VIJAYANAGARA SRI KRISHNADEVARAYA UNIVERSITY

JNANASAGARA CAMPUS, BALLARI-583105

Department of Studies in

Garment Manufacturing Technology

II Semester Syllabus

Bachelor of Science

With effect from 2021-22 and onwards

Semester-II

DSC4-FABRIC FORMATION AND STRUCTURE

Course Title: B.Sc (Garment Manufacturing Technology)	**Course code:** 21BSC2C4GML
Total Contact Hours: 42	**Course Credits: 3**
Internal Assessment Marks: 40	**Duration of SEE:3**
Semester End Examination Marks: 60	

Course Outcomes (CO's):

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.

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

1. To study about structure of woven fabrics
2. To enable students to prepare point paper designs for basic and figured weaves.
3. To explain about design, draft and peg plan for various weaves
4. To study the production methods of fabric with preparation and parts of the weaving machine with passage.
5. To study the shuttle and shuttle less looms and their comparison for shedding mechanisms.
6. To study the basic motions of loom.

DSC4-FABRIC FORMATION ANDSTRUCTURE

Unit	Description	Hours
1	Introduction to fabric. Classification of fabric. Preparatory process to weaving. Methods of Fabric formation. Properties of different fabrics.	9hrs
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.	8hrs
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.	8hrs
4	Classification of looms-Shuttle and shuttle less looms. Study of Rapier, water jet & air jet looms and their features. Comparison of various looms.	8hrs
5	Types of Weaves- Plain, twill & satin their derivatives, Decorative weaves – Ordinary & Brighten honey comb, ordinary honey comb weave ,huck a back. on-wovenfabrics.	9hrs

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.

DSC5-APPAREL PRODUCTIONTECHNOLOGY-II

Course Title: B.Sc (Garment Manufacturing Technology)	**Course code:21BSC2C5GML**
Total Contact Hours: 42	**Course Credits: 3**
Internal Assessment Marks: 40	**Duration of SEE:3**
Semester End Examination Marks: 60	

Course Outcomes (CO's):

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.

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

1. To gain knowledge about spreading, marking and cutting techniques.
2. To study about the grading techniques.
3. To study about the sewing machineries and stitching mechanisms.
4. To know the specialized machines used in garment industry.
5. To learn about the fabric cutting of sleeves, collars and skirts.

DSC5-APPAREL PRODUCTIONTECHNOLOGY-II

Unit	Description	Hours
1	Apparel Industry: Grain lines, study of grain lines in fabrics and patterns lengthwise, widthwise bias and selvedges. Grading –Definition, principles of grading, types of grading, even & uneven grading, importance of Grading.	8hrs
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.	8hrs
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.	8hrs
5	Collars-Introduction and classifications-Mandarin collar, shirt collar, Chinese collar. Built-up neck lines. Skirts- Introduction ,Basic skirt, flared skirt, umbrella skirt, gathered skirt, pleated skirt, godet and tire skirt.	8hrs

References:

1. Rajesh Bheda "Managing Productivity in the Apparel Industry" CBSPublishers & 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", Om book service1994

DSC6-ELEMENTS OF FASHIONDESIGN

Course Title: B.Sc (Garment Manufacturing Technology)	**Course code: 21BSC2C6GML**
Total Contact Hours:42	**Course Credits: 3**
Internal Assessment Marks: 40	**Duration of SEE:3**
Semester End Examination Marks: 60	

Course Outcomes (CO's):

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.

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

1. To know the structural and decorative designs.
2. To gain knowledge about the elements of art and principles of design applied in different area.
3. To understand different colors moods and their meaning.
4. To design the garment for unusual figures.
5. To study the draping of basic bodices blocks.

DSC6-ELEMENTS OF FASHIONDESIGN

Unit	Description	Hours
1	Introduction to fashion design and concept of fashion designing. Fashion- origin, Elements and principles of design.	9hrs
2	Introduction to fashion house, mass fashion and boutique. Fashion cycle, trends based on climate, age and gender.	8hrs
3	Colour- Definition, dimensions of colour, hue, value and intensity. Colour schemes-its importance & application.	8hrs
4	Draping-Introduction to draping, tools and equipments. Dress forms. Grain, Preparation of muslin for draping, fabric behavior. Principles and techniques of draping.	8hrs
5	Draping of foundation patterns-Bodice(Front and back), Skirts.	9hrs

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.

DSC4P-FABRIC ANALYSIS Lab

Course Title: B.Sc (Garment Manufacturing Technology)	**Course code: 21BSC2C4GMP**
Total Contact Hours: 56	**Course Credits: 2**
Internal Assessment Marks: 25	**Duration of SEE: 3**
Semester End Examination Marks: 25	

Course Outcomes (CO's):

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.

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

1. To collect the present trend fabric samples
2. To analyse the textile sample to find the weaves of fabric.
3. Final fabric weaves can be represented on point graphs.
4. To find the TPI, PPI, crimp%, count and GSM of the fabric by using different machines.

List of Experiments

Practical -1
Textile fibers-Visual identification of textile fibers. Testing Yarn- Twist ,Count, strength, uniformity of textile fibers, Sewing thread testing-Count, TPI.
Practical -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.
Practical -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.
Practical -4
Analysis of Decorative weaves- Design, Draft, Peg plan – Diamond, Honey comb, Brighten Honey comb, Velvet, Georgette, pile.
Practical -5
Calculation of analyzed fabrics- Count, GSM, Tear Strength, Ends/Inch, Pick/Inch, warp crimp%, weft crimp%.

DSC5-GARMENT CONSTRUCTION–II Lab

Course Title: B.Sc (Garment Manufacturing Technology)	**Course code: 21BSC2C5GMP**
Total Contact Hours:56	**Course Credits: 2**
Internal Assessment Marks: 25	**Duration of SEE: 3**
Semester End Examination Marks: 25	

Course Outcomes (CO's):

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.

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

1. To gain knowledge about Sleeves and collars using different techniques.
2. To study about the making of pockets, yokes and skirts.
3. To know the specialized machines used in garment industry.
4. To learn the techniques for good fit.
5. To learn about the fabric cutting.

List of Experiments

Practical -1
Sleeves-.Definition, construction of- Cap, puff, petal, lantern, bell, leg-o-mutton, wedding sleeve, bishop sleeve. Sleeve body combination-Kimono, Dolmen, Raglan, Drop Shoulder, Exaggerated armhole.
Practical -2
Collars-Introduction and construction of - Peter pan, sailor, formal shirt collar , Mandarin/ Chinese collar, Built-up neck lines.
Practical -3
Pockets – Accordion Pocket (book Pocket), welt pocket – single, double with flap.
Practical – 4
Yokes-Definitions, purpose, types-with fullness & without fullness.
Practical -5
Skirts- Introduction ,Basic skirt, flared skirt, umbrella skirt, gathered skirt, pleated skirt, godet and tire skirt.

CBCS Question Paper Pattern for UG Semester End Examination with effect from the AY 2021-22

Languages /Discipline Core Courses (DSC) & Open Elective Courses (OEC)

Paper Code: **Paper Title:**

Time: 3 Hours **Max. Marks: 60**

Instruction: Answer all Sections

SECTION-A

1. Answer the following sub-questions, each sub-question carries **ONE** mark. (10X1=10)

a).

b).

c).

.

.

j).

Note for Section-A: Two sub-questions from each unit.

SECTION-B

Answer any **FOUR** of the following questions, each question carries **FIVE** marks. (4X5=20)

2.

3.

4.

5.

6.

7.

Note for Section-B: Minimum One question from each unit (Q No 2 to 6) and remaining one question from unit II to V (Q.No. 7)

SECTION-C

Answer any **THREE** of the following questions, each question carries **TEN** marks. (3X10=30)

8.

9.

10.

11.

12.

Note for Section- C: One question from each unit. Sub-questions such as ‘a’ and ‘b’ may be given for a question in section-C only.

****

QUESTION PAPER PATTERN (Practical)
I/II Sem. B.Sc (Garment Manufacturing Technology)
(2021-22 Onwards)

Paper Code: **Paper Title:**

Time: 3 Hours **Max. Marks: 25**

Instruction: Answer all Questions

1. Experiment-1	10 Marks
2. Experiment-2	10 Marks
3. Viva Voice	05 Marks

SEC & AECC Subjects

Paper Code: **Paper Title:**

Time: 1 Hours **Max. Marks: 30**

There shall be Theory examinations of **Multiple Choice Based Questions [MCQs]with Question Paper of A, B, C and D Series** at the end of each semester for **AECCs (Environmental Studies and (ii) Constitution of India) and SECs (SEC-1: Digital Fluency, SEC-2: Artificial Intelligence, SEC-3: Cyber Security and SEC-4: Societal Communication) for the duration of One hour (First Fifteen Minutes for the Readiness of OMR and remaining Forty-Five Minutes for Answering thirty Questions). The Answer Paper is of OMR (Optical Mark Reader) Sheet.**

****

Note:

Add the Scheme of Evaluation of UG ------ practicals.

****