SARVAJANIK UNIVERSITY
Sarvajanik College of Engineering and Technology
Bachelor of Engineering

B.E. : Semester –VII

Subject Name: GARMENT TECHNOLOGY **Subject Code: BTTT14704**

Type of course: Professional Elective -V
Prerequisite (if any): Zeal to learn the subject

List of Courses where this course will be prerequisite :

Rationale:
This subject covers the entire process flow of garment manufacturing process. Also it covers various stages of product development in Design department, cutting room operations, post production processes and warehousing of apparel industry. Also it covers Automation and role of CAD/CAM in garment industry.

Teaching and Examination Scheme:

TEACHING SCHEME				Theory Marks			Practical Marks		Total
L	T	P	C	TEE	CA1	CA2	TEP	CA3	
3	0	0	3	60	25	15	-	-	100

CA1: Continuous Assessment (assignments/projects/open book tests/closed book tests CA2: Sincerity in attending classes/class tests/ timely submissions of assignments/self-learning attitude/solving advanced problems TEE: Term End Examination TEP: Term End Practical Exam (Performance and viva on practical skills learned in course) CA3: Regular submission of Lab work/Quality of work submitted/Active participation in lab sessions/viva on practical skills learned in course

BSC: basic science course /ESC: Engineering Science Course /HSM: Humanities and management /PCC: Professional Core course /PEC: professional Elective course /OEC: Open Elective course/ MD: mandatory non-credit course

Content:

Sr. No.	Content	Total Hrs
1	**Introduction to the apparel industry:** classification as per size, labour etc, Process flow of different departments	2
2	**Design department** : Forecasting, Designing, collection planning, pattern making, technology involved, sample garment and pattern grading	4
3	**Garment manufacturing process** : methods and machinery involved in cutting room: Marker planning, Spreading, Cutting,	8
4	**Preparation for sewing** : All the operations	2
5	**Sewing**: various types of seams and stitches, Sewing machine feed mechanism, Sewing needle and Sewing thread, Sewing machine beds, sewing problems, sewability, various trims	6
6	**Sewing Machinery:** Basic simple machines like lock stitch, over lock etc. and work aids. Simple automatics like button holder, button sewing, bar tack etc. Advanced machinery	6
7	**Automation & use of cad/cam :** in designing, pattern making, pattern grading, computerized marker, automatic spreader, computerized cutting etc	4
8	**Concept of 3D body scanning**	1
9	**Fusing & Pressing Technology**: Requirements & means, Advantages over sewing, fusing machinery, Purpose, categories, means of fusing & Pressing machinery	6
10	**Garment finishing & inspection :** packing ,warehousing	4
11	**Garment production systems.**	2

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Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10	**10**	**20**	**5**	**5**	**10**

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Sr no	Title of book /article	Author(s)	Publisher and details like ISBN	Year of publication	Publication Edition
1	Technology of Clothing Manufacture.	Carr Herold, Latham, Barbara.,	Blackwell science ltd/Oxford ,(0-632-03748-2)	1999	2nd
2	Introduction to Clothing Manufacture	Cooklin, Gerry.	Blackwell science ltd/Oxford ,(0-632-02661-8)	1991	Ist
3	Garment Technology for Fashion Designers	Cooklin, Gerry.	Blackwell science ltd/Oxford ,(0-632-04775-5	1997	Ist
4	Apparel Manufacturing Handbook	Jacob Solinger	Van Nostrand Reinhold Co, New York	1980	

5	Apparel Machinery and Equipment	R.Rathinamoorthy and R. Surjit	Woodhead Publishing India	2015	I[st]
6	Garment Manufacturing Technology	Rajkishore Nayak & Rajiv Padhye	The Textile Institute, Manchester,	2015	I[st]
7	Apparel Manufacturing Technology	Karthik, P.Ganesan and D. Gopalaksrishnan	Taylor &Francis Group,	2017	I[st]
8	Engineering Apparel Fabrics and Garments	J. Fan and L. Hunter	Woodhead Publishing; ISBN 978-1-84569-134-9	2009	

Course Outcomes: After learning the course the students should be able to

Sr. No.	CO statement	Marks % weightage
CO-1	Describe the structure & classification of apparel industry	05
CO-2	Understand &illustrate stages of product development in Design department & & various preproduction processes	09
CO-3	Describe & illustrate various garment manufacturing processes and types of machinery	48
CO-4	Understand & implement role of It in garment indusrey	11

CO-5	Describe & illustrate various post production processes and types of machinery	22
CO-6	Categorize and understand the different types of production technologies	05

Mapping with POs:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO-1	1	2	0	0	0	0	0	0	2	1	1	1	3	2	1
CO-2	3	3	1	1	1	1	1	1	2	2	2	1	3	2	3
CO-3	3	3	1	1	1	1	1	1	2	2	2	1	3	2	3
CO-4	3	2	2	2	3	2	1	1	2	2	2	2	3	2	3
CO-5	3	3	1	1	1	1	1	1	2	2	2	1	3	2	3
CO-6	2	2	1	0	1	1	1	0	2	1	1	1	3	2	2
Rationale*	3	2	1	1	1	1	1	1	2	2	2	1	3	2	3

Rationale* : This subject provides the fundamentals of Garment manufacturing process. Also it covers entire pre production, cutting room and post production process and machinery used for that. Hence this

subject correlates with PO's in broader sense.

List of Open learning website: https://nptel.ac.in, world wide web, Google search Engine etc.

List of Open Source Software: -clothing Design software- Tech packer- (Demo)

ERP for garment manufacturing-(Demo)