

# MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION, MUMBAI

## Diploma Programme in **Fashion and Clothing Technology**

### I – Scheme

#### Programme Structure

#### **Programme Educational Objectives (PEOs)** (*What s/he will continue to do even after 3-5 years of working in the industry*)

- PEO 1. Provide socially responsible, environment friendly solutions to Fashion and Clothing Technology related broad-based problems adapting professional ethics.
- PEO 2. Adapt state-of-the-art Fashion and Clothing technologies to work in multi-disciplinary work environments.
- PEO 3. Solve broad-based problems individually and as a team member communicating effectively in the world of work.

#### **Program Outcomes (POs)** given by NBA. (*What s/he will be able to do at the entry point of industry soon after the diploma programme*)

- PO 1. **Basic knowledge:** Apply knowledge of basic mathematics, sciences and basic engineering and design to solve the broad-based Fashion and Clothing Technology problems.*
- PO 2. **Discipline knowledge:** Apply Fashion and Clothing Technology knowledge to solve broad-based Fashion and Clothing Technology related problems.*
- PO 3. **Experiments and practice:** Plan to perform experiments and practices to use the results to solve broad-based Fashion and Clothing Technology problems.*
- PO 4. **Engineering tools:** Apply relevant Fashion and Clothing Technology and tools with an understanding of the limitations.*
- PO 5. **The engineer and society:** Assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to practice in field of Fashion and Clothing Technology.*
- PO 6. **Environment and sustainability:** Apply Fashion and Clothing Technology solutions also for sustainable development practices in societal and environmental contexts.*
- PO 7. **Ethics:** Apply ethical principles for commitment to professional ethics, responsibilities and norms of the practice also in the field of Fashion and Clothing Technology.*
- PO 8. **Individual and team work:** Function effectively as a leader and team member in diverse/ multidisciplinary teams.*
- PO 9. **Communication:** Communicate effectively in oral and written form.*
- PO 10. **Life-long learning:** Engage in independent and life-long learning activities in the context of technological changes also in the Fashion and Clothing Technology and allied industry.*

#### **Program Specific Outcomes (PSOs)** (*What s/he will be able to do in the Fashion and Clothing Technology specific industry soon after the diploma programme*)

- PSO1. Fashion Clothing and Accessories:** Produce environment friendly Fashion, clothing and accessories at optimal cost.
- PSO2. Clothing Technology Equipment:** Use various types of Fashion and clothing technology equipment effectively and efficiently.

## Notes for All the Semesters

1. Every student has to **separately pass in End-Semester-Examination (ESE)** for **both theory and practical** by securing minimum of 40% marks, (i.e. 30 out of 75, 28 out of 70, 20 out of 50, and 10 out of 25).
2. **Progressive Assessment (PA) for Theory** includes Written Exam/micro projects/ Assignment/Quiz/Presentations/attendance according to the nature of the course. The scheme and schedule for progressive assessment should be informed to the students and discussed with them at the start of the term. This scheme should also be informed in writing to the principal of the institute.
3. Teachers need to give **marks judiciously for PA of theory and practicals** so that there is always a **reasonable correlation** between the **ESE marks** obtained by the student and the **PA marks** given by **respective teachers for the same student**. In case the PA marks in some courses of some students seems to be relatively inflated in comparison to ESE marks, then MSBTE may review the PA records of such students.
4. For developing self-directed learning skills, from each course about 15-20% of the topics/sub-topics, which are relatively simpler or descriptive in nature are to be given to the students for self-study and proper learning of these topics should be assured through classroom presentations by students (see implementation guideline for details).

Programme Code: .....I – Scheme Diploma Programme in Fashion and Clothing Technology												
I – Semester												
Weighted mean score	S. No. & (Rank No.) of Report	Industry Questionnaire S.No.	Course Title	Teaching Scheme/Week			Credits (L+T +P)	Examination Scheme				
				L	T	P		Theory		Practical		Grand Total
								ESE	PA	ESE	PA	
4.00	G1(1)	37	English (Common to all)	3	-	2+	5	70	30*	25	25	150
2.00	24(3)	1	Basic Science (Common to all)	2	-	2	4	35	15*	25	25	200
2.00	35(3)	1	Physics Chemistry	2	-	2	4	35	15*	25	25	
2.00	28(2)	3	Basic Mathematics (Common to all)	4	2	-	6	70	30*	-	-	100
4.00	G4(1)	45	Fundamentals of ICT (Common to all)	2#	-	2	4	-	-	25	25~ <sup>1</sup>	50
3.00	15(3)	26	Engineering Graphics Mech. Gp.(AE, ME, PT, FG, EE, CE, CH, PS, DC, TC, TX)	2#	-	4	6	-	-	50	50~ <sup>2</sup>	100
4.00	G3(1)	44	Workshop Practice (DC, TC, TX)	-	-	4	4	-	-	50	50~ <sup>2</sup>	100
<b>Total</b>				<b>15</b>	<b>2</b>	<b>16</b>	<b>33</b>	<b>210</b>	<b>90</b>	<b>200</b>	<b>200</b>	<b>700</b>

(#):No theory Exam; (\*): Under the theory PA, Out of 30 marks, 10 marks are for micro-project assessment (5 marks each for Physics and Chemistry) to facilitate integration of COs and the remaining 20 marks is the average of 2 tests to be taken during the semester for the assessment of the cognitive domain LOs required for the attainment of the COs; (\$):Online Exam; (+): Language Lab Practical (~):For the courses having ONLY practical examination, the PA has two parts – marks, for~<sup>1</sup> (i) practical part - 15 marks(60%) (ii) micro-project part - 10 marks (40%) and for~<sup>2</sup> (i) practical part - 30 marks (60%) (ii) micro-project part - 20 marks (40%).

### Legends

**L:** Lecture      **T:** Tutorial      **P:** Practical      **ESE:** End Semester Exam      **PA:** Progressive Assessment

**Note:** Blue highlights are courses common to all programmes and yellow highlights are courses common with other specific programmes.

Programme Code:..... I – Scheme Diploma Programme in Fashion and Clothing Technology												
II – Semester												
Weighted mean score	S. No. & (Rank No.) of Report	Industry Questionnaire S. No.	Course Title	Teaching Scheme/Week			Credits (L+T+P)	Examination Scheme				
				L	T	P		Theory		Practical		Grand Total
								ESE	PA	ESE	PA	
3.00	A 30,I 22	35	Basics of Textile Manufacture	3	-	2	5	70	30*	25	25	150
3.00	A 37, 18	29	Basics of Fashion and Apparel	3	-	-	3	70	30*	-	-	100
4.00	I 4,I 5	11,12	Elements of Embroidery	-	-	2	2	-	-	25	25 <sup>~1</sup>	50
4.00	A8 I8, A17	5	Principles of Textile and Fashion Design	4	-	4	8	70	30*	50	50	200
4.00	I6, I 23, A23 A25	7,23	Fundamentals of Fashion Illustration	-	-	4	4	-	-	50	50 <sup>~2</sup>	100
4.00	A1, A2 A20, I2	8	Pattern Making	2	-	4	6	70	30*	50@	50	200
4.00	G3	44	Elements of Mechanical, Electrical and Electronics Engineering	3	-	2	5	70	30*	25	25	150
4.00	G1(1)	37	Business Communication Using Computers (Common to all)	2\$	-	-	2	35\$	15	-	-	50
<b>Total</b>				<b>17</b>	<b>-</b>	<b>18</b>	<b>35</b>	<b>385</b>	<b>165</b>	<b>225</b>	<b>225</b>	<b>1000</b>

(#):No theory Exam; (\$):Online Exam; (\*): Under the theory PA, Out of 30 marks, 10 marks are for micro-project assessment to facilitate integration of COs and the remaining 20 marks is the average of 2 tests to be taken during the semester for the assessment of the cognitive domain LOs required for the attainment of the COs; (~<sup>1</sup>): For the courses having ONLY practical, the PA has two parts (i) practical part - 15 marks (60%) (ii) micro- project part - 10 marks (40%).(~<sup>2</sup>): For the courses having ONLY practical examination, the PA has two parts – marks for~<sup>2</sup> (i) practical part - 30 marks (60%) (ii) micro-project part – 20 marks (40%); @:with external examiner.

Programme Code:..... I – Scheme Diploma Programme in Fashion and Clothing Technology												
III – Semester												
Weighted mean score	S. No. & (Rank No.) of Report	Industry Questionnaire S.No.	Course Title	Teaching Scheme/Week			Credits (L+T+P)	Examination Scheme				
				L	T	P		Theory		Practical		Grand Total
								ESE	PA	ESE	PA	
3.00	29(3)	I22	Indian and World Costumes	3	-	2	5	70	30*	25	25	150
3.00	25(3)	I17	Advanced Pattern Making	2	-	4	6	70	30*	50	50	200
2.00	22(3)	I35	Knitted and Non -Woven Fabric Technology	3	-	2	5	70	30*	25	25	150
4.00	7(4)	6	Textile Testing	3	-	2	5	70	30*	25	25	150
3.00, 4.00	26(3), 33(4), 34(4)	I3,19,25	Garment Component Manufacturing	4	-	4	8	70	30*	50	50	200
3.00	11(2)	14	Surface Ornamentation	-	-	2	2	-	-	25	25 <sup>~1</sup>	50
<b>Total</b>				<b>15</b>	<b>-</b>	<b>16</b>	<b>31</b>	<b>350</b>	<b>150</b>	<b>200</b>	<b>200</b>	<b>900</b>

(\*): Under the theory PA, Out of 30 marks, 10 marks are for micro-project assessment to facilitate integration of COs and the remaining 20 marks is the average of 2 tests to be taken during the semester for the assessment of the cognitive domain LOs required for the attainment of the COs; (~<sup>1</sup>): For the courses having ONLY practical, the PA has two parts (i) practical part - 15 marks (60%) (ii) micro- project part - 10 marks (40%).

Programme Code:..... I – Scheme Diploma Programme in Fashion and Clothing Technology												
IV – Semester												
Weighted mean score	S. No. & (Rank No.) of Report	Industry Questionnaire S. No.	Course Title	Teaching Scheme/Week			Credits (L+T +P)	Examination Scheme				
				L	T	P		Theory		Practical		Grand Total
								ESE	PA	ESE	PA	
2.00	12(3), 34(4)	13	Design and Manufacture of Women's Wear	1#	-	4	5	-	-	50	50 <sup>~2</sup>	100
3.00	I 11(2)	I14	Fashion Accessories	3	-	2	5	70	30*	25	25	150
1.00	35(4)	I22	Fabric Structure	3	-	2	5	70	30*	25	25	150
3.00	12(2)	13	Clothing Production, Machinery and Equipments	4	-	4	8	70	30*	50	50	200
2.00	24(3), 30(3)	1,21	Technology of Pre-treatment and Colouration	3	-	4	7	70	30*	50	50 <sup>~2</sup>	200
2.00	I 17(3)	28	Computer Aided Design and Manufacturing	1#	-	4	5	-	-	50	50 <sup>~2</sup>	100
<b>Total</b>				<b>15</b>	<b>-</b>	<b>20</b>	<b>35</b>	<b>280</b>	<b>120</b>	<b>250</b>	<b>250</b>	<b>900</b>

(#):No theory Exam; (\*): Under the theory PA, Out of 30 marks, 10 marks are for micro-project assessment to facilitate integration of COs and the remaining 20 marks is the average of 2 tests to be taken during the semester for the assessment of the cognitive domain LOs required for the attainment of the COs; (~<sup>2</sup>): For the courses having ONLY practical examination, the PA has two parts – marks for~<sup>2</sup> (i) practical part - 30 marks (60%) (ii) micro-project part – 20 marks (40%).

**Note**

- During Summer Break after **IV semester** (i.e. between IV and V Semester), Polytechnics would ensure mandatory placement of students for 6 weeks industrial training. Preferably, the industry where students would be placed should be large or medium scale, however if such industries are not available, then students can also be placed in small or very small industries but it should be relevant to the branch or discipline of engineering. **This training would be evaluated during V semester.**
- The allotment of the group of students and orientation for industrial training shall be done before the end of IV semester.
- Students should prepare report of training, which will be evaluated during V semester.

Programme Code:..... I – Scheme Diploma Programme in Fashion and Clothing Technology													
V – Semester													
Weighted mean score	S. No. & (Rank No.) of Report	Industry Questionnaire S. No.	Course Title	Teaching Scheme/Week			Credits (L+T+P)	Examination Scheme					
				L	T	P		Theory		Practical		Grand Total	
								ESE	PA	ESE	PA		
			MSBTE guidelines and industry feedback	Industrial Training (During summer break after 4 <sup>th</sup> semester)	-	-	6 <sup>^</sup>	6 <sup>^</sup>	-	-	75	75	150
2.00	12(3), 34(4)	13	Design and Manufacture of Men's Wear	1#	-	4	5	-	-	50	50 <sup>~2</sup>		100
1.00	32(4)	36	Eco Friendly Clothing Technologies and Energy Conservation	3	-	4	7	70	30*	50	50		200
3.00	9(2)	20	Finishing of Fabrics and Garments	3	-	2	5	70	30*	25	25		150
1.00	36(4)	27	Production Management in Garment Industry	3	-	-	3	70	30*	-	-		100
2.00	G8(3), 29(3), 19(3)	8,18, 32	Garment Exports and Documentation	3	-	-	3	70	30*	-	-		100
4.00	G4(1)	40	Entrepreneurship Development (Common to all)	2	-	2	4	50\$	-	25	25		100
4.00, 3.00	6(1), I23	I7, 23	Fashion Illustration	-	-	2	2	-	-	25	25 <sup>~1</sup>		50
			Minor Project (Common to all)	-	-	4	4	-	-	50	50 <sup>~2</sup>		100
<b>Total</b>				<b>15</b>	<b>-</b>	<b>24<sup>^</sup></b>	<b>39<sup>^</sup></b>	<b>330</b>	<b>120</b>	<b>300</b>	<b>300</b>		<b>1050</b>

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(^): Though 6 credits are allocated for Industrial Training it is only for awarding marks. As far as teaching load/time table preparation is considered, each faculty would be assigned with one batch of students (equivalent to practical batch size) for guiding the preparation of industrial training report and its evaluation. For this purpose 1 hour (or two hours on working Saturdays) teaching load would be considered.

#### Note

a) Evaluation of industrial training and its reports is to be done during this semester. Credits of Industrial Training will not affect the framing of the time table.

Programme Code:..... I – Scheme Diploma Programme in Fashion and Clothing Technology												
VI – Semester												
Weighted mean score	S. No. and (Rank No.)	Industry Questionnaire S.No.	Course Title	Teaching Scheme/Week			Credits (L+T+P)	Examination Scheme				
				L	T	P		Theory		Practical		Grand Total
								ESE	PA	ESE	PA	
2.00	12(3), 34(4)	13	Design and Manufacture of Kids' Wear	1#	-	4	5	-	-	50	50 <sup>-1</sup>	100
4.00, 3.00	9(2), G9(3)	20	Clothing Quality Control	3	-	2	5	70	30*	25	25	150
2.00	19(3)	32	Apparel Merchandizing	3	-	-	3	70	30*	-	-	100
4.00	IG5(1)	39	Human Resource Management for Apparel Manufacturing	3	-	-	3	70	30*	-	-	100
3.00	31(3)	15	Fashion Design and Presentation	-	-	2	2	-	-	25	25 <sup>-1</sup>	50
3.00, 4.00	31(3), 6(1)	15,7	Fashion Communication	3	-	2	5	70	30*	25	25	150
4.00	G1(1)	37	Technical Writing (Common to all)	-	-	2	2	-	-	25	25	50
			Major Project (Common to all)	-	-	6	6	-	-	75	75	150
<b>Total</b>				<b>13</b>	<b>-</b>	<b>18</b>	<b>31</b>	<b>280</b>	<b>120</b>	<b>225</b>	<b>225</b>	<b>850</b>

(#):No theory Exam; (\*): Under the theory PA, Out of 30 marks, 10 marks are for micro-project assessment to facilitate integration of COs and the remaining 20 marks is the average of 2 tests to be taken during the semester for the assessment of the cognitive domain LOs required for the attainment of the COs; (~<sup>1</sup>): For the courses having ONLY practical, the PA has two parts (i) practical part - 15 marks (60%) (ii) micro- project part - 10 marks (40%). (#):No theory Exam (~): For the courses having ONLY practical, the PA has two for~<sup>1</sup> (i) practical part - 30 marks (ii) micro-project part - 20 marks and for~<sup>2</sup> (i) practical part - 15 marks (ii) micro-project part - 10 marks.

#### Note

a) The **Technical Writing** course is introduced as practical work, in which English faculty members would facilitate the framing of correct language for writing different chapters and presentation (i.e.PPT. and others) of their project work from English point of view. Name of English teacher has to be included as a 'Language Editor' in the project and this activity will be the part of practical shown against Technical Writing course at VI semester. This work shall be carried out for each batch (size same as for practical)..

### I - Scheme Summary of Teaching Scheme/Week, Credits and Examination Scheme

#### Fashion and Clothing Technology

Semester	Teaching Scheme/Week			Credits (L+T+P)	Examination Scheme				Grand Total
	L	T	P		Theory		Practical		
					ESE	PA	ESE	PA	
I	15	2	16	33	210	90	200	200	700
II	17	-	18	35	385	165	225	225	1000
III	15	-	16	31	350	150	200	200	900
IV	15	-	20	35	280	120	250	250	900
V	15	-	24	39	330	120	300	300	1050
VI	13	-	18	31	280	120	225	225	850
<b>Total</b>	<b>90</b>	<b>2</b>	<b>112</b>	<b>204</b>	<b>1835</b>	<b>765</b>	<b>1400</b>	<b>1400</b>	<b>5400</b>

(^ ) and (^ ^): This includes total 6 credits for Industrial Training conducted during Summer Break (4 credits for between IV and V semester), and Winter Break (2 credits for between V and VI semester).

