

1. SALIENT FEATURES OF THE DIPLOMA PROGRAMME IN KNITTING TECHNOLOGY

1. Name of the Programme : Diploma programme in Knitting Technology
2. Duration of the Programme : Three years
3. Entry Qualifications : Matriculation or as prescribed by the State Board of Technical Education, Haryana
4. Intake : 30 or as prescribed by the State Board of Technical Education, Haryana
5. Pattern of the Programme : Semester system (Each semester is of 16 weeks and each week has 36–40 contact hours for academic work).

6) Industrial Training:

Six weeks of industrial training is included after IV semester during summer vacation. Internal assessment out of 50 marks and external assessment out of another 50 marks will be added in 5th semester. Total marks allotted to industrial training will be 100.

Distribution of Marks:

- Daily diary and reports of training - 50 Marks
- Viva Voce (External) - 50 Marks

7) Ecology and Environment:

As per Govt. of India directives, a subject on Environmental Education has been incorporated in the scheme.

8) Student Centred Activities:

A provision of 5-6 hrs per week has been made for organizing Student Centred Activities for overall personality development of students. Such activities will comprise of co-curricular activities like extension lectures, library studies, games, hobby clubs e.g. photography, painting, singing, seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, Civil Defence/ Disaster Management activities etc.

2. EMPLOYMENT OPPORTUNITIES

The following job opportunities are visualized for a diploma holder in Knitting Technology:

- a) Supervisor in the Knitting machine sections in the private/public limited undertakings and in the small scale industry
- b) Technical expert/section in charge of warp or weft knitting sections in large undertakings.
- c) Technical Assistant/Field Inspector/Senior Technical Assistant/Promotion Officer in Government Undertakings
- d) Technical Assistant in dyeing, garment manufacturing & designing sections in knitting industry
- e) Technical Assistant/Executive/Merchandiser in textile export houses
- f) Inspector/technical assistant in textile committees, textile corporations, small scale industry & govt. organization.
- g) Teachers in Technical Institutes
- h) As an entrepreneur of a knitting unit

3. **COMPETENCY PROFILE OF DIPLOMA HOLDERS IN KNITTING TECHNOLOGY**

Based on the activities, the following are the competencies of a diploma holder in Knitting Technology:

1. Knowledge and skills pertaining to fibres, yarn, fabric, dyes and chemicals - their characteristics, specifications and usage
2. Understanding of various perspectives of knitting
3. Knowledge and skills regarding erection, working and maintenance of hand operated, power driven, semi automatic, automatic and computerized warp, and weft knitting machines
4. Knowledge of quality control aspects and norms during knitting
5. Ability in designing knitted structures and patterns
6. Knowledge of a textile processes for production of knitted fabric
7. Understanding regarding basic principles of management and laws and acts for safety and welfare of workers
8. Awareness regarding important statutory requirements concerning pollution control
9. Knowledge concerning plant layout technical textiles
10. Basic skills in reading drawings/electrical diagrams pertaining to knitting machinery
11. Skill in identification of defects in knitted fabrics, their causes and remedial measures
12. Skill to convert knitted fabrics into different types of garments
13. Knowledge and skills regarding processing of yarn and knitted fabric
14. Knowledge about techniques of pressing, folding, labeling, packaging and marketing of knitted goods
15. Awareness regarding entrepreneurial support system and computer applications
16. Knowledge and skills in preparing material and cost estimates for knitted product
17. Knowledge of different types of knitting machines pertaining to designing systems
18. Knowledge about types, combinations and application of colours
19. Knowledge of applied science and other engineering science subjects which are useful for understanding subjects of knitting technology.

4. DERIVING CURRICULUM AREAS FROM COMPETENCY PROFILE

Sr. No.	Competency Profile	Curriculum Areas
1.	Knowledge and skills pertaining to fibres, yarn, fabric, dyes and chemicals - their characteristics, specifications and usage	<ul style="list-style-type: none"> ▪ Textile fibres ▪ Knitting Calculations
2.	Understanding of various perspectives of knitting	<ul style="list-style-type: none"> ▪ Basic Knitting Technology ▪ Flat Knitting Technology ▪ Warp Knitting Technology
3.	Knowledge and skills regarding erection, working and maintenance of hand operated, power driven, semi automatic, automatic and computerized warp, and weft knitting machines	<ul style="list-style-type: none"> ▪ Circular Jacquard Machine ▪ Power driven circular machine ▪ Advanced Machine Technology
4.	Knowledge of quality control aspects and norms during knitting	<ul style="list-style-type: none"> ▪ Textile Physical Testing ▪ Textile Chemical Testing
5.	Ability in designing knitted structures and patterns	<ul style="list-style-type: none"> ▪ Knitting Structure and Analysis ▪
6.	Knowledge of Textile Processes for production of knitted fabric	<ul style="list-style-type: none"> ▪ Textile Processes
7.	Understanding regarding basic principles of management and laws and acts for safety and welfare of workers	<ul style="list-style-type: none"> ▪ Basics of Management
8.	Awareness regarding important statutory requirements concerning pollution control	<ul style="list-style-type: none"> ▪ Dyeing and Finishing ▪ Environmental Education
9.	Knowledge concerning chemical textiles	<ul style="list-style-type: none"> ▪ Technical Textiles
10.	Basic skills in reading drawings/electrical diagrams pertaining to knitting machinery	<ul style="list-style-type: none"> ▪ Engineering Drawing
11.	Skill in identification of defects in knitted fabrics, their causes and remedial measures	<ul style="list-style-type: none"> ▪ Knitted Structure and Analysis ▪ Project Work
12.	Skill to convert knitted fabrics into different types of garments	<ul style="list-style-type: none"> ▪ Garment Manufacturing Technology

13	Knowledge and skills regarding processing of yarn and knitted fabric	<ul style="list-style-type: none"> ▪ Garment Manufacturing Technology ▪ Dyeing and Finishing ▪ Process House Management
14	Knowledge about techniques of pressing, folding, labeling, packaging and marketing of knitted goods	<ul style="list-style-type: none"> ▪ Garment Manufacturing Technology ▪ Dyeing and Finishing
15	Awareness regarding entrepreneurial support system and computer applications	<ul style="list-style-type: none"> ▪ Communication Skills ▪ Entrepreneurial Awareness ▪ Basics of Information Technology ▪ Computer Applications in Knitting Technology ▪
16	Knowledge and skills in preparing material and cost estimates for knitted product	<ul style="list-style-type: none"> ▪ Estimating and Costing
17	Knowledge of different types of knitting machines pertaining to designing systems	<ul style="list-style-type: none"> ▪ Textile colour and design ▪ Circular Jacquard Machine ▪ Advanced Machine Technology
18	Knowledge about types, combinations and application of colours	<ul style="list-style-type: none"> ▪ Textile colour and design
19	Knowledge of applied science and other engineering science subjects which are useful for understanding subjects of knitting technology	<ul style="list-style-type: none"> ▪ Applied Chemistry ▪ Applied Mathematics ▪ Applied Physics

5. ABSTRACT OF CURRICULUM AREAS

Following is the abstract of curriculum areas:

a) General Studies

1. Basics of Management
2. Communication Skills
3. Entrepreneurial Awareness
4. Personality Development
5. Environmental Education
6. Employability Skills
7. Basics of Information Technology

b) Applied Sciences

8. Applied Physics
9. Applied Chemistry
10. Applied Mathematics

c) Engineering Sciences

11. Engineering Drawing
12. Workshop Practice
13. Knitting Mathematics

d) Technology Subjects

14. Textile Fibres
15. Basic Knitting Technology
16. Flat Knitting Technology
17. Warp Knitting Technology
18. Textile Physical Testing
19. Textile Chemical Testing
20. Power Driven Circular Machine Technology
21. Basics of Design and Colour
22. Knitted Structure and Analysis
23. Circular Jacquard Machines
24. Dyeing and Finishing
25. Technical Textiles and its Applications
26. Warp Structure and Analysis
27. Garment Manufacturing Technology
28. Process House Management
29. Advanced Machine Technology
30. Estimating and Costing
31. Computer Applications in Knitting Technology
32. Industrial Training
33. Major Project Work

6. HORIZONTAL AND VERTICAL ORGANIZATION

Sr. No.	Subjects	Distribution in Hours in Various Semesters					
		I	II	III	IV	V	VI
1.	Communication Skills	5	5	-	-	-	-
2.	Applied Mathematics	5	5	-	-	-	-
3.	Applied Physics	6	-	-	-	-	-
4.	Applied Chemistry	5	5	-	-	-	-
5.	Engineering Drawing	6	-	-	-	-	-
6.	General Workshop Practice	6	-	-	-	-	-
7.	Textile Fibres	-	7	-	-	-	-
8.	Basic Knitting Technology	-	-	7	-	-	-
9.	Flat Knitting Technology	-	-	7	7	-	-
10.	Basics of IT	4	-	-	-	-	-
11.	Computer Applications in Knitting Technology	-	-	4			
12.	Knitting Mathematics	-	-	3	-	-	-
13.	Power driven circular machine technology	-	-	-	6	-	-
14.	Knitted structure and Analysis	-	-	-	-	2	-
15.	Basics of design and colour	-	9	-	-	-	-
16.	Basics of Textile Processes	-	5	-	-	-	-
17.	Textile Physical testing	-	-	7	-	-	-
18.	Textile Chemical Testing	-	-	-	7	-	-
19.	Circular Jacquard Machine	-	-	-	-	8	5
20.	Warp Knitting Technology	-	-	-	6	8	-
21.	Estimating and Costing	-	-	-	3	-	-
22.	Dyeing and Finishing	-	-	7	6	-	-
23.	Technical Textiles and its Applications	-	-	-	-	5	-
24.	Garment Manufacturing Technology	-	-	-	-	7	6
25.	Advanced Machine Technology	-	-	-	-	-	5
26.	Process House Management	-	-	-	-	-	4
27.	Environmental Education	-	-	-	-	3	-
28.	Basics of Management	-	-	-	-	-	3
29.	Employability Skills	-	-	-	-	2	2
30.	Industrial Training	-	-	-	-	-	-
31.	Major Project Work	-	-	-	-	-	10
32.	Student Centered Activities	3	4	5	5	5	5
	Total	40	40	40	40	40	40