materials, Sadov, MIR Publications,1978.
3. Scouring and Bleaching of Cotton, J.T. Marsh, 1979, B IPublications.
4. Technology of Textile Processing Vo1 I,II,III, V AShenai, 1975, Sevak Publications.
5. Chemical processing of textiles- NCUTEPublication.

GARMENT PRODUCTION MACHINERY AND EQUIPMENTS Lab

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT4P1
Total Contact Hours: 52	No. of Credits: 2
L:T:P 0:0:4	
Internal Assessment Marks: 10	Duration of SEE: 3 Hours
Semester End Exam Marks: 40	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Classify the specialized machines.
2. Identify the pneumatic machines and attachments uses in sewing machines.
3. To know the about embroidery and zigzag machines.
4. Utilize the recent techniques, attachments and designs in RMG industries.

List of Experiments / Programs (For a Lab Course)

Sl.No	Experiment / Program
1	Thread mounting & Stitch adjustment of 2needle Feed Of The Arm machine
2	Thread mounting, Setting and operating the Auto Zig machine
3	Thread mounting, Setting and operating the Key Holer machine
4	Thread mounting, Setting and operating the Embroidery machine
5	Thread mounting, Setting and operating the waist band attach machine
6	Setting and operating the collar trimming, turning & blocking machine
7	Setting and operating the cuff blocking machine
8	Setting and operating the front placket attachment folder in double needle lock stitch machine
9	Setting and operating the bottom hem folder in single needle lock stitch machine
10	Setting and operating the waist band folder in waist band attach machine
11	Thread mounting Setting and operating of the Automatic pocket attach machine
12	3 Assignments

GARMENT CONSTRUCTION–IV Lab

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24MJGMT4P2
Total Contact Hours: 52	No. of Credits: 2
L:T:P 0:0:4	
Internal Assessment Marks: 10	Duration of SEE: 3 Hours
Semester End Exam Marks: 40	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Analyze to get knowledge of measurement chart.
2. Explain the knowledge of basic shirt and trousers.
3. To create stitching of desired idea for designer costume for women.
4. Creating new construction of saree blouse and its variations, Salwar, kameez, and lehanga.

List of Experiments / Programs (For a Lab Course)

Sl.No	Experiment / Program
1	Introduction to women's garment - Standard measurement chart for men and women. Characteristics of men and women wear.
2	Designing and construction of women wear. Formal wear-Introduction ,types of formal wear-Basic shirt and trouser /Skirt. Consumption & calculation of fabric, trims and supporting materials, costing of the product.
3	Designing and construction of women wear. Casual wear-Introduction, types of casual wear- Salwar, kameez and its variations. Consumption & calculation of fabric, trims and supporting materials, costing of the product.
4	Designing and construction of women wear. Ethnic wear-Introduction, types of ethnic wear- Basic saree blouse and its variations,/Lehanga and crop top. Consumption & calculation of fabric, trims and supporting materials, costing of the product.

SEC-1 Retail Management

Course Title: B.Sc (Garment Manufacturing Technology)	Course Code: 24SCGMT4L1
Total Contact Hours: 28	No. of Credits: 2
L:T:P 1:1:0	
Internal Assessment Marks: 10	Duration of SEE: 1.5*Hours
Semester End Exam Marks: 40	

Course Outcomes (COs):

At the end of the course, students will be able to:

1. Gain knowledge on the fundamentals of retailing
2. Relate the aspects of customer behaviour and retailing
3. Acquire Knowledge on management of merchandise
4. Understand the importance of effective location for retailing
5. Understand the importance of atmospherics and space management of retail outlets
6. Develop skills in retail pricing and strategies in promotional activities.

SEC-1 Retail Management

Unit	Description	Hours
1	Introduction to Retail, Marketing, Management and Merchandising, terminologies Fashion retailing-History, Scope, Importance, Types (Domestic and International) techniques, channel of distribution.	5hrs
2	Marketing – types, four P's, fashion promotion advantages, trade shows, exhibitions, fashion shows, market survey and research .	5hrs
3	Merchandising -Types of merchandising, concepts, merchandise planning, sampling-Importance, counter sample.Brand building-Introduction, strategies, image building, brand expansion, global trends.	8hrs
4	Retail merchandiser, concept, quick response, Just –in-Time, merchandiser calendar, trend analysis, forecast analysis, concepts of apparel product line, planning, directing, coordinating and controlling.	5hrs
5	Introduction to customer relationship management, measuring customer relationship management, customer response, satisfaction, loyalty, customer relation and complaint management.	5hrs

References:

1. Lusch and Dunne “ Retail Management” South- Western Publishing, 2002
2. Pradhan, Swapna “ Retailing Management" Tata Mcgraw Hill Publications, 2011
3. Vedamani, Gibson “ Retail Management” Jaico Publications, 2012
4. Rabolt and Judy “Concepts and Cases in RetailandMerchandise Management" Fairchild Publication.
