

# VIJAYANAGARA SRI KRISHNADEVARAYA UNIVERSITY JNANASAGARA CAMPUS, BALLARI-583105

# Department of Studies in Garment Manufacturing Technology

IV Semester Syllabus

Bachelor of Science

With effect from 2021-22 and onwards

Name of the Department: Garment Manufacturing Technology IV Semester

#### DSC10-GARMENT PRODUCTION MACHINERY AND EQUIPMENTS

| Course Title: B.Sc (Garment Manufacturing | Course code:21BSC4C10GML |
|---|--------------------------|
| Technology)                               |                          |
| 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. Classify the cutting machines.
- 2. Identify the specialization sewing machines and feed mechanism.
- 3. To know the folders and attachments used in RMG industries.

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

- 1. To gain the basic knowledge and sources of garment production machineries and equipments.
- 2. To study the cutting machines classification and applications of manual, semi automatic and automatic cutting machines.
- 3. To study the types and uses of presser foots, fabric guides, hook sets and loopers.
- 4. To enable the students to know about specialize machines, attachments and folders uses in garment industry.

DSC10-GARMENT PRODUCTION MACHINERY AND EQUIPMENTS

| Unit | Description  | Hours |
|------|--|-------|
| 1    | Cutting machine- classification and application – Straight, Circular or round knife cuttingmachine, band knife cutting machine, die cutting machine and automatic cutters. |       |
| 2    | Different type of feed mechanism and their application – bottom/drop feed, needle feed, topand bottom feed, and differential feed mechanism.                               | 8hrs  |
| 3    | Different types of presser foot and their uses, types of fabric guides and their uses.  Application of folders and attachments in sewing machines.                         | 8hrs  |
| 4    | Function of hook sets, types of hook sets: rotary and oscillating hook and uses, Function of loppers – types and uses.   | 8hrs  |
| 5    | Threading and operation of embroidery machine, Conversion of design from computer to embroidery on the fabric. And automatic pocket attach machine.                        | 9hrs  |

#### 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 technicalmanuals.
- 5. Gerry cooklin "Introduction to clothing nmanufacture"
- 6. Charline Phillips "Sewing machine attachment Handbook".

Date

Course Coordinator

Subject Committee Chairperson

#### **DSC11-ADVANCE PATTERN MAKING-II**

| Course Title: B.Sc (Garment Manufacturing Technology) | Course code:21BSC4C11GML |  |
|---|--------------------------|--|
| 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. 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.

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

- 1. To create different types of women garments by using different techniques.
- 2. To gain knowledge of standard measurement charts for men and women.
- 3. To develop types of formal wear and its drafting's
- 4. To develop and design the flat pattern techniques of casual wear and style lines.
- 5. To develop the patterns of ethnic wear like saree blouse, and its variations.
- 6. To give knowledge about complete a garment with different style to form a designer costume.

#### DSC11-ADVANCE PATTERNMAKING-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. |       |
| 2             | Handling special fabric- crape fabric, stretch fabrics, knit, checks, velvet, leather, fur &lace.   |       |
| 3             | Designing and drafting of women wear. Formal wear-Introduction, types of formal wear-Basic shirt and trouser /Skirt.  | 9hrs  |
| 4             | Designing and drafting of women wear.  Casual wear-Introduction, types of casual wear-One piece garment with style line,/Salwar, kameez and its variations.   | 8hrs  |
| 5<br>Referenc | Designing and drafting of women wear.<br>Ethnic wear-Introduction, types of ethnic wear- Basic saree blouse and its variations,/Lehanga and crop top.   | 8hrs  |

#### 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.
- Apparel manufacturing Hand book, Jacob Solinger van Nostrand Reinhold Company. (1980).

#### **DSC12-CHEMICAL PROCESSING OFTEXTILES**

| Course Title: B.Sc (Garment Manufacturing Technology) | Course code:21BSC4C12GML |  |
|---|--------------------------|--|
| 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 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.

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

- 1. To study the treatments given fabric in sequence.
- 2. To study the different machineries used for wet processing.
- 3. To study the preparatory process in detail.
- 4. To study the different finishing techniques used for fabric and their classification.
- 5. To study garment finishing and denim finishing.

#### **DSC12-CHEMICAL PROCESSING OFTEXTILES**

| Unit | Description   |      |
|------|---|------|
| 1    | Introduction to wet processing. Sequence of wet processing operations for cotton, silk, wool. Classification of textile processing machines | 9hrs |
| 2    | Preparatory process: Singing and types of singeing. Desizing, types of desizing, Scouring, Bleaching and mercerization. Degumming of Silk.  | 8hrs |
| 3    | Introduction to finishing of textiles. Objects of finishing. Classification of finishing.   | 8hrs |
| 4    | Detailed Study of Temporary finishes-Drying, Sanforising, Calendering & permanent finishes- Durable press, Water proof, fire proof.         | 8hrs |
| 5    | Garment processing and finishing. Special finishes for denim fabric. Care and maintenance of woven fabric.                                  | 9hrs |

#### 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 Vol I,II,III, V AShenai, 1975, Sevak Publications.
- 5. Chemical processing of textiles- NCUTEPublication.

Date

Course Coordinator

Subject Committee Chairperson

# DSC10P- GARMENT PRODUCTION MACHINERY AND EQUIPMENTS Lab

| Course Title: B.Sc (Garment Manufacturing | Course code:21BSC4C10GMP |  |
|---|--------------------------|--|
| Technology)                               |                          |  |
| 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. 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.

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

- 1. To gain the basic knowledge and sources of specialized sewing machines.
- 2. To study the semi automatic and automatic sewing machine types, operation, application and stitch adjustment.
- 3. To study the pneumatic machine setting and operation.
- 4. To enable the students to know about specialize machines, pneumatic machines, attachments and folders uses in garment industry.

# List of Experiments

| Practical -1   |
|--|
| Thread mounting & Stitch adjustment of 2needle Feed Of The Arm machine                         |
| Practical -2   |
| Thread mounting, Setting and operating the Auto Zig machine                                    |
| Practical -3   |
| Thread mounting, Setting and operating the Key Holer machine                                   |
| Practical -4   |
| Thread mounting, Setting and operating the Embroidery machine                                  |
| Practical -5   |
| Thread mounting, Setting and operating the waist band attach machine                           |
| Practical -6   |
| Setting and operating the collar trimming, turning & blocking machine                          |
| Practical -7   |
| Setting and operating the cuff blocking machine  |
| Practical -8   |
| Setting and operating the front placket attachment folder in double needle lock stitch machine |
| Practical -9   |
| Setting and operating the bottom hem folder in single needle lock stitch machine               |
| Practical -10  |
| Setting and operating the waist band folder in waist band attach machine                       |
| Practical -11  |
| Thread mounting Setting and operating of the Automatic pocket attach machine                   |
| Practical -12  |
| 3 Assignments  |
| Date Course Coordinator Subject Committee Chairnerson  |

#### **DSC11P- GARMENT CONSTRUCTION-IV Lab**

| Course Title: B.Sc (Garment Manufacturing Technology) | Course code:21BSC4C11GMP |  |
|---|--------------------------|--|
| 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. 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.

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

- 1. To create different types of women garments.
- 2. To gain knowledge of standard measurement charts for men and women.
- 3. To develop types of formal wear and its construction.
- 4. To design construction of casual wear and style lines.
- 5. To design construction of ethnic wear like saree blouse, and its variations.

# **List of Experiments**

## Practical -1

Introduction to women's garment

- Standard measurement chart for men and women.

Characteristics of men and women wear.

#### **Practical -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.

#### **Practical -3**

Designing and construction of women wear.

Casual wear-Introduction, types of casual wear-One piece garment with style line,/Salwar, kameez and its variations. Consumption & calculation of fabric, trims and supporting materials, costing of the product.

#### Practical – 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.

Date

Course Coordinator

Subject Committee Chairperson