

**VIJAYANAGARA SRI KRISHNADEVARAYA UNIVERSITY
JNANASAGARA CAMPUS, BALLARI-583105**

Title of the Program: B.Sc (Garment Manufacturing Technology)

I SEMESTER

**B.Sc. (GMT) I Semester
DSC1-APPAREL PRODUCTION TECHNOLOGY-I**

COURSE CODE: 21BSC1C1GML

**Credits-3
Max Marks -100**

**Contact hrs-42
No Hrs week-4hr/w**

Objectives:

- To study the methods of pattern making and its alternation.
- To gain knowledge in drafting, draping and flat pattern alteration.
- To learn the techniques for good fit.
- To learn about the manufacturing apparel units.

COURSE OUTCOME:

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.

Unit-1

Apparel Industry: Introduction to apparel industry. Organization of apparel industry. Over view of apparel manufacturing technology.

8 hrs

Unit-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.

9 hrs

Unit-3

Methods of pattern making (drafting, draping, flat pattern techniques).Preparation of basic Bodice block, front, back, sleeve. Grain Line, Dart manipulation.

9 hrs

Unit-4

Overview of cutting department- Machineries, fabric spreading, pattern laying, marker preparation, sorting, numbering & bundling, spreading, Types of lay- single ply, multiply, stepped ply.

8hrs

Unit-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.

8hrs

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”, VanNostrand Reinhold Company(1980).
5. Herold Carr and Barbara Iatham “The technology of clothing manufacture”, Obookservice 1994.

**B.Sc. (GMT) I Semester
DSC2- SEWING TECHNOLOGY**

COURSE CODE: 21BSC1C2GML

**Credits-3
Max Marks -100**

**Contact hrs-42
No Hrs week-4hr/w**

Objectives:

- To learn the classification of sewing machines, parts and its functions.
- To acquire knowledge and understand about fundamentals of sewing.
- To Gain Knowledge in Stitches, Seams and seam Finishes.
- To enable the students a basic garment construction details.
- To learn about the parts and functions of sewing machines and tools used for garment construction.

COURSE OUTCOME:

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

Unit-1 **8 hrs**
Introduction to sewing, history of sewing machines, types of sewing machines, parts and functions.

Unit-2 **9 hrs**
Introduction to Garment export departments, Difference between garment industry vs Tailoring units, Layout for Cutting , Sewing And Finishing Departments, Innovation of sewing machines.

Unit-3 **8hrs**
Formation of stitch, stitch types and classification. Introduction to principles of sewing technology, The components of sewing machinery and equipments .

Unit-4 **8hrs**
Introduction to production technology , Types of production process systems with advantages and Disadvantages

Unit-5 **9 hrs**
Seams & seam finishes- definition, types of seams and seam finishes and their applications. Sewing machine maintenance, common problems and remedies.

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.

B.Sc. (GMT) I Semester

COURSE CODE: 21BSC1C3GML

Credits-3
Max Marks-100

DSC3-TEXTILE FIBERS AND YARNS

Contact hrs-42
No Hrs weeks-4hr/w

Objectives:

- To gain the basic knowledge and sources of textile fibers.
- To study the spinning process sequentially with specialized machineries.
- To study the types of yarns and their applications with different properties.
- To enable the students to know about basic manufacturing fabrics.

COURSE OUTCOME:

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.

Unit-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.

9 hrs

Unit-2

Spinning-Definition, Classification of spinning, Opening, cleaning, blending, doubling,
Carding, combing, drawing, roving and ring frame.

9 hrs

Unit-3

Textile Yarns- Definition, classification of yarns- Simple & Fancy yarns, and their applications.

8 hrs

Unit-4

Yarn properties- Yarn linear density, size, twist in yarn, and twist direction, strength & uniformity, Yarn count.

8hrs

Unit-5

Introduction to manufacture of sewing threads – Definition of sewing thread numbering.
methods of manufacturing and their properties.

8hrs

Reference:

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 "Textile institute Manchester,1988.
4. Shenai V.A., Textile fibres, Sevak Bombay, 1980.
5. B.C. Goswamy, "Textile yarn".

B.Sc. (GMT) I Semester

COURSE CODE: 21BSC1C1GMP

DSC1P-APPAREL PRODUCTION TECHNOLOGY –I

Credits-2

Max Marks-50

Contact hrs-56

No Hrs week-4hr/w

Objectives:

- To study the methods of pattern making and its alternation.
- To gain knowledge in drafting, draping and flat pattern Technique.
- To learn the techniques for good fit.
- To learn about the fabric cutting.

COURSE OUTCOME:

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.

Practical -1

Pattern making tools & equipments. Methods of taking measurements.

Practical -2

Drafting of basic bodice block-front, back, sleeve.

Practical -3

Dart manipulations- French dart, side seam dart, arm hole, shoulder tip, mid shoulder, Neck dart, center front dart. Pivotal and Slash Spread method.

Practical -4

Facing- Armhole, neck, front placket, neck designs.

Practical -5

Variation of style lines (any 3)

B.Sc. (GMT) I Semester

COURSE CODE: 21BSC1C2GMP

DSC2P-GARMENT CONSTRUCTION-I

Credits-2
Max Marks-50

Contact hrs-56
No Hrs week-4hr/w

Objectives:

- To create skilled work force for working in garments manufacturing Industry.
- To acquire knowledge and understand about fundamentals of sewing.
- To gain the knowledge about the Basic garment Techniques.
- To identify the components in garment construction.

COURSE OUTCOME:

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.

Practical -1

Sewing machine- different kinds-functions-uses-attachment-practice on paper, stitching on fabric (straight, curves, corners and circular with back tack)

Practical -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.

Practical -3

Sewing techniques - Basic hand stitches- basting, running, tacking, hand overcast, buttonhole, hemming stitches - plain & blind hemming, hook and eye.

Practical -4

Seam & seam finishes- Plain, flat fell, French, , lapped, Bound, edge , pinked, Variations of Tucks, gathers and Pleats.

Practical -5

Types of Pocket with Flap Square, Notch, Round, V-Shape. Types of Placket Single, Double, and Continuous.

Practical -6

Types of Cuff and Collar Preparation Cuff- Square, Round, Notch, Open collar, Collar with band.

Practical -7

Construction of Muslin basic bodice block - test fitting -Front, Back, and Sleeve. Piping- Neck, Armhole.