

9. RESOURCE REQUIREMENTS

9.1 Physical Resources

9.1.1 Equipment Requirement:

Sr. No.	Description	Qty
Textile Printing and Finishing Lab.		
1	Mechanical stirrers (of different motor H.P.)	4
2.	Laboratory padding mangle	1
3.	Laboratory curing chamber	1
4.	Mini steamer loop ager	1
5.	Ph meter	1
6.	Block printing table (wooden/steel)	2
7.	Screen printing table (Industrial) for hand screen printing	1
8.	Colour mixing plastic containers	25
9.	Paste preparation steel mugs of different capacity	20
10.	Measuring cylinders of different capacity (10 ml, 50 ml, 100ml, 250 ml, 500ml, 1lt)	10
11.	Baby screens	10
12.	Industrial screen	10
13.	Flammability tester	10
14.	Hot plate	2
15.	Exposure table for making screen with glass top	1
16.	Computer system (with standard accessories) and software for printing designs for making screens	1
17.	Stainless steel dye baths (double walled) for dyeing of bigger samples	1
18.	Steam iron	1
19.	Simple iron	1
20.	Electric oven	2
21.	Dye baths for smaller samples	4
22.	Rota dyer	1

23.	Spray guns	2
24.	Transfer printing machine	1
25.	Blocks of different types (single colours) (Wooden, metal, casting, pin)	1 each
26.	Colour matching cabinet	1
27.	C.R.A tester	1
28.	Grey scales	1 set
29.	Crock meter	1
30.	Perspiro meter	1
31.	Electric dryer	2
32.	Basket centrifuge	1
33.	Semi automatic washing machine	1
34.	Squeezes for screen printing (of different sizes)	20
35.	Electric balance	1
Textile Dyeing Lab		
36.	High Temperature high pressure water bath beaker dyeing machine	1
37.	Glycerin bath beaker dyeing machine	1
38.	Dye baths	15
39.	Laboratory jigger	1
40.	Laboratory winch	1
41.	Laundrometer	1
42.	Padding mangle	1
43.	Hank dyeing machine	1
44.	Rota dyer	1
45.	Basket centrifuge	1
46.	Wrap reel	4
47.	Electronic balance	2
48.	Hot plates	5
49.	Semi automatic washing machine	1
50.	Refrigerator	1

51.	Analytical balance	6
52.	pH meter (electronic)	1
53.	Measuring cylinders of different capacity (10ml, 50ml, 100ml, 250ml, 500ml, and 1lt)	5 each
54.	Stainless steel glasses for dye baths	50
55.	Electric oven	2
56.	Colour mixing containers of plastic and steel (mugs)	20 each
57.	Glass rods	200
58.	Grey scale (set)	1
Computer Colour Matching Lab and Textile Chemical Testing Lab		
59.	Computer system (with standard accessories) with software for colour matching	1
60.	Spectrophoto meter compatible with the computer for e.g. colour scan	1
61.	Colour matching cabinet	1
62.	Grey scale set (for fading and fastness)	1
63.	Crock meter	1
64.	Perspiro meter	1
65.	Air conditioner	1
66.	Lea strength tester	1
67.	Cloth strength tester	1
68.	Wrap reel	1
69.	Quadrant balance	1
70.	Beesley balance	1
71.	C.R.A. tester	1
72.	Pilling tester	1
73.	Twist – Detwist tester	1
74.	Bursting strength tester	1
75.	Tearing strength tester	1

9.1.2 Space Requirement:

Norms and standards laid down by All India Council for Technical Education (AICTE) may be followed to work out space requirement in respect of class rooms, tutorial rooms, drawing halls, laboratories, space required for faculty, student amenities and residential area for staff and students.

9.1.3 Furniture Requirement

Norms and standards laid down by AICTE be followed for working out furniture requirement for this course.

9.2 Human Resources:

Weekly work schedule, annual work schedule, student teacher ratio for various group and class size, staffing pattern, work load norms, qualifications, experience and job description of teaching staff workshop staff and other administrative and supporting staff be worked out as per norms and standards laid down by the AICTE

Following are the qualifications and experience for the teaching faculty and technical staff

Qualification	Experience
<p><u>Lecturer</u> (5 No.) First class B.E./B.Tech in Textile Chemistry/Processing.</p>	NIL
<p><u>Sr.Lecturer</u> (1 No.) First class B.E./B.Tech in in Textile Chemistry/Processing.</p>	5 years experience in teaching/industry/research at the level of Lecturer or equivalent
<p><u>Head of Department</u> (1 No.) M.E./M.Tech in Textile Chemistry/Processing. with first class at Bachelor's level</p>	8 years experience in teaching/industry/research at the level of Lecturer or equivalent
<p><u>Note:</u> Candidates from industry/profession with B.E./B.Tech first class in Textile Chemistry/Processing or equivalent and with recognized professional work experience equivalent to Master's degree and 8 years experience may also be eligible for the post of H.O.D.</p>	
<p><u>Workshop Superintendent</u> (1 No.) First class B.E./B.Tech in Mechanical Engineering/Production Engineering or equivalent OR</p>	2 years industrial experience
<p>Diploma in Textile Chemistry/Processing or equivalent</p>	8 years industrial experience
<p><u>Instructor/Technician</u> (2 Nos.)</p>	
<p>Diploma first class in Mechanical Engineering/Production Engineering or equivalent</p>	2 years practical experiences in teaching/industry at appropriate level
<p><u>Instructor/Technician</u> (2 Nos.) First class diploma in Textile Processing/Textile Chemistry.</p>	2 years practical experiences in teaching/industry at appropriate level

10. RECOMMENDATIONS FOR EFFECTIVE IMPLEMENTATION OF CURRICULUM

The following recommendations are made for effective implementation of this curriculum.

- a) While imparting instructions, stress should be laid on the development of practical skills in the students. For this purpose, as far as possible, classes should be conducted in the laboratories itself.
- b) Industrial visits should be organized as and when required to clarify the concepts, principles and practices involved. For this purpose, time has already been provided in student centered activities
- c) Extension lectures from professionals should be organized to impart instructions in specialized areas
- d) There is no need of purchasing very costly equipment. Efforts may be made to establish linkages with local industrial organizations
- e) Considerable stress should be laid on repair and maintenance of equipment
- f) Teachers should generate competitiveness among the students for the development of professional skills.
- g) Teachers should take working drawings from the industries and provide practices in reading these drawings
- h) Hobby clubs and other co-curricular activities be promoted to develop creativity in the students
- i) Teachers should be sent for training in the new areas incorporated in their curriculum
- j) Students should be given well thought out project assignments. This can help students in developing creativity and confidence in them for gainful employment (wage and self)

A **project bank** should be developed by the Department in consultation with local industry.