NSQF Aligned Curriculum For

Diploma Programme In

FASHION DESIGNING AND GARMENT TECHNOLOGY

For the State of Uttar Pradesh

Effective from Session

2022-23

Preparedby:

Curriculum Development Centre
Institute of Research Development & Training
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CORRECTED AND APPROVED BY BOARD OF TECHNICAL EDUCATION U.P., LUCKNOW IN CDC MEETING HELD ON 11.08.2023

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PREFACE

An important issue generally debated amongst the planners and educators world over is how technical education can contribute to sustainable development of the societies struggling hard to come in the same bracket as that of the developed nations. The rapid industrialization and globalization has created an environment for free flow of information and technology through fast and efficient means. This has led to shrinking of the world, bringing people from different culture and environment together and giving rise to the concept of world turning into a global village.In India, a shift has taken place from the forgettable years of closed economy to knowledge based and open economy in the last few decades. In order to cope with the challenges of handling new technologies, materials and methods, we have to develop human resources having appropriate professional knowledge, skills and attitude. Technical education system is one of the significant components of the human resource development and has grown phenomenally during all these years.Now it is time to consolidate and infuse quality aspect through developing human resources, in the delivery system.Polytechnics play an important role in meeting the requirements of trained technical manpower for industries and field organizations. The initiatives being taken by the Technical Education, UP to revise the existing curricula of diploma programmes as per the needs of the industry and making them NSQF compliant, are laudable.

In order to meet the requirements of future technical manpower, we will have to revamp our existing technical education system and one of the most important requirements is to develop outcome-based curricula of diploma programmes.The curricula for diploma programmes have been revised by adopting time-tested and nationally acclaimed scientific method, laying emphasis on the identification of learning outcomes of diploma programme.

The real success of the diploma programme depends upon its effective implementation. However best the curriculum document is designed, if that is not implemented properly, the output will not be as expected. In addition to acquisition of appropriate physical resources, the availability of motivated, competent and qualified faculty is essential for effective implementation of the curricula.

It is expected of the polytechnics to carry out job market research on a continuous basis to identify the new skill requirements, reduce or remove outdated and redundant courses, develop innovative methods of course offering and thereby infuse the much-needed dynamism in the system

Director
Institute of Research Development &Training.
Kanpur

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6. Faculty/Subject Experts from U.P. Government polytechnics

Coordinator
Institute of Research Development & Training,
Kanpur, U.P.

1. SALIENT FEATURES OF DIPLOMA PROGRAMME IN FASHION DESIGNING AND GARMENT TECHNOLOGY

1)	Name of the Programme	:	Diploma Programme in Fashion Designing and Garment Technology
2)	Duration of the Programme	:	Three years (Six Semesters)
3)	Entry Qualification	:	Matriculation or equivalent NSQF Level as Prescribed by State Board of Technical Education, UP
4)	Intake	:	As prescribed by the Board)
5)	Pattern of the Programme	:	Semester Pattern
6)	NSQF Level	:	Level - 5
7)	Ratio between theory and Practice	:	50:50 (Approx.)

2-EMPLOYMENT OPPORTUNITIES FOR DIPLOMA HOLDERS IN FASHION DESIGH AND GARMENT TECHNOLOGY

The following are the major employment opportunities for diploma holders in Fashion Design and Garment Technology:

Three areas were identified in which a diploma holder in fashion designing can begin his/her carrier.

(A)Employment
(B)Entrepreneurship
(C)Teaching
(D) Free Lancing

The detailed job description under each of the above fields may be summarised as below:

(A)Employment:

1. Fashion Merchandizing.

2. Assistant Designers.

3. Sampling & Supervision.

4. Fashion Accessories Design

5. Fashion Design Institutions.

6. Fashion Co-ordinator.

7. Fashion Museums.

8. Research & Development.

(B)Entrepreneurship:

1. Boutiques

2. Fabricators

3. Fashion Ancillaries.

4. Designer Creations Exclusive.

5. Fashion Design job-production.

6. Large Scale Production

7. Fashion Specialisation
(C)Free Lancing

1. Magazine Designers.

2. Fashion Exhibitions.

3. Window Display.

4. Consultancy

5. Fashion Shows.

3. LEARNING OUTCOMES OF DIPLOMA PROGRAMME IN FASHION DESIGNING AND GARMENT TECHNOLOGY

Sr. No.	Learning Outcomes
After due completion of the course, a Diploma Programme In Fashion Design And Garment Technology will be able to:	
1.	Describe the process of communication
2.	Communicate effectively in different contexts
3.	Apply historic costume knowledge for fashion design construction.
4.	Identify, analyze and apply trends in fashion Industry.
5.	Draw complex and Geometric Object.
6.	Observe and analyze the work of art.
7.	Make drafts and Patterns of different Garment and design for children and ladies.
8.	Do pattern layouts along with estimation and casting of Garments.
9.	Interpreted working of different department in the industry.
10.	Identify and differentiate between different kinds of fibres.
11.	Dye fabrics and yarns
12.	Print on Fabrics with different designs
13.	Stitch different types of stitches.
14.	Coordinate with cognitive development and the development of motor skill.
15.	Create embroidery patterns
16.	Recognize different Indian state embroideries
17.	Describe the basic computer terminology and application.
18.	Illustration of Design.
19.	Design Garment made of leather
20.	Make draft and pattern of different equipment.
21.	Do pattern Layout.
22.	Determine overall style and beauty of a Garment.
23.	Explain Different Types of knitting.
24.	Describe about Knitting process and pattern creation.

25.	Comprehend the language correctly
26.	Demonstrate the working of sewing machines
27.	Explain different types of stitches used for making a garment
28.	Explain different types of Leather
29.	Design and validate Technological solution to defined problem and communicate clearly and effectively.
30.	Comprehend the importance of ecosystem and sustainable
31.	Demonstrate interdisciplinary nature of environmental issues
32.	Produce very accurate design through CAD.
33.	Draw 2D and 3D and Pattern design or object.
34.	Design Garment and Outfits for Men, women and kids for every occasion.
35.	Explain sewing techniques which involved in the process of construction.
36.	Articulate the role of outcomes based Grading
37.	Produce garment in a range of size by applying increase and decrease at points of a base size pattern.
38.	Design costume jewelry
39.	Understand the different ways in which the fashion industry operates
40.	Handle work pressures in a better manner
41.	Have knowledge about how to start own business .
42.	Improve their knowledge, attitudes, skill and wealth.
43.	Sketch different kind of Body and silhouette of a garment.
44.	Illustrate fashion ideas in a visual form.
45.	Develop understanding regarding the size and scale of operations and nature of field-work in which students are going to play their role after completing the courses of study
46.	Develop understanding of subject based knowledge given in the classroom in the context of its application at work places.

4.DERIVING CURRICULUM AREAS FROM LEARNING OUTCOMES OF THE PROGRAMME

The following curriculum areas/subjects have been derived from learning outcomes:

Sr. No.	Learning Outcomes	Curriculum Area/Subject
1.	Describe the process of communication	*Communication Skills-I *Communication Skill-II Student Centred Activities (SCA)
2.	Communicate effectively in different contexts	*Communication Skills-I *Communication Skill-II Student Centred Activities (SCA)
3.	Apply historic costume knowledge for fashion design construction.	Fashion Design Concept
4.	Identify, analyze and apply trends in fashion Industry.	Fashion Design Concept
5.	Draw complex and Geometric Object.	Basic Design and Sketching
6.	Observe and analyze the work of art.	Basic Design and Sketching
7.	Make drafts and Patterns of different Garment and design for children and ladies.	Drafting And Pattern Making-I
8.	Do pattern layouts along with estimation and casting of Garments.	Drafting And Pattern Making-I
9.	Interpreted working of different department in the industry.	Industrial Machines Tools & Equipments
10.	Identify and differentiate between different kinds of fibres.	Textile Science
11.	Dye fabrics and yarns	Textile Science
12.	Print on Fabrics with different designs	Textile Science
13.	Stitch different types of stitches.	Basic Stitching Techniques
14.	Coordinate with cognitive development and the development of motor skill.	Basic Stitching Techniques
15.	Create embroidery patterns	Embroidery
16.	Recognize different Indian state embroideries	Embroidery
17.	Describe the basic computer terminology and application.	Computer Principles and Application
18.	Illustration of Design.	Design Ideas
19.	Design Garment made of leather	Design Ideas

20.	Make draft and pattern of different equipment.	Drafting and Pattern Making-II
21.	Do pattern Layout.	Drafting and Pattern Making-II
22.	Determine overall style and beauty of a Garment.	Fabric Selection and Identification
23.	Explain Different Types of knitting.	Knitwear Technology
24.	Describe about Knitting process and pattern creation.	Knitwear Technology
25.	Comprehend the language correctly	Communication Skills I & II
26.	Demonstrate the working of sewing machines	Garment Fabrication
27.	Explain different types of stitches used for making a garment	Garment Fabrication
28.	Explain different types of Leather	Leather Science
29.	Design and validate Technological solution to defined problem and communicate clearly and effectively.	Cad For Costume-I
30.	Comprehend the importance of ecosystem and sustainable	Cad For Costume-I
31.	Demonstrate interdisciplinary nature of environmental issues	EnvironementalStudies
32.	Produce very accurate design through CAD.	Cad For Costume-II
33.	Draw 2D and 3D and Pattern design or object.	Cad For Costume-II
34.	Design Garment and Outfits for Men, women and kids for every occasion.	Dress Designing
35.	Explain sewing techniques which involved in the process of construction.	Leather Garment Construction
36.	Articulate the role of outcomes-based Grading	Grading
37.	Produce garment in a range of size by applying increase and decrease at points of a base size pattern.	Grading
38.	Design costume jewelry	Jewelleryand Fashion Accessories
39.	Understand the different ways in which the fashion industry operates	Apparel Industry & Production Management
40.	Handle work pressures in a better manner	Apparel Industry & Production Management

41.	Have knowledge about how to start own business .	Business Organisation & Entrepreneurship Development.
42.	Improve their knowledge, attitudes, skill and wealth.	Business Organisation & Entrepreneurship Development.
43.	Sketch different kind of Body and silhouette of a garment.	Fashion Illustration and Model Drawing
44.	Illustrate fashion ideas in a visual form.	Fashion Illustration and Model Drawing
45.	Develop understanding regarding the size and scale of operations and nature of field-work in which students are going to play their role after completing the courses of study	Project Work
46.	Develop understanding of subject based knowledge given in the classroom in the context of its application at work places.	Project Work

5-HORIZONTAL AND VERTICAL ORGANISATION OF THE SUBJECTS

Sr. No.	Subjects	Distribution in Periods per week in Various Semesters					
		I	II	III	IV	V	VI
1.	*Communication Skills-I	6	-	-	-	-	-
2.	Fashion Design Concept	6	-	-	-	-	-
3.	Basic Design and Sketching	12	-	-	-	-	-
4.	Drafting and Pattern Making-I	10	-	-	-	-	-
5.	Industrial Machine Tool and Equipments	8	-	-	-	-	-
6.	Textile Science	-	10	-	-	-	-
7.	Basic stitching techniques	-	14	-	-	-	-
8.	Embroidery	-	8	-	-	-	-
9.	Computer Principle and Application	-	8	-	-	-	-
10.	Design Ideas	-	-	12	-	-	-
11.	Drafting and Pattern Making-II	-	-	10	-	-	-
12.	Fabric Selection and Identification	-	-	10	-	-	-
13.	Knitwear Technology	-	-	10	-	-	-
14.	Industrial Training-I	-	-	-	-	-	-
15.	*Communication Skill-II	-	-	-	6	-	-
16.	Garment Fabrication	-	-	-	12	-	-
17.	Leather Science	-	-	-	8	-	-
18.	CAD For Costume-I	-	-	-	12	-	-
19.	*Environmental Studies	-	-	-	5	-	-
20.	Industrial Training-II (4 Weeks)	-	-	-	-	-	-
21.	CAD For Costume-II	-	-	-	-	12	-
22.	Dress Designing	-	-	-	-	8	-
23.	Leather Garment Construction	-	-	-	-	10	-
24.	Grading	-	-	-	-	4	-
25.	Jewelry & Fashion Accessories and Leather Goods	-	-	-	-	8	-
26.	Apparel Industry and Production Management	-	-	-	-	-	10
27.	Business Organization and Entrepreneurship Development	-	-	-	-	-	6
28.	Fashion Illustration and Model Drawing	-	-	-	-	-	14
29.	Project Work	-	-	-	-	-	12
30.	Student Centered Activities	3	2	4	3	4	4
	Total	**45**	**42**	**46**	**46**	**46**	**46**

STUDY AND EVALUATION SCHEME FOR DIPLOMAPROGRAMME INFASHION DESIGNING AND GARMENT TECHNOLOGY

FIRSTSEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
1.1	*Communication Skills-I	4	-	2	4	20	10	30	50	2 ½	20	3	70	100
1.2	Fashion Design Concept	6		-	4	20	-	20	50	2 ½	-	-	50	70
1.3	Basic Design and Sketching	2	-	10	6	-	50	50	-	-	100	4	100	150
1.4	Drafting and Pattern Making-I	2	-	8	5	-	30	30	-	-	60	4	60	90
1.5	Industrial Machine Tool and Equipments	4	-	4	5	20	30	50	50	2 ½	60	4	110	160
#Student Centred Activities (SCA)		-	-	3	1	-	30	30	-	-	-	-	-	30
Total		**18**	**-**	**27**	**25**	**60**	**150**	**210**	**150**		**240**	**15**	**390**	**600**

* Common with other diploma programmes

Student Centred Activities will comprise of co-curricular activities like extension lectures, self study,games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management andsafetyetc.

STUDY AND EVALUATION SCHEME FOR DIPLOMAPROGRAMME INFASHION DESIGNING AND GARMENT TECHNOLOGY

SECOND SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
2.1	Textile Science	4	-	6	2	20	20	40	50	2 ½	40	3	90	130
2.2	Basic stitching techniques	6	-	8	8	-	30	30	-	-	70	6	70	100
2.3	Embroidery	2	-	6	5	-	30	30	-	-	60	5	60	90
2.4	Computer Principle and Application	2	-	6	4	20	30	50	50	2 ½	60	3	110	160
#Student Centred Activities (SCA)		-	-	2	1	-	30	30	-	-	-	-	-	30
Total		**14**		**28**	**20**	**40**	**140**	**180**	**100**		**230**	**-**	**330**	**510**

* Common with other diploma programmes

#Student Centred Activities will comprise of co-curricular activities like extension lectures, self-study, games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management and safety etc.

- After the Examinationstudents of II Semester shall have a 4 week hands ontraininginany concernengagedin Garment (Textile, leather & Knitwear) manufacturing/NGO/Industry/related Fields. Thepurposeofthe visitis to enrich the students learning. Every student will submit the institution a report of his/her training engagement. The report will invariably contain the description of hisobservations about(1)Products/Work/Design(2)Tools and equipment's Used(3)Packing,Dispatchingof products. He will be evaluated by III Semester project examiner for 50 marks--40 for viva and 10 for the report presented.

STUDY AND EVALUATION SCHEME FOR DIPLOMAPROGRAMME INFASHION DESIGNING AND GARMENT TECHNOLOGY

THIRD SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
3.1	Design Ideas	4	-	8	6	20	30	50	50	2 ½	60	4	110	160
3.2	Drafting and Pattern Making-II	-	-	10	4	-	40	40	-	-	80	4	80	120
3.3	Fabric Selection and Identification	4	-	6	5	20	20	40	50	2 ½	50	4	100	140
3.4	Knitwear Technology	4	-	6	5	**20**	30	50	50	2 ½	60	4	110	160
3.5	Industrial Training-I	-	-	-	1	1	-	-	-	-	50	4	50	50
#Student Centred Activities (SCA)		-	-	4	1	-	30	30	-	-	-	-	-	30
Total		**12**	**-**	**34**	**22**	**60**	**150**	**200**	**150**		**300**	**-**	**450**	**660**

* Common with other diploma programmes

Student Centred Activities will comprise of co-curricular activities like extension lectures, self study,games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management andsafetyetc.

STUDY AND EVALUATION SCHEME FOR DIPLOMAPROGRAMME INFASHION DESIGNING AND GARMENT TECHNOLOGY

FOURTH SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
4.1	*Communication Skill-II	4	-	2	**4**	**20**	10	30	50	2 ½	20	3	70	100
4.2	Garment Fabrication	-	-	12	**5**	**-**	50	50	-	-	100	6	100	150
4.3	Leather Science	4	-	4	**5**	20	30	50	50	2 ½	60	6	110	160
4.4	CAD For Costume-I	4	-	8	**5**	**20**	30	50	50	2 ½	60	4	110	160
4.5	*Environmental Studies	3	-	2	**2**	**20**	10	30	50	2 ½	20	3	70	100
#Student Centred Activities (SCA)		-	-	3	**1**	-	30	30	-	-	-	-	-	30
Total		**15**	**-**	**31**	**22**	**80**	**160**	**240**	**200**	**-**	**260**	**-**	**460**	**700**

* Common with other diploma programme

Student Centred Activities will comprise of co-curricular activities like extension lectures, self study,games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management andsafetyetc.

- After the Examinationstudents of IV Semester shall have a 4 week hands ontraininginany concernengasedin Garment (Textile, leather &Knitwears) manufacturing/NGO/Industry/related Fields. Thepurposeofthe visitis to enrich the students learning. Every student will submit the institution a reportf histraining engagement. The report will invariably contain the description of hisobservations about(1)Products/Work/Design(2)Tools and equipment's Used(3)Packing,Dispatchingof products. He will be evaluated by III Semester project examiner for 50 marks--40 for viva and 10 for the report presented.

STUDY AND EVALUATION SCHEME FOR DIPLOMAPROGRAMME INFASHION DESIGNING AND GARMENT TECHNOLOGY

FIFTH SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
5.1	Industrial Training-II (4 Weeks)	-	-	-	1	-	-	-	-	-	50	-	50	50
5.2	CAD For Costume-II	4	-	8	6	20	30	50	50	2 ½	60	4	110	160
5.3	Dress Designing	-	-	8	4	-	25	25	-	-	50	4	50	75
5.4	Leather Garment Construction	4	-	6	6	20	30	50	50	2 ½	60	4	110	160
5.5	Grading	4	-	-	2	20	-	20	50	2 ½	-	-	50	70
5.6	Jewelry & Fashion Accessoriesand Leather Goods	1	-	7	4	-	30	30	-	-	60	4	60	90
#Student Centred Activities (SCA)		-	-	4	1	-	30	30	-	-	-	-	-	30
Total		**13**	**-**	**33**	**24**	**60**	**155**	**215**	**150**		**280**	**16**	**420**	**635**

* Common with other diploma programme

- The quality of education and learning is to be inhanced by frequent industrialvisit, guest lectures,seminarsand fashion exhibition in collaborationwithindistrialunitsbydisplayingstudnetsachievements. A live contact with industriesistobe maintainedforthepurpose.

#Student Centred Activities will comprise of co-curricular activities like extension lectures, self study,games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management andsafetyetc.

STUDY AND EVALUATION SCHEME FOR DIPLOMAPROGRAMME INFASHION DESIGNING AND GARMENT TECHNOLOGY

SIXTH SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
6.1	Apparel Industry and Production Management	7	-	3	7	20	20	40	50	2 ½	40	4	90	130
6.2	Business Organization and Entrepreneurship Development	6	-	-	5	20	-	20	50	2 ½	-	-	50	70
6.3	Fashion Illustration and Model Drawing	2	-	12	5	20	25	45	50	2 ½	50	3	100	145
6.4	Project Work	-	-	12	5	-	30	30	-	-	70	VIVA	70	100
#Student Centred Activities (SCA)	-	-	-	4	1	-	30	30	-	-	-	-	-	30
Total		**15**	**-**	**31**	**23**	**60**	**105**	**165**	**150**		**160**	**7**	**310**	**475**

Student Centred Activities will comprise of co-curricular activities like extension lectures, self study,games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management andsafetyetc.

STUDY AND EVALUATION SCHEME FOR LATERAL AND ITI PASSED STUDENTS
THREE YEAR (Six Semester) DIPLOMA COURSE IN FASHION DESIGNING & GARMENT TECHNOLOGY
(Effective from session 2023-24)

THIRD SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
3.1	Design Ideas	4	-	8	6	20	30	50	50	2 ½	60	4	110	160
3.2	Drafting and Pattern Making-II	-	-	10	4	-	40	40	-	-	80	4	80	120
3.3	Fabric Selection and Identification	4	-	6	5	20	20	40	50	2 ½	50	4	100	140
3.4	Knitwear Technology	4	-	6	5	20	30	50	50	2 ½	60	4	110	160
3.5	Industrial Training-I	-	-	-	1	1	-	-	-	-	50	4	50	50
#Student Centred Activities (SCA)		-	-	4	1	-	30	30	-	-	-	-	-	30
Total		**12**	**-**	**34**	**22**	**60**	**150**	**200**	**150**		**300**	**-**	**450**	**660**

* Common with other diploma programmes

Student Centred Activities will comprise of co-curricular activities like extension lectures, self study,games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management andsafetyetc.

FOURTH SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
4.1	*Communication Skill-II	4	-	2	**4**	**20**	10	30	50	2 ½	20	3	70	100
4.2	Garment Fabrication	-	-	12	**5**	**-**	50	50	-	-	100	6	100	150
4.3	Leather Science	4	-	4	**5**	20	30	50	50	2 ½	60	6	110	160
4.4	CAD For Costume-I	4	-	8	**5**	**20**	30	50	50	2 ½	60	4	110	160
4.5	*Environmental Studies	3	-	2	**2**	**20**	10	30	50	2 ½	20	3	70	100
#Student Centred Activities (SCA)		-	-	3	**1**	-	30	30	-	-	-	-	-	30
Total		15		**31**	22	80	**160**	**240**	**200**	**-**	**260**	**-**	**460**	**700**

* Common with other diploma programme

Student Centred Activities will comprise of co-curricular activities like extension lectures, self study,games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management andsafetyetc.

- After the Examinationstudents of IV Semester shall have a 4 week hands ontraininginany concernengasedin Garment (Textile, leather &Knitwears) manufacturing/NGO/Industry/related Fields. Thepurposeofthe visitis to enrich the students learning. Every student will submit the institution a reportf histraining engagement. The report will invariably contain the description of hisobservations about(1)Products/Work/Design(2)Tools and equipment's Used(3)Packing,Dispatchingof products. He will be evaluated by III Semester project examiner for 50 marks--40 for viva and 10 for the report presented.

A. COMPULSORY SUBJECT OF I & II Semester FASHION DESIGNING & GARMENT TECHNOLOGY TO BE TAUGHT IN III Sem TO ITI PASSED STUDENTS OF TRADES AS FOLLOWS :

I. DRESS MAKING AND FASHION TECHNOLOGY 1 YEARS 10 PASS(10+2 Scheme)

- **Qualifying subject of Ist Semester in III Semester**

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
1.1	*Communication Skills-I	4	-	2	4	20	10	30	50	2 ½	20	3	70	100

- **Qualifying subject of IInd Semester in IV Semester**

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
2.4	Computer Principle and Application	2	-	6	4	20	30	50	50	2 ½	60	3	110	160

FIFTH SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
5.1	Industrial Training-II (4 Weeks)	-	-	-	1	-	-	-	-	-	50	-	50	50
5.2	CAD For Costume-II	4	-	8	6	20	30	50	50	2 ½	60	4	110	160
5.3	Dress Designing	-	-	8	4	-	25	25	-	-	50	4	50	75
5.4	Leather Garment Construction	4	-	6	6	20	30	50	50	2 ½	60	4	110	160
5.5	Grading	4	-	-	2	20	-	20	50	2 ½	-	-	50	70
5.6	Jewelry & Fashion Accessoriesand Leather Goods	1	-	7	4	-	30	30	-	-	60	4	60	90
#Student Centred Activities (SCA)		-	-	4	1	-	30	30	-	-	-	-	-	30
Total		**13**	**-**	**33**	**24**	**60**	**155**	**215**	**150**		**280**	**16**	**420**	**635**

* Common with other diploma programme

- The quality of education and learning is to be inhanced by frequent industrialvisit, guest lectures,seminarsand fashion exhibition in collaborationwithindistrialunitsbydisplayingstudnetsachievements. A live contact with industriesistobe maintainedforthepurpose.

#Student Centred Activities will comprise of co-curricular activities like extension lectures, self study,games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management andsafetyetc.

SIXTH SEMESTER

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week			Credits	MARKS IN EVALUATION SCHEME								Total Marks of Internal & External
						INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT					
		L	T	P		Th	Pr	Tot	Th	Hrs	Pr	Hrs	Tot	
6.1	Apparel Industry and Production Management	7	-	3	7	20	20	40	50	2 ½	40	4	90	130
6.2	Business Organization and Entrepreneurship Development	6	-	-	5	20	-	20	50	2 ½	-	-	50	70
6.3	Fashion Illustration and Model Drawing	2	-	12	5	20	25	45	50	2 ½	50	3	100	145
6.4	Project Work	-	-	12	5	-	30	30	-	-	70	VIVA	70	100
#Student Centred Activities (SCA)		-	-	4	1	-	30	30	-	-	-	-	-	30
Total		**15**	**-**	**31**	**23**	**60**	**105**	**165**	**150**		**160**		**310**	**475**

Student Centred Activities will comprise of co-curricular activities like extension lectures, self-study,games, hobby clubs e.g. photography etc., seminars, declamation contests, educational field visits, N.C.C., NSS, Cultural Activities, disaster management andsafetyetc.

8. GUIDELINES FOR ASSESSMENT OF STUDENT CENTRED ACTIVITIES (SCA)

It was discussed and decided that the maximum marks for SCA should be 30 as it involves a lot of subjectivity in the evaluation. The marks may be distributed as follows:

i. 10 Marks for general behavior and discipline
(by HODs in consultation with all the teachers of the department)

ii. 5 Marks for attendance as per following:
(by HODs in consultation with all the teachers of the department)

a)	75 - 80%	2 Marks
b)	80 - 85%	4 Marks
c)	Above 85%	5 Marks

iii. 15 Marks maximum for Sports/NCC/Cultural/Co-curricular/ NSS activities as per following:
(By In-charge Sports/NCC/Cultural/Co-curricular/NSS)

a)	15	-	State/National Level participation
b)	10	-	Participation in two of above activities
c)	5	-	Inter-Polytechnic level participation

Note: There should be no marks for attendance in the internal sessional of different subjects.

Detailed Content

1.1 COMMUNICATION SKILLS – I

L	T	P
4	-	2

RATIONALE

Knowledge of English Language plays an important role in career development. This subject aims at introducing basic concepts of communication besides laying emphasis on developing listening, speaking, reading and writing skills as parts of Communication Skill.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

.

- Understand the importance of effective communication
- Describe the process of communication
- Communicate effectively in different contexts
- Identify parts of speech
- Write correct sentences using appropriate vocabulary
- Reproduce and match words and sentences in a paragraph
- Write various types of paragraphs, notices for different purposes and composition on picture with appropriate format
- Read unseen texts with comprehension

.

DETAILED CONTENTS

1 Basics of Communication (13 periods)

- 1.1 Definition and process of communication
- 1.2 Types of communication - formal and informal, oral and written, verbal and non-verbal
- 1.3 Communications barriers and how to overcome them
- 1.4 Barriers to Communication, Tools of Communication

2 Application of Grammar (18 periods)

- 2.1 Parts of Speech (Noun, verb, adjective, adverb) and modals
- 2.2 Sentences and its types
- 2.3 Tenses
- 2.4 Active and Passive Voice
- 2.5 Punctuation
- 2.6 Direct and Indirect Speech

3 Reading Skill (10 periods)

Unseen passage for comprehension (one word substitution, prefixes, suffixes, antonyms, synonyms etc. based upon the passage to be covered under this topic)

4 Writing Skill (15 periods)

4.1 Picture composition
4.2 Writing paragraph
4.3 Notice writing

LIST OF PRACTICALS

Note: Teaching Learning Process should be focused on the use of the language in writing reports and making presentations.
Topics such as Effective listening, effective note taking, group discussions and regular presentations by the students need to be taught in a project oriented manner where the learning happens as a byproduct.

Listening and Speaking Exercises

1. Self and peer introduction
2. Newspaper reading
3. Just a minute session-Extempore
4. Greeting and starting a conversation
5. Leave taking
6. Thanking
7. Wishing well
8. Talking about likes and dislikes
9. Group Discussion
10. Listening Exercises.

INSTRUCTIONAL STRATEGY

Student should be encouraged to participate in role play and other student centred activities in class room and actively participate in listening exercises

MEANS OF ASSESSMENT

- Assignments and quiz/class tests, mid-semester and end-semester written tests
- Actualpractical work, exercisesand viva-voce
- Presentation and viva-voce

RECOMMENDED BOOKS

1. Communicating Effectively in English, Book-I by Revathi Srinivas; Abhishek Publications, Chandigarh.
2. Communication Techniques and Skills by R. K. Chadha; DhanpatRai Publications, New Delhi.
3. High School English Grammar and Composition by Wren & Martin; S. Chand & Company Ltd., Delhi.

4. Excellent General English-R.B.Varshnay, R.K. Bansal, Mittal Book Depot, Malhotra
5. The Functional aspects of Communication Skills – Dr. P. Prsad, S.K. Katria & Sons, New Delhi
6. Q. Skills for success – Level & Margaret Books, Oxford University Press.
7. e-books/e-tools/relevant software to be used as recommended by AICTE/UBTE/NITTTR.

Websites for Reference:

1. http://www.mindtools.com/ page 8.html – 99k
2. http://www.letstalk.com.in
3. http://www.englishlearning.com
4. http://learnenglish.britishcouncil.org/en/
5. http://swayam.gov.in

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	13	24
2	18	32
3	10	16
4	15	28
Total	**56**	**100**

1.2 FASHION DESIGN CONCEPT

L	T	P
6	-	-

RATIONALE

Importance of the paper lies in thefactthatit enablesthe student to develop a proper concept offashionand its trends.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

1- Use Industry Technology.
2-Apply historic costume knowledge for fashion design construction.
3-Identify, analyze and apply trends in fashion Industry.
4-Develop a library of Fashion croquis.

DETAILED CONTENTS

1.**INTRODUCTION:** **(12periods)**

Fashion, Fashion classification & types. Fashion Design & Fashion technology. Why fashion? How to keep in touch with latest fashion?Selecting Fashion for own self.Fashion Industry& its Scope.

2.**FASHION TERMINOLOGY:** **(12 periods)**

Aquatintingwith Fashion terminology.Fashion industry language guide. Dictionary of Fashion terms.

3.**DISTINGUISHED FASHION DESIGNERS:** **(16 periods)**

Introduction to Fashion designers of National & International fame & their views. Future fore casting of Fashion trends - Analytical approach with respect todesign & involvement of technology. Fashion designers& Technologist of Tomorrow. Know the famous labels &International producers of today.

4.**FASHION ILLUSTRATION:** **(14 periods)**

Definition, Importance & Role of Fashion illustration in today'scompetitive fashion world.Methods&their application.

5.**HISTORY OF FASHION:** **(16 periods)**

A. BRIEF HISTORY OF INDIAN FASHION:

1. Garments and accessories worn during the Ancient Indian Period
2. Garments and accessories worn during the Medieval Indian Period
3. Garments and accessories worn during theModern Indian Period.

4. Garments worn in the Different Indian State-Kashmir, Punjab, Rajasthan, Bengal, Uttar Pradesh, Maharashtra, Eastern States, South India

B. Western Fashions, Egyptian, Greek, Roman.

C. Twentieth and Twenty First Century Fashion Trends.

6.**WAXING & WANING OF FASHIONS: (14 periods)**
Causes. Fashion occasions in social life, formal gatherings, Fashion cycle.

INSTRUCTIONAL STRATEGY
Teacher should encourage student to adopt their artistic abilities to support their future designcareers.

MEANS OF ASSESSMENT
-Assignments and quiz/class tests.
-Mid term and end term written test.
-Presentation

RECOMMENDED BOOKS
-Element of fashion and Apparel Designby Sumathi G J: New Age international limited, Publications.
-Fashion Design and Technology by Gayatri Verma.
-Comdex fashion Design by Vikas Gupta, Navneet Kaur:Wiley India Pvt.Limited.

Websites for Reference:
-https://www.tandfonline.com
-https://fashioninsiders.co
-https://en.m.wikipedia.org
-https://www.instyle.com

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	12	15
2	12	15
3	16	20
4	14	15
5	16	20
6	14	15
Total	**84**	**100**

1.3 BASIC DESIGN & SKETCHING

L	T	P
2	-	10

RATIONALE

A student of fashion designing must have a well-developed aesthetic sense torecognizebeautyinobjectsandacapabilityto make best use of the experience indesigning anddeveloping fashion objects. The paper aims to develop such capability in the student by essential knowledgeand practice.

Note:

The lecturer/demonstration will go along in the drawing room.Fourperiodsintutorial aretobeutilizedin practiceofthe problems relevant to topics inthepaper plus problems depending upon teacher fancy. A halfimperial sizefileis to be maintainedforsketching,colouring,designs and drawings. At least 25 exercises. Student should be given demonstration on computer also in developingdesigns andtakingouttheir prints.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

1- Draw complex and Geometric Object.
2- Observe and analyze the work of art.
3- Convey ideas, Demonstrate Functionality.
4- Draw still life composition, Prismatic object, human Hand and Foot,animal.

.

DETAILED CONTENTS

1.**INTRODUCTION:** **(6 periods)**

(a)Medium of Expression: Pencils. Inks. Crayons. Types of Colours.

(b)Tools & Materials: T-Square, Set Squares, Drawing Board. Compass. Liner& Equipment's for creating Textures.

2.**ELEMENTS & PRINCIPLES OF BASIC DESIGN:** **(6 periods)**

(a)Dots. Lines-thick,thin,Straight,Curve, Wavy,Vertical, Horizontal & Diagonal Lines.Shapes-Geometrical:Circle, Square, Triangle,Rectangle etc. & Natural shapes- Birds, Trees,Plants, Flowers,Leaves,Foliageetc.Shapesmodifiedtodifferent design through Lines, form, Colour & Texture.

(b)Tone.Colours - Primary, Secondary,TertiaryColours. Warm & Cool Colours. Opaque &Transparent Colours. Tints &Shades.Colourmixing.Colourscheme&ColourCombination. Colour Theory.

(c)Proportion, Harmony, Relationship, Contrast,Balance, Variety, Unity & Rhythm in design.

3.**INTRODUCTION TO NEGATIVE & POSSITIVE SPACE:** **(4 periods)**

Spacevalue,GeometricaldesignsshowingNegative&Positive space.

4.**PRACTICE OF FOLLOWING ARTS FORMS IN COLOUR: (4 periods)**

(a)Traditional & Modern

(b)Folk &Geometrical

5.**CONCEPT OF ILLUSION IN ART EXPRESSION: (4 periods)**

Optical Illusion,Three-Dimensional effect

6.**SKETCHES: (4periods)**

FollowingtobeSketchedindifferentmedia, i.e.- Pencil/Ink/crayons/Water Colour.

(a)Flowers & Twigs
(b)Trees foliage
(c)Vegetables & Fruits
(d)Human & Animal Figures
(e)Birds
(f)Landscape
(g)Motifs
(h)Designs for Embroidery

INSTRUCTIONAL STRATEGY
-Since this subject is practice oriented, the teacher should demonstrate the capabilities of Design& Sketching.

MEANS OF ASSESSMENT
-Assignments and quiz/class tests.
-Actual Practical work.
-Model Making.
-Presentation

RECOMMENDED BOOKS
-Observational sketching bymarikoHigaki. Rockport Publication.
-Drawing Made easy by Subodh Narvekar and AvdhutNarvekar Navneet Publication.
-Basic Drawing by Christopher Hart Watson-Guptill Publication.

Websites for Reference:
-https://www.hongkiat.com
- https://www.Designsketchbook.com
-https://www.udemy.com

1.4 DRAFTING AND PATTERN MAKING-I

L	T	P
2	-	8

RATIONALE

Thispaperwillmake studentsfamiliarwithhuman anatomy, measurementmethods, measurementcharts, difference betweenpaper pattern and drafting, figure types andfiguredefects. The student will also be equipped with the knowledge of operation of equipment used in drafting.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

1-Understood of the Drafting terms.
2-Make drafts and Patterns of different Garment and design for children and ladies.
3-Do pattern layouts along with estimation and casting of Garments.
4-Cover figure objects through illusion of drafting and design.

DETAILED CONTENTS

1.Scopeandimportanceofdraftingandpatternmaking,terminology,draftingequipmentandits use,typesoflayouts.**(04 periods)**

2.**HUMAN ANATOMY:**
Studyofhuman body with referencetoSkelton,muscles,joints,organs,growth of body, various considerationsinmaking of cloth.**(05 periods)**

3.**MEASUREMENT METHODS:**
Various methods of taking measurementson thebody. Taking measurements of over garments. Sequence of recording measurements.**(04 periods)**

4.**MEASUREMENT OF CHARTS/ANTHROPOMETRY:**
Studyofmeasurement charts, study ofhumanproportions,eight head theory, its principle and application. **(04 periods)**

5. Patterns, Types of patterns, Difference between drafting and patterns**(04 periods)**

6.Different figure types and figure defects. **(04 periods)**

7.Types of layouts, Principles of layout, Importance of layoutDrafting and Pattern Layout Practical's**(03 periods)**

LIST OF PRACTICALS

1. Exercise on observation of different types of bodies.

2.Practicein drafting, layout and estimationofdifferent types of children wears. Body Panty, Jhabla,Sunsuit, Romper Frock, Umbrella Frock, Combination Suit.

3. Practice on:
a-Taking measurements directly from body.
b-Taking measurements from ready garments.

4. A.Child basic bodice Block and Sleeve Block.
   B. Types of sleeves… Plain, Puff, Fancy Puff, Flared,Leg O, Mutton, Cap, Magyar,Dolman, Butterfly and Kimono.
   C. Types of Collars- Peter pan (Single and 2 Piece), Cape,Chines Band TennisCollar, Sailors, Puritan.
   D.Types of Skirts, Straight, Gathered, Flared, Paneled,Yoked, Pleated, Circular.

5. Practiceondrafting,layout andestimationforChildrenWears – Baby Panty, Slip, Sun suit, Baby Frock, Combination Suit,Party Frock, Night Suit, Skirt Top.

INSTRUCTIONAL STRATEGY

Since this subject is practice oriented, the teacher should demonstrate the capabilities of Drafting to students while doing practical exercises.

MEANS OF ASSESSMENT

- Model/ Pattern making
- Actual practical work
- Viva-Voce/ Presentation

RECOMMENDED BOOKS

1. Zarapkar System of Cutting by Shri K. R. Zarapkar, Publication: Navneet Publications.
2. Pattern Grading for Women's Clothing by GekeyCooklins, Publication: Blackwell Science
3. Rapidex Home Training Course by Asha Rani Vohra, Publication: Pustak Mahal
4. Encyclopedia of Dress Making by Marshall Cavendish Marshall Cavendish Books Ltd. 58 Old Cambton Street .
5. Basic Fashion by Wardrobe Pamelalee Singer Co,.(U.K.) Ltd.
6. Dress Making Ronkelty Terry Evon Himalayan Publishing Group LTd. Landon

Websites for Reference:

1. www.textileschool.com
2. www.clothingindustry.blogspot.com

1.5 INDUSTRIAL MACHINES TOOLS & EQUIPMENTS

L	T	P
4	-	4

RATIONALE

The objective of this paper is to acquaint thestudents withdifferent types of machinestheir attachments, adjustments, maintenance procedure. The students also become familiar with tools and equipment's used in dress designing industry.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:
1-Undarstood the Industrial machine and tool work.
2-Undarstood the different ways in which the industry operates.
3-Interpreate working of different department in the industry.

DETAILED CONTENTS

Sewing Machines:

1.General purpose sewing machine Constructionand working of sewing machines-handoperated, treadleoperated and electric motor operated.Functionofeach part of sewing machine, sewing machine feed mechanism.**(10 Periods)**

2. Attachment: (Elementary idea of operation) Pressure foot, Folders, Seam Guide, Special Attachments.**(10 Periods)**

3. Principles of operation of special purpose/basic machines: Lockstitch, chainstitch, overlock, blind stich,button hole, andbutton stitching machines, long stitchingmachine,zigzagmachinedoubleneedlemachine,doubleneedlearn stitchingmachine, tacking machine, blindstitchmachine, presses, fusing presses, cutting and laying up machines. **(10 Periods)**

4. Machine adjustments and effect of these adjustments. **(10 Periods)**

5. Maintenance of Machines: Necessityforpreventive, periodicand correctingmaintenance.Cleaning and lubrication ofordinarysewingmachinesandspecialpurposebasicmachines.Typeoflubricating oil used.Maintenance (i.e., cleaninglubricationand adjustment) schedules. Commondefects which occur in sewing machines,basicand special purpose machines. Trouble shooting and rectification of minor defects.**(16 Periods)**

Tools and Equipment's:

1.Cutting equipment: Use and care of scissors, shears, pinking scissors.

2. Sewing Tools: Use and care of needles, pins, thimble, tape measure, ruler, squareadjustable gauge, skirt marker, French curve.

3. Marking Tool:Use of tracing paper, tracing wheel, tailors chalk.

4. Miscellaneous Tools: Bobbin, button hole scissors, eyelits, electric iron,steamiron.

LIST OF PRACTICALS

1. Operation,Cleaning, Lubricating and adjustment ofsewingmachine.

2. Operation, cleaning, lubrication and adjustments of overlockmachine.

3. Operation, cleaning, lubrication and adjustments of buttonhole stitching machine.

4. Operation, cleaning, lubrication and adjustments of button stitch machine.

5. Operation, cleaning, lubrication and adjustments of double needle machine.

6. Operation, cleaning, lubrication and adjustments of zig zag machine.

7. Operation cleaning lubrication and adjustments of arm stitching machine.

INSTRUCTIONAL STRATEGY
The Subject require both theory and practical emphasis simultaneously so that student can understand practical significance of practical areas.

MEANS OF ASSESSMENT
-Assignment / quiz / class test.
-Mid term and End term written test.
-viva-voce.

RECOMMENDED BOOKS
-machine Tool design and numerical control By N K Mehta,McGraw Hill Publication.
-Technology of machine Tool By Steve F Krar, McGraw Hill Publication.

Websites for Reference:
-https://industrialmachinetool.com
-https:// www.britannica.com
-https://en.mwikipedia.org.

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	10	15
2	10	15
3	10	15

4	10	20
5	16	35
Total	**56**	**100**

2.1 TEXTILE SCIENCE

(COMMON WITH ONE YEAR P .G. DIPLOMA IN FASHION TECHNOLOGY)

L	T	P
4	-	6

Rationale:
A diploma holder in Fashion Designing, has to interact with skilled labor on one hand and he/she has to assist his/her seniors in the procurement of raw materials and various types of fabrics on the other. Therefore, he/she should be equipped with the technique of selecting textile and synthetic fibers by visual inspection and laboratory tests, processing of fabrics, dyeing of fabrics etc.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

1- Identify and differentiate between different kinds of fibres.
2- Dye fabrics and yarns
3- Print on Fabrics with different designs
4- Create exclusive patterns with Tie & Dye & Batik Techniques

DETAILED CONTENTS

1. Textile Fibres (10 Periods)

1.1 Classification of textile fibres and their general & essential properties and their use.
Natural fibres: - Animal, Vegetable, Mineral, Bast Fibres
Man-made Fibres: -
(a) Regenerated fibers. - Rayon (Viscose, Acetate, Cupra ammonium)
(b) Synthetic fibers- Nylon, Polyester (Terelene /Dacron), Acrylic (Orlon)

1.2 **Identification of textile fibres**
1.2.1 Visual inspection 1.2.2 Burning test
1.2.3 Chemical test (elementary) 1.2.4 Elementary knowledge of blends

2. Elementary Knowledge of Knitting: (06 Periods)

2.1 Knitting Terminology- Terms related to hand and machine knitting and knitting software

2.2 Hand Knitting - Basic stitches, Finishing.
2.3 Machine knitting – circular Knitting and Flat knitting

3.Woven Fabric Construction (10 Periods)

3.1 Classification of woven fabrics
3.2 Elementary knowledge ofdifferentprocesses involved in the conversion of yarn into fabric.
3.3 Weaves.
(ii) Types of weaves Simple weaves -Plain, Twill, Satin and Sateen

4. Study of different commercial fabrics on the basis of: (10 Periods)

4.1 Methods of manufacturing: weaving, (woven) (simple, compound, looped, tufted, gauze, leno etc.) and knitting (knitted) (weft knitted, warp knitted etc.)

4.2 Structure (weave): plain (Long cloth, Poplin, Rubbia, Casement, Cambric, Voile, Mulmul,Buckram etc.), Twill (Drill, Denim, Jean, Tweed, Serge, Gaberdine etc.).

4.3 Quality and Construction: (Coarse, Medium, Fine, Superfine, Based on EPI, PPI, Count & ply of wrap and weft yarn)

4.4 Weight, Light, Medium, Heavy.

4.5 Level of ornamentation: Dyed, Stripe, Check, Figured-Tapestry, Brocade, Damask and Printed.
4.6 Use: Shirting, Suiting, Lining, Dress Material, Bed cover, Table cover, Curtain, Furnishing, Upholstery etc.)

5. Dyeing (12 Periods)

5.1 Classification of dyes

a:Natural Dyes
- Vegetable - Animal - Mineral

b: Synthetic dyes
- Acetate - Acid - Basic
- Pigments - Different types of dyeing methods

c: Ecofriendly dyes

5.2 Batik

5.3 Tie and dye

5.4 Factors which effect fading of dyed fabrics

(i)Light (ii) Humidity (iii) Perspiration
(iv) Gas fumes (v) Laundering (vi) Heat

6. Surface Designs of fabrics (08 Periods)

6.1 Printing

a- Vegetable printing b- Block printing c- Screen printing

LIST OF PRACTICALS

Practical's based on theory

1. Identification of fibres. (Natural & Manmade fibres)
2. Study of different types of commercial fabrics and their sample collection.
3. Study of fabric structure to identify basic weaves.
4. Study of fabric count (Weight of fabric) and comfort properties (Drape, Bending, crease recovery, air permeability, abrasion fabric thickness, elongation)
5. Exercises in proper selection of fabrics for any given garment or style.
6. To prepare an article in
   -Batik -Tie and dye -Block printing -Screen printing
7. Stencil or spray along with Transfer printing.
8. To visit cloth manufacturing factories and prepare a report.

INSTRUCTIONAL STRATEGY

The subject requires both theory and practical emphasis simultaneously, so that the student can understand the practical significance of the various areas. Visits to Fashion industries must be carried out, so as to make the students can understand where and how the various instruments are used in the industry.

MEANS OF ASSESSMENT

- Assignments and quiz/class tests
- Mid-term and end-term written tests
- Model making
- Actual practical work
- Viva-Voce

RECOMMENDED BOOKS

1. VastravigyanAvamParidhan by Dr. Pramilla Verma, Publication: Rajhans Press Publications
2. Textile Fibre& Fabric by M. David Poter, Publication Haryana Sahitya Academy.
3. Fundamentals of Textiles and their Care (Fourth Edition) Vol 1 & 2 by SusheelaDantyagi, Publication: Orient Longman.

Websites for Reference:

1. www.en.wikipedia.org
2. www.britannica.com

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	10	18
2	06	10
3	10	18
4	10	18
5	12	20
6	08	16
TOTAL	**56**	**100**

2.2 BASIC STITCHING TECHNIQUES

L	T	P
6	-	8

RATIONALE

Theobjectiveofthispaperistomakestudents familiarwithselectionandmatchingthethreadwith fabrics,basicstitches,seams,decorative,stitches,different typesof plackets,design and putting in differenttypesof pockets,waist bands,sleeves,collars and fasteners etc.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:
1- Stitch different types of stitches.
2- Coordinate with cognitive development and the development of motor skill.
3-Encourage creative thinking and enhance Knowledge.

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DETAILED CONTENTS

1.**SELECTION & MATCHING OF THREAD:** **(10 Periods)**

Selectionandmatchingthe threadandneedlewiththefabric.Selection of temperature and type of presses tobe used for various fabrics.

2.**BASIC STITCHES:** **(10 Periods)**

Basicstitcheswith hand andsewingmachine, casting, marking,running, button hole, hemming, individualhemming, backstitch, half back stitch, blind stitch, crossstitch, padding, types of tacking, theiruse, construction and faults. Temporary stitches, Permanent Stitching and their use.

3.**SEAMS:** **(08 Periods)**

Seamswithhandandmachine;plain, French, flat,lapped, crossed, curved, angled, pinking, over base, binding, etc., finishing of seams.

4. **DECORATIVE STITCHES:** **(08 Periods)**

Decorative stitches, their utility, selection of decorativethreads.

5.**PLACKETS:** **(08 Periods)**

Types of plackets.

6.**WAIST BANDS:** **(08 Periods)**

Waistbands - Pleating measuring andmakingfrommodern selected garments.

7.**POCKETS:** **(08 Periods)**

Pockets making up and putting in

8.**SLEEVES:** **(08 Periods)**

Sleeves - Making up and putting in; different types.

9.**COLLARS:** **(08 Periods)**

Collars - Basic types and fixing of collars.

10.**FASTENERS:** **(08 Periods)**

Putting in different types of fasteners.

LIST OF PRACTICALS

1. Demonstration on use of sewing machine.

2. Practice of making basic stitches by hand.

3. Practice of making basic stitches by sewing machine.

4. Making of different types of seam.

5. Practice of making decorative stitches.

6. Practiceon fabrication of dresses studied in draftingand pattern making-I subject.

INSTRUCTIONAL STRATEGY
The teacher should demonstrate the capabilities of student while doing practical work.

MEANS OF ASSESSMENT
-Model Making
-Actual Practical work
-viva-voce

RECOMMENDED BOOKS
-Sewing Basics bySandra Bardwell Harry N. Abrams, Publication.

Websites for Reference:
- www.moodfabrics.com

2.3EMBROIDERY

(COMMON WITH ONE YEAR P.G. DIPLOMA IN FASHION TECHNOLOGY)

L	T	P
2	-	6

Rationale:
Embroidery is a process of adding design and decoration to the fabric surface. It holds significant importance in fashion wears for children and women, so it cannot be ignored in fashion designing curriculum.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

1- Create embroidery patterns
2- Recognize different Indian state embroideries
3- Use embroidery stitches and patterns to enhance garment designs
4- Trace and transfer embroidery patters on fabric

Note: Lecturer/Demonstration will go along followed by practice during practical periods. At least 20 exercises (Patterns) of different kinds relevant topics in the paper. Student should be given demonstration of these exercises on computer also. There will not be any theory examination.

DETAILED CONTENTS

1. Introduction of the appropriate tools, machines and materials for hand and machine embroidery work. (04 Periods)
2. Knowledge of tracing design on various types of embroidery materials.(04 Periods)

EMBROIDERY:
Prepare a file of the following embroidery samples with their characteristics, special features anduses.

3.HAND EMBROIDERY: (04 Periods)
Basic stitches (Including variations) -stem stitch, Back stitch, Chain stitch, Buttonhole stitch, Satin, stitch, Long & Short stitch, Herringbone stitch, French knots, Couching, Darning-stitch, Feather-stitch, Cross- stitch.

4.FANCY EMBROIDERY WORK: (08 Periods)

(a) Applique work (Blind, Net, lace, figure appliques)
(b) Patch work (c) Bead work (d) Ribbon work(e) Punch work
(f) Laid work (g) Zari work (h) Shadow work (i) Quilting
(j) Smocking

5. TRADITIONAL INDIAN EMBROIDERY: (08 Periods)
(a) Kashmiri (b) Phulkari
(c) Chicken Kari (d) Sindhi mirror embroidery

(e) Kantha(f) Miscellaneous Embroidery

INSTRUCTIONAL STRATEGY

Since this subject is practice oriented, the teacher should demonstrate practical significance of the various areas. Visits to Fashion industries must be carried out, so as to make the students can understand where and how the various instruments are used in the industry.

MEANS OF ASSESSMENT

- Model/ Patternmaking
- Actual practical work
- Viva-Voce

RECOMMENDED BOOKS

1. Good House Keeping- Step-by-step Encyclopedia of needle craft by Judy Brittain Publication Darling Kindersley Ltd.
2. Dictionary of Stitches by Sheila Brull, Publication: Canvendish House
3. Embroidery in Fashion by Annwen Nicholas and Daphane Teague, Publication Pitam Publishing

Websites for Reference:

1. www.embroiderydesignsforfree.com
2. www.sewguide.com/hand-embroidery-stitches

2.4 COMPUTER PRINCIPLES AND APPLICATION

L	T	P
2	-	6

RATIONALE

The diploma holders in fashion Design and Garment Technology needs to understand computer fundamentals and office automation application. This subject will make student proficient in basic computer.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:
1-Understand the basic computer terminology and application.
2-Use word processing software for creating, editing, formatting of word documents.
3-Use spreadsheet software for creating, managing, preparing the charts, table in spreadsheet document.
4-Use Presentation software for preparing the Presentation that contains text, image, animation andmultimedia elements.
5-Use scan and edit image with help of image editing tools and software.

DETAILED CONTENTS

COMPUTER PRACTICE

1. Computer principles and application: Basic Fundamentals of computer hardware, Basic trend in PCTechnology, Operating system (OS)- Definition, Types of OS, DOS, Window andLinux; Internet and E-Mail.2. Creating documents using MS Word.

2. Word Processing (MS Office/Open Office)

   a) File Management
   - Opening, creating and saving a document, locating files, copying contents in some different file(s), protectingfiles, giving password protection for a file

   b) Page set up
   - Setting margins, tab setting, ruler, indenting

   c) Editing a document
   - Entering text, cut, copy, paste using tool- bars

   d) Formatting a document
   - Using different fonts, changing font size and Colour, changing the appearance through bold/italic/underlined, highlighting a text, changing case, using subscript and superscript, using different underline methods
   - Aligning of text in a document, justification of document, inserting bullets and numbering
   - Formatting paragraph,inserting page breaks and column breaks, line spacing
   - Use of headers, footers: Inserting footnote, end note, use of comments, autotext
   - Inserting date, time, special symbols, importing graphic images, drawing tools

e)Tables and Borders

- Creating a table, formatting cells, use of different border styles, shading in tables, merging of cells, partition of cells, inserting and deleting a row in a table
- Print preview, zoom, page set up, printing options
- Using find, replace options

f) Using Tools like

- Spell checker, help, use of macros, mail merge, thesaurus word content and statistics, printing envelops and lables
- Using shapes and drawing toolbar,
- Working with more than one window .

3.Spreadsheet Processing (MS Office/Open Office/Libre Office)

a) Starting excel, open worksheet, enter, edit, data, formulae to calculate values, format data,save worksheet, switching between different spreadsheet s

b) Menu commands:

Create, format charts, organise, manage data, solving problem by analyzing data. Programming with Excel Work Sheet, getting information while working

c) Work books:

Managing workbooks (create, open, close, save), working in work books, selecting the cells, choosing commands, data entry techniques, formula creation and links, controlling calculations

Editing a worksheet, copying, moving cells, pasting, inserting, deletion cells, rows, columns, find and replace text, numbers of cells, formatting worksheet, conditional formatting

d) Creating a chart:

Working with chart types, changing data in chart, formatting a chart, use chart to analyze data

Using a list to organize data, sorting and filtering data in list

e) Retrieve data with query:

Create a pivot table, customizing a pivot table. Statistical analysis of data

f) Exchange data with other application:

Embedding objects, linking to other applications, import, export document.

4.PowerPoint Presentation (MS Office/Open Office/Libre office)

a) Introduction to PowerPoint
   - How to start PowerPoint
   - Working environment: concept of toolbars, slide layout & templates.
   - Opening a new/existing presentation
   - Different views for viewing slides in a presentation: normal, slidesorter.

b) Addition, deletion and saving of slides

c) Insertion of multimedia elements
   - Adding text boxes

-Adding/importing pictures
-Adding movies and sound
-Adding tables and charts etc.
-Adding organizational chart
-Editing objects
- Working with Clip Art

d) Formatting slides
- Using slide master
- Text formatting
- Changing slide layout
- Changing slide colour scheme
- Changing background
- Applying design template

5. Practice of scanning photographs /image, fashion sketching and designing using GIMP or any other software, editing images using GIMP.

6. Practice of using Internet Explorer & Electronic-mail.

INSTRUCTIONAL STRATEGY

Since this subject is practice oriented, the teacher should demonstrate the capabilities of computers to students while doing practical exercises. The students should be made familiar with computer parts, peripherals, etc. and proficient in making use of Image Editing software functionalities. The student should be made capable of working on computers independently

MEANS OF ASSESSMENT

- Assignments and quiz/class tests, mid-term and end-term written tests
- Actual laboratory and practical work, exercises and viva-voce
- Software installation, operation, development and viva-voce

RECOMMENDED BOOKS

1.Fundamentals of Computer by E Balagurusamy,Tata McGraw Hill Education Pvt. Ltd, New Delhi
2.Fundamentals of Computer by V Rajaraman; Prentice Hall of India Pvt. Ltd., New Delhi
3.The Definitive Guide to the Free Graphics Editor by Dmitry Kirsanov, Publication No Starch Press, 2009 - Art
4.Beginning Photo Retouching & Restoration Using GIMP by Phillip Whitt, Publication: Apress/2014
5.Rapidex Computer Course by Pustak Mahal Editorial Board

Websites for Reference:

1. www.inkscape.org
2. https://en.wikipedia.org/wiki/GIMP

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	2	15

2	6	15
3	6	20
4	6	15
5	6	20
6	2	15
Total	**28**	**100**

3.1 DESIGN IDEAS

L	T	P
4	-	8

RATIONALE

The objective of this paper is to familiarize the students with the factors influencing fashion, garment constructionaccording tothefiguresize, fashionaccessories like neck lines, trimmings, collars, sleeves etc.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

1- Illustration of Design.
2- Design Garment made of leather.
3- Understood part of Garment and Their Types.
4- Design Garment for women, Men and children.

.

DETAILED CONTENTS

1.**FACTORS INFLUENCING DESIGN OF DRESS: (04 Periods)**

Factorsinfluencingfashion;age, gender, physicalcharacteristics, geographicalfactors, Environmentalinfluences, occasion etc. child/adults/male/female.

2.**FIGURE PROPORTIONS: (06 Periods)**

Proportionate figure, its characteristics, relation of height togirth. Garments balance as applied to normal,abnormal and deformed figure.

3.**NECK LINES, TRIMMINGS: (04 Periods)**

NecklinesTypes: Necessity, stitches, trimmingusedfor different shapes.

4.**COLLARS: (06 Periods)**

Collars: Types, Methods of attaching collars, selectionof stitches,precautionsfor differenttypesofcollars, inspection, use of facing.

5.**FIXING OF SLEEVES AND CUFFTS: (06 Periods)**

Sleeves:Types,Methodoffabrication,precautionsinfabrication, inspectionofsleeveanditsfitting. Precaution and necessity of fixing cuffs, balls, precautions to be used their inspection.

6.**POSITIONING OF POCKETS & YOKES: (06 Periods)**

Types,Positioningthe pockets andyokes: Selectionofstitchesandthreads,precautions institchingandits inspection. This should be just different types of pockets and yokes

7.**LINING & INTERLINING: (06 Periods)**

Types,Importanceof lining andinterlining, methodofattachingwithdifferent types ofgarments,matchingof lining and their inspection.

8.**DARTS, TUCKS, PLEATS: (06 Periods)**

Types and Importance of darts, tucksand pleats forproper fitting, their use in different garments, precautions tobe taken, checking and mode of alterations for proper fitting.

9.**SKIRTS: (06 Periods)**

Types of skirts, method of fabrication.

10.**BIFERCATED WEAR: (06 Periods)**

Types of bifurcated wear, methods of fabrication.

LIST OF PRACTICALS

1. Prepare folders of the following:

a-Lace folder
b-Button folder
c-Snap button folder
d-Hooks and eye holder
e-Zip folder

2. Designdifferenttypes of midi dresses incolouron1/2imperial size drawing sheet.

3. Design10summer wear with water colours on1/2imperial size drawing sheets.

4. On1/2imperialsizesheet foreachgroupsketchthefollowing:

Group a-Children wear

(i) Casual
(ii)Play time

(iii) Formal
(iv)Night wear

Group b-Men's wear

(i) Sports wear
(ii)Casual
(iii) Formal

Group c-Women's wear
(i) Night wear
(ii)beach wear
(iii) Salwar kameez
(iv)Formal western
(v) Winter wear (Pullovers/knitwear)
(vi)Coats/Caps
(vii) Sari blouse
(viii)Choli blouse

INSTRUCTIONAL STRATEGY
Since this subject is practice oriented, the teacher should demonstrate practical significance of thevarious areas. Visits to Fashion industries must be carried out, so as to make the students can understand where and how the various instruments are used in the industry

MEANS OF ASSESSMENT
-Model making
-Actual Practical Work
-Viva-voice

RECOMMENDED BOOKS
-Innovative Fashion Sketching By Rita Gersten, Innovative Enterprises publication.
-Rendering fashion Fabric By Steve Greenberg,M.KathleenColussy Publication.

Websites for Reference:
-www.wikihow.com
-www.en.wikipedia.org

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	4	8
2	6	10
3	4	7

4	6	11
5	6	10
6	6	12
7	6	10
8	6	11
9	6	11
10	6	10
Total	**56**	**100**

3.2 DRAFTING AND PATTERN MAKING-II

L	T	P
-	-	10

RATIONALE

Theobjectiveof this paper istoacquaintthe students with the correct use of equipments, drapingcloth into styles pattern making for commercialandindividual designing.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

-Understood Drafting Term.
-Make draft and pattern of different equipment.
-Do pattern Layout.

.

DETAILED CONTENTS

1.**PATTERN MAKING:**

- Pattern for individual designing
- Pattern for commercial use
- Use of Fashion sketches for making pattern.

2.**DRAFTING AND PATTERN MAKING OF COLLARS:**

DraftingandPatternlayoutofthefollowingCollars (Drafting, pattern layout and fabrication of open and closed collar)

I. Band Collar
II.Rolled Collars
III. Flat Collars
IV.Combination Collars

3.**DRAFTING AND PATTERN MAKING OF SLEEVES:**

(Drafting, patternlayoutfabricationoffullandhalf sleeve according to garment).

I. Set in Sleeve
II.Extended Sleeves - Magyar Dolman, Kimono, Butterfly, and Raglan

4.**OUTFITS:**

Salwar (2 and 4 piece), Churidar, Dhoti Salwar, Patiala, Straight Pants, Palazzos Straight Kurta A- Line Kurts, B- Princess Line Kurta Anarkali, Nighty, House Coats, Evening Gown, Tops.

LIST OF PRACTICALS

1.Adult bodice Block for Ladies, Adult Sleeve Block.

2. Types of Sleeves – Plain, Raglan Sleeves, Tulip Sleeves, FullSleeves with cuffs for Ladies, Lantern Sleeves Draft variation ofSleeves.

3.Types of collars- Standing collar, Shirt, Chelsea, Jabot, Funnel, Turtle Neck, Convertible, Gown, Draft variation of collars.
4. Drafting and Pattern Layout of Garments based on theory.

INSTRUCTIONAL STRATEGY
Since this subject is practice oriented, the teacher should demonstrate the capabilities of drafting to students while doing practical exercises.

MEANS OF ASSESSMENT

-Pattern making
-Actual Practical Work
-viva-voice

RECOMMENDED BOOKS
-Dress Making by Ronkelty Terry Evon, Himalayan Publication.

3.3 FABRIC SELECTION AND IDENTIFICATION

L T P
4 - 6

RATIONALE

Theobjectiveof this paper isto acquire knowledge of different type of fabrics, types of fabric for making different types of garments as per their use.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:
1-Determine overall style and beauty of a Garment.
2-Understood Different types of fabric and their application.

.

DETAILED CONTENTS

1.**General processing of fabrics (elementary treatment) (16 Periods)**

1.1 Need for fabric processing
1.2 Scouring
1.3 Bleaching
1.4 Mercerizing
1.5Sanforizing
1.6Tentering
1.7Calendering
1.8 Beetling
1.9 Napping
1.10Acid finish
1.11Crease resistance finish.
1.12Mothproof
1.13Flame proof
1.14Water proof
1.15Raising
1.16Milling

2.**Selection of fabrics (14 Periods)**

2.1 Suitability with respect to figure, fashion, climate,age, sex, profession
2.2 Cost
2.3 Care

3. Methods for their identification, properties and uses. **(10 Periods)**

4. Quality assessment of differentcommercial fabrics. **(16 Periods)**

-Fabric Defects
(Inspection Table)
-EPI/PPI variability
-Yarn regularity

-Shrinkage
-Fading of colour (if coloured)
-Pattern continuity (if figured)
-Design out
-Weight/Colour/Width/Variation

LIST OFPRACTICALS

- Presentation of samples in a folder with technical details.

INSTRUCTIONAL STRATEGY

The subject requires both theory and practical emphasis simultaneously, so that the student can understand the practical significance of the various areas. Visits to Fashion industries must be carried out, so as to make the students can understand where and how the various instruments are used in the industry.

MEANS OF ASSESSMENT

- Assignments and quiz/class tests
- Mid-term and end-term written tests
- Actual practical work
- Viva-Voce

RECOMMENDED BOOKS

- 1-Textile fibre to Fabricby Bernard P. Corbman, McGraw Hill Publication.
- 2-Fabric Properties Testing By Vikrant Prasad Bioscientific Publisher.
- 3-Fabric Science By Seema Sekhri, PHI Learning Pvt. Ltd.

Websites for Reference:

- -https://sewing.com
- - www.fibre2fashion.com

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	16	30
2	14	20
3	10	20
4	16	30
Total	**56**	**100**

3.4 Knitwear Technology

L	T	P
4	-	6

RATIONALE

Knittedgarmentsarequiteinvogueandtheir acceptability is growing fast. The objective of the paper is toproducestudents trained in knittedproductswhocan understand manufacturing technologyand commercial influences on product development.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:
1-Have knowledge about Different Types of knitting.
2-Have Knowledge about How to do Knitting and Create pattern.
3-Apply knitting pattern to Different knit wear for men, women and kids.

DETAILED CONTENTS

1.**FUNDAMENTALS OF KNITTING:** **(10 Periods)**

I. Origin and definition of art of knitting.

II.History of knitting.

III. Techniques of knitting.

2.**KNITTING TERMINOLOGY:** **(10 Periods)**

Toacquaint with all the terms related to knittingmachine and knitted structures

3.**KNITTING ELEMENTS:** **(10 Periods)**

Toacquaintwithvariouselementsrelatedtoknitting machine.

4.**WEFT KNITTING:** **(12 Periods)**

1. Brief idea of weft knitting machine.
2. Flat and circular knitted structures.

5.**WARP KNITTING:** **(14 Periods)**

Brief idea of warp knitting machine, Raschal and Tricotand Knitted structures.

LIST OF PRACTICALS

1. Correct method of holding the Knitting needles, cast onand cast-off stitch, Increasing and decreasing stitches finishing the raw edges.

2. Basic knitting by hand and machine.

a) Knit stitch, purl stitch, stocking stitch.

b) Rib - stitch, Moss or Seed stitch, garter stitch.

c) Slip stitch pattern, cable & cross stitchpattern & other fancy stitch.

3. Making ribbons, pom-poms, cords, buttons.

4. Makingof different types of simple and fancybuttons holes.

5. Estimationofwoolrequiredforvarioustypesofgarments.

6. Knitting

Socks, Booties, Cap, Sweaters.

a) Various types of neck lines.

b) Sleeves.

c) Pockets.

d) Plackets.

e) Collars.

-Letter knitting

-Figure knitting

-Decorative motifs (Embroidery, beads, lace tec.)

7. Repair and alterations - Samples only. Hand and Machine

8. Design collection/Art portfolio.

INSTRUCTIONAL STRATEGY

The subject requires both theory and practical emphasis simultaneously, so that the student can understand the practical significance of the various areas. Visits to Fashion industries must be carried

out, so as to make the students can understand where and how the various instruments are used in the industry

MEANS OF ASSESSMENT
-Model Making
-Actual Practical work.
-viva-voce

RECOMMENDED BOOKS
-The Knit Stitch Pattern Handbook By Melissa LeapmanPotter Craft publication .
-Step By Step Knittingby Michelle Welsh, Novelty Publishing LLC .

Websites for Reference:
-https://en.m.wikipedia.org
-https://sheepandstitch.com
-https://crafts.tutsplus.com

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	10	15
2	10	20
3	10	15
4	12	25
5	14	25
Total	**56**	**100**

3.5 INDUSTRIAL TRAINING-I

After the Examinationstudents of II Semester shall have a 4-week hands ontraininginany concernengagedin Garment (Textile, leather & Knitwear) manufacturing/NGO/Industry/related Fields.

Thepurposeofthe visitis to enrich the students learning.

Every student will submit the institution a report of his/her training engagement.

The report will invariably contain the description of hisobservations about

(1)Products/Work/Design

(2)Tools and equipment's Used

(3)Packing,Dispatchingof products.

Student will be evaluated by III Semester project examiner for 50 marks--40 for viva and 10 for the report presented.

4.1 COMMUNICATION SKILLS – II

L	T	P
4	-	2

RATIONALE

Knowledge of English Language plays an important role in career development. This subject aims at introducing basic concepts of communication besides laying emphasis on developing listening, speaking, reading and writing skills as parts of Communication Skill.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

- Frame correct sentences with illustrations
- Comprehend the language correctly
- Interpret the language correctly
- Use given material in new situations.
- Correspond effectively using various types of writings like letters, memos etc.
- Communicate effectively in English with appropriate body language making use of correct and appropriate vocabulary and grammar in an organised set up and social context.

DETAILED CONTENTS

1. Functional Grammar (16 periods)

1.1 Prepositions
1.2 Framing Questions
1.3 Conjunctions
1.4 Tenses

2Reading (16 periods)

2.1 Unseen Passage for Comprehension (Vocabulary enhancement - Prefixes, Suffixes, one word substitution, Synonym and Antonym) based upon the passage should be covered under this topic.

3 Writing Skill (24 periods)

3.1. Correspondence
a) Business Letters- Floating Quotations, Placing Orders, Complaint Letters.
b) Official Letters- Letters to Government and other Offices
3.2. Memos, Circular, Office Orders
3.3. Agenda & Minutes of Meeting
3.4. Report Writing

LIST OF PRACTICALS

Note: Teaching Learning Process should be focused on the use of the language in writing reports and making presentations.
Topics such as Effective listening, effective note taking, group discussions and regular presentations by the students need to be taught in a project oriented manner where the learning happens as a byproduct.

Speaking and Listening Skills

1. Debate
2. Telephonic Conversation: general etiquette for making and receiving calls
3. Offering- Responding to offers.
4. Requesting – Responding to requests
5. Congratulating
6. Exploring sympathy and condolences
7. Asking Questions- Polite Responses
8. Apologizing, forgiving
9. Complaining
10. Warning
11. Asking and giving information
12. Getting and giving permission
13. Asking for and giving opinions

INSTRUCTIONAL STRATEGY

Students should be encouraged to participate in role play and other student-centered activities in class rooms and actively participate in listening exercises

MEANS OF ASSESSMENT

- Assignments and quiz/class tests
- Mid-semester and end-semester written tests
- Actual practical work, exercisesand viva-voce
- Presentation and viva-voce

RECOMMENDED BOOKS

1. Communicating Effectively in English, Book-I by RevathiSrinivas;Abhishek Publications, Chandigarh.
2 Communication Techniques and Skills by R. K. Chadha; Dhanpat Rai Publications, New Delhi.
3 High School English Grammar and Composition by Wren & Martin; S. Chand & Company Ltd., Delhi.

4. e-books/e-tools/relevant software to be used as recommended by AICTE/BTE/NITTTR,Chandigarh.

Websites for Reference:

1. http://www.mindtools.com/ page 8.html – 99k
2. http://www.letstalk.com.in
3. http://www.englishlearning.com
4. http://learnenglish.britishcouncil.org/en/
5. http://swayam.gov.in

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	16	28
2	16	28
3	24	44
Total	**56**	**100**

4.2 GARMENT FABRICATION

L	T	P
-	-	12

RATIONALE

Theobjectiveof this paper is to familiarizethestudentregarding fabrication of garments for children and varioustypes of stitches, seams,trimmings, finishing of garments,different types of openings, plackets, fasteners, yokes and fittings etc.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

1- Demonstrate the working of sewing machines
2- Explain different types of stitches used for making a garment
3- Stitch all types of kids and women wear garments
4- Address and resolve all types of fitting problems.

.

DETAILED CONTENTS

1.**FABRICATION OF GARMENTS:**

Studied in Drafting & Patternmaking II Subject.

2.**OPENINGS:**
Necessity of opening types - Plain,plackets, side placket, faceplacket,slit in front, continuous plackets, two-part placket, precautionsin fabrication of stitches to be used. Specificuseof openings in different garmentsandtheir checking.

3.**FASTNERS:**
Necessityandselection of various fasteners,likesnap,hooks, various types of fixing, Zips, button, eyelet, nighty fasteners. Use of Proper colour, size of thread and method of stitching and checking of fixing the fasteners.

4.**YOKES & TRIMMINGS:**
Necessity and method of fabricating, various types of yokes, useof trimmings, lace piping, smoking, honey comb,pleats and gathers.

5. IMPORTANCE OF FITTING:
Importanceof fitting, checking for fitting on figuresand dummies. Alterations to be done for correct fitting. Garment Fabrication -Practical's

1. Samples of opening in plain fabric, placket stitches.
2. Practice of fixing fasteners.
3. Fabrication of garments studied in Drafting & Patternmaking II Subject.

6.**Mass Production:**

- Sketch 6 designs for each garment
- Select one Design for fabrication.
- Make paper pattern.
- Make Pattern layout.
- Cut, Stitch, and finish the garment.
- Do a cost analysis of the final product.

INSTRUCTIONAL STRATEGY

The subject requires both theory and practical emphasis simultaneously, so that the student can understand the practical significance of the various areas. Visits to Fashion industries must be carried out, so as to make the students can understand where and how the various instruments are used in the industry

MEANS OF ASSESSMENT

-Assignment and quiz/ class test.
-Model Making
-Actual practical Work
-viva-voce

RECOMMENDED BOOKS

-Cutting & Tailoring Course By Gayatri Devi And kapil Dev Computech Publications.
- Tailoring Cutting and Fashion Designing, Dhanpat Rai & Co Pvt Ltd.

Websites for Reference:

-www.textilescience.com

4.3 LEATHER SCIENCE

L	T	P
4	-	4

RATIONALE

Theobjectiveof this paper isto acquire knowledge of different type of Leather, types of fabric for making different types of leather garment as per their use

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:
1-Explain different types of Leather.
2-Understood manufacturing and uses of Leather.
3-Identify the parts of leather that can be use in different place.

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DETAILED CONTENTS

1.**LEATHER STRUCTURE AND ITS SUITABILITY TO VARIOUS USES: (10 Periods)**

A. Animal use for leather garment, shoes and accessories.

B. Structure of various animal as Buffalo, Cow, Goat, Seepand Pig.

C. Structure of leather and chemical composition of Hi skin.

D. Suitability of different leather areas for specificgarment part as front, back, armhole, etc.

2.**LEATHER QUALITY:** **(08 Periods)**

A. Generaldefinitionandrecognitionofquality within leather.

B. Defect of leather.

C. Shade, identification and sorting.

3.**PROCESSING:** **(10 Periods)**

A. Understanding of leather processing.

B.Preservationcuring,soaking,liming,picklingtannage, retannage, Fat, Liquoring, Dying, Finishing.

4.**FASHION EFFECT:** **(10 Periods)**

Various fashion effects: Screen printing, Embossed and abraded patterns. Punching, purporting Embroidery, Stamping, etc.

5.**TESTING:** **(08 Periods)**

A. Testingandperformancei.e.elasticity/plasticity. Thermostatic property, tear strength, other relevanttests. International quality standards.

B. Colour fastness for dry cleaning.

C. Light fastness.

D. Colour fastness for rubbing, abrasion resistance, etc.

E. Performance of leather for garments international standards.

6.**LEATHER CARE:** **(10 Periods)**

A. Treatment of leather garment before cleaning

B. Homecare of leather garments should be completebydrys, apply Telcom power also.

C. Care of unfinished or finished "Grain leathers".

D. Care of suede leather.

E. Implication of dry cleaning.

F. Reoiling suede and grain leather.

G. Leather garment care labeling.

H. Collecting samples of different kinds leather (Project).

LIST OF PRACTICALS

1. Measurementand the thickness of the leather sample (V.T& C.T.).

2. Determinationofthe density ofthecylindricalleather sample.

3. Find outthetensile strength of leather samplebytensile machine.

4. Find out the stitch tear resistance oftheleathersample (Double Hole).

5. Find out the tongue tear strength byutensil strength.

7. Making of key bunch.

8. Hand gloves making, design and pattern cutting.

9. Making of different types caps and hats.

10.Makingofwallets, pouches, belt,clutches,penholders, coaster and others accessories.

INSTRUCTIONAL STRATEGY

The subject requires both theory and practical emphasis simultaneously, so that the student can understand the practical significance of the various areas. Visits to Fashion industries must be carried out, so as to make the students can understand where and how the various instruments are used in the industry.

MEANS OF ASSESSMENT

-Actual Practical Work
-Mid-term and end term test.
-Assignment, Quiz and Class test.
-viva-voce

RECOMMENDED BOOKS

1-The Principles of Leather Manufacture by H R Procter, Read Books publication.
2-How to work with leather book by Katherine mansfield.Generic publication.

Websites for Reference:

-https://www.britannica.com
- www.csir.res.in

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	10	20
2	8	10
3	10	20
4	10	20
5	8	10
6	10	20
Total	**56**	**100**

4.4 CAD FOR COSTUME-I

L	T	P
4	-	8

RATIONALE

The student of diploma in Fashion Designing & Garment Technology must understand the use of Computer Aided Design in the fashion & Apparel Industry. Students are required to develop graphic design work, create layouts and concepts based on professional creative approaches and techniques and begin to develop quality pieces for portfolio.

LEARNING OUTCOMES

1-Design and validate Technological solution to defined problem and communicate clearly and effectively.
2-Have Ability and capability in developing and applying computer software and Hardware to design field.

Note: Suitable Alternative open-source software can be utilized for performing the exercises.

DETAILED CONTENTS

1.**MS PAINT:**

THEORY:

Toolsvariations,Menubar, ScreenElements,ToolsLine, CurveLine,Rectangular, Ellipse, Freehand,SelectTool, eraser Tool, Pick Colour Tool, Magnifier Tool, Paint Bucket, Text, Polygon, Air Brush, Preference Tool.

Commands:

Page setup, Undo, Cut, Copy, Paste, Clear Selection,Select All, Color Box, Status Bar, Zoom, Flip/Rotate, Stretch/Skew.

Practicals:

Tools variations, Menu bar, Freehand Sketching.

2.**COREL DRAW:**

THEORY:

-Introduction, Content of Menu Bar, Tools Variation.
-Screen Elements/Tools Pick Tools, Shape Tools, Pencil Tools, Rectangle, Ellipse, Fill, Outline, Text.

Commands:

Cut,Copy,Paste,convert to curve,Trim,Weld,Group, Ungroup,Combine, Break a Part, Texture, Grid, GuideLine, Transform, Roll Up, Extrude, Rollup, Lens Rollup perspectiveRoll Up.

Practicals:
BlockFigure, Flashing,Drafting, ToolsVariations, Draping, Freehand Sketching.

3.**ADOBE PHOTOSHOP:**

1. Opening Documents:

Understanding image resolution, Importing images.

2. Drawing and Painting Tools:

Choosingcolours,DrawingTools,GradientTools,Shape Tools, Transform Tools.

3. Creation of Pattern.

4. Creation of Layer.

5. Creation and manipulation of text.

6. Image editing using Photoshop

PRACTICALS:

Usingtheabovetechnique, Draping ofbodiceblockand editing scanned images.

4. 2Dpatternmaking,Patternalteration,Grading, Blockfusing,Markermaking, NC cutpathoptimizations,Plaid matching,Digital print block for sample cutting,Material spreading, Colour separation, repeats, Colour ways,Weaves, Knits,Jaquards,story boards, Typesofnotches,Darts, Pleats, Seams, Drill holes, Internal Colour.

LIST OF PRACTICALS:

Note: Suitable Alternative open-source software can be utilized for performing the exercises.

1. Create New Colours.

2. Create Colour Ways.

3. Create Story Boards.

4. Create various types of notches, darts, plaets, seams, drillholes and internal countours.

5. Design knits, Weaves and Jaquards.

6. Design New Print.

7. Change Existing Design.

8. Drafting and Pattern making- Marker making(layout) using Tukatech, Gerber, Magnum, Lectra or any other latest similar software

INSTRUCTIONAL STRATEGY

This is a practical based subject; hence the demonstration & application approaches should be adopted by the faculty to teach this subject.

MEANS OF ASSESSMENT

-Assignment, Quiz and Class test
-Mid term and End Term test
-Actual practical work
-viva-voce

RECOMMENDED BOOKS

-Auto CAD 3D modeling by Steve HeathIndustrial Press, Inc.Publication.
-3D CAD with Autodesk 123D ByJesse Harringto AuO′Reilly Publication.

Websites for Reference:

-https://en.m.wikipedia.org
-https://www.autodesk.in

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	14	25
2	14	25
3	14	25
4	14	25
Total	**56**	**100**

4.6ENVIRONMENTAL STUDIES

L	T	P
3	-	2

RATIONALE

A diploma holder must have knowledge of different types of pollution caused due to industries and constructional activities so that he may help in balancing the ecosystem and controlling pollution by various control measures. He should also be aware of environmental laws related to the control of pollution.He should know how to manage the waste.Energy conservation is the need of hour.He should know the concept of energy management and its conservation.

LEARNING OUTCOMES

After undergoing the subject, the student will be able to:

- Comprehend the importance of ecosystem and sustainable
- Demonstrate interdisciplinary nature of environmental issues
- Identify different types of environmental pollution and control measures.
- Take corrective measures for the abatement of pollution.
- Explain environmental legislation acts.
- Define energy management, energy conservation and energy efficiency
- Demonstrate positive attitude towards judicious use of energy and environmental protection
- Practice energy efficient techniques in day-to-day life and industrial processes.
- Adopt cleaner productive technologies
- Identify the role of non-conventional energy resources in environmental protection.
- Analyze the impact of human activities on the environment

DETAILED CONTENTS

1. Introduction (04 Periods)

   1.1 Basics of ecology, eco system- concept, and sustainable development, Resources renewable and non renewable.

2. Air Pollution (04 Periods)

   2.1 Source of air pollution. Effect of air pollution on human health, economy, plant, animals. Air pollution control methods.

3. Water Pollution (08 Periods)

   3.1 Impurities in water, Cause of water pollution, Source of water pollution. Effect of water pollution on human health, Concept of dissolved O_2, BOD, COD. Prevention of water pollution- Water treatment processes, Sewage treatment. Water quality standard.

4. Soil Pollution (06 Periods)

   4.1 Sources of soil pollution

   4.2 Types of Solid waste- House hold, Hospital, From Agriculture, Biomedical, Animal and human, excreta, sediments and E-waste

4.3 Effect of Solid waste

4.4 Disposal of Solid Waste- Solid Waste Management

5. Noise pollution (06 Periods)

Source of noise pollution, Unit of noise, Effect of noise pollution, Acceptable noise level, Different method of minimize noise pollution.

6. Environmental Legislation (08 Periods)

Introduction to Water (Prevention and Control of Pollution) Act 1974, Introduction to Air (Prevention and Control of Pollution) Act 1981 and Environmental Protection Act 1986, Role and Function of State Pollution Control Board and National Green Tribunal (NGT), Environmental Impact Assessment (EIA).

7. Impact of Energy Usage on Environment (06 Periods)

Global Warming, Green House Effect, Depletion of Ozone Layer, Acid Rain. Eco-friendly Material, Recycling of Material, Concept of Green Buildings.

LIST OF PRACTICALS

1. Determination of pH of drinking water
2. Determination of TDS in drinking water
3. Determination of TSS in drinking water
4. Determination of hardness in drinking water
5. Determination of oil & grease in drinking water
6. Determination of alkalinity in drinking water
7. Determination of acidity in drinking water
8. Determination of organic/inorganic solid in drinking water
9. Determination of pH of soil
10. Determination of N&P (Nitrogen & Phosphorus) of soil
11. To measure the noise level in classroom and industry.
12. To segregate the various types of solid waste in a locality.
13. To study the waste management plan of different solid waste
14. To study the effect of melting of floating ice in water due to global warming

INSTRUCTIONAL STRATEGY

In addition to theoretical instructions, different activities pertaining to Environmental Studies like expert lectures, seminars, visits to green house, effluent treatment plant of any industry, rain water harvesting plant etc. may also be organized.

MEANS OF ASSESSMENT

– Assignments and quiz/class tests,

– Mid-term and end-term written tests

RECOMMENDED BOOKS

1. Environmental and Pollution Awareness by Sharma BR; Satya Prakashan, New Delhi.
2. Environmental Protection Law and Policy in India by Thakur Kailash; Deep and Deep Publications, New Delhi.
3. Environmental Pollution by Dr. RK Khitoliya; S Chand Publishing, New Delhi
4. Environmental Science by Deswal and Deswal; Dhanpat Rai and Co. (P) Ltd. Delhi.
5. Engineering Chemistry by Jain and Jain; Dhanpat Rai and Co. (P) Ltd. Delhi.
6. Environmental Studies by ErachBharucha; University Press (India) Private Ltd., Hyderabad.
7. Environmental Engineering and Management by Suresh K Dhamija; S K KatariaandSons, New Delhi.
8. E-books/e-tools/relevantsoftware to be used as recommended by AICTE/UBTE/NITTTR, Chandigarh.

Websites for Reference:

http://swayam.gov.in

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	04	10
2	04	10
3	08	20
4	06	14
5	06	14
6	08	20
7	06	12
Total	**42**	**100**

5.1INDUSTRIAL TRAINING

It is needless to emphasize further the importance of Industrial Training of students during their 3 years of studies at Polytechnics.It is industrial training, which provides an opportunity to students to experience the environment and culture of industrial production units and commercial activities undertaken in field organizations.It prepares student for their future role as diploma engineers in the world of work and enables them to integrate theory with practice.Polytechnics have been arranging industrial training of students of various durations to meet the above objectives.

This document includes guided and supervised industrial training of 4 weeks duration to be organised during the semester break starting after second year i.e. after 4th semester examinations.The concerned HODs along with other teachers will guide and help students in arranging appropriate training places relevant to their specific branch.It is suggested that a training schedule may be drawn for each student before starting of the training in consultation with the training providers. Students should also be briefed in advance about the organizational setup, product range, manufacturing process, important machines and materials used in the training organization.

Equally important with the guidance is supervision of students training in the industry/organization by the teachers.Students should be encouraged to write daily report in their diary to enable them to write final report and its presentation later on.

An external assessment of 40 marks and 10 marks for internal assessment has been provided in the study and evaluation scheme of 5th Semester.Evaluation of professional industrial training report through viva-voce/presentation aims at assessing students understanding of materials, industrial process, practices in industry/field organization and their ability to engage in activities related to problem solving in industrial setup as well as understanding of application of knowledge and skills learnt in real life situations.

Teachers and students are requested to see the footnote below the study and evaluation scheme of 4th semester for further details.

The teacher along with field supervisors will conduct performance assessment of students. The components of evaluation will include the following:

a) Punctuality and regularity 15%
b) Initiative in learning new things 15%
c) Presentation and Viva 15%
d) Industrial training report 55%

5.2 CAD FOR COSTUME-II

L	T	P
4	-	8

RATIONALE

Students will be introduced to the usage of computer software's in different areas of Fashion Designing & Technology. Students are made skilled by learning software for Fabric surface designing.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:
1-Produce very accurate design through CAD.
2-Draw 2D and 3D and Pattern design or object.

Note: Suitable Alternative open-source software can be utilized for performing the exercises.

DETAILED CONTENTS

1.**AUTOCAD:** **(24Periods)**

THEORY:

a. DrawingTools: Line, Arc,Circle,Polygon,Multiline, Solid, Rectangle, Polyline Point.

b. EditingTools: Erase, Copy, Move, Mirror, Stretch,Scale, Fillet, Chamfer Extend, Trim.

c. Hatch Block, Page setup, Printing and Plotting

d. Dimensioning, Linetype, Layer.

Practicals:

1. Usingabove commands to create bodiceblock, Geometrical figures, Drafting of various stitched items.

2.**REACHCAD/LATEST FASHION SOFTWARE:** **(32 Periods)**

1. Practicals based on above software- Creating three dimensional Human figures and its fit a design onto the form and make Necessary changes in style of cuffs, collars and sleeves (which are stored in data bank for future reference) and finalize a design.Draw basic designs, stick figures, Bodice Block and flesh figures on computer and producing their prints for file collection. Reproducing colours in patterns(From strips or plaids to figurative designs) in fabrics (such as wool, tweed or cotton twill) under different light conditions(Natural, Incandescent of fluorescent) with different days with different textures (adding threedimensional depth to colour) and on different types of clothing (showing how finished product will look without needing to assemble). Taking out prints of above exercises for file.

2. Smart sketch

3. Corel draw

4. MS Paint

5. AutoCAD

INSTRUCTIONAL STRATEGY
This subject should be taught with demonstrating the exercise on software application.

MEANS OF ASSESSMENT
-Model and Pattern Making
-Actual Practical work
-Assignment and Class test.

RECOMMENDED BOOKS
-computer aided drawing by Aprajita Banerjee, Neelkanth Publishers Pvt. Ltd.
- Fundamentals of Computer Aided Design by Kushdeep Goyal.S.K. Kataria& Sons publication.
-Computer Aided Design and Manufacturing By Dr. Sadhu Singh, KHANNA PUBLISHERS.

Websites for Reference:
-https://en.m.wikipedia.org
-https://mrcet.com
-https://www.browzwear.com

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	24	45
2	32	55
Total	**56**	**100**

5.3 DRESS DESIGNING

L	T	P
-	-	8

RATIONALE

Designing is thefirst activity intheprocessof manufacturing a product. For garment making too designing is equally important. This paper deals speciallywith means wears. Due use of computers in these exercises be emphasized.

Note:

Lecturer/Demonstrationwill go along with practiceintutorial classes. All exercises relevant to topics inpaper shallbedone. Due use of computer intheseexercisebe emphasis.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:
1-Design Garment and Outfits for Men, women and kids for every occasion.
2-Undarstand the types and print of Fabric suitable for a Particular design.
3-Able to design Garment made of leather and Knitted Fabric.
4-Interpretate Design illustration for fabrication purpose.

DETAILED CONTENTS

- Introduction of dress design, fashion & styleand different dress materials.

- Preparation of a file (1/4 imperial size): -

1. Line sketchesof human figures (Gents,ladies andchildren)withpencil or ink, Introduction of dressdesign,fashion style and different dress materials. Sketch differenttypes of neck lines, collars, sleeves, yokes, tie, bow with ink.

2. Sketchfollowing garment designs (Boys & Men) indifferent mediums (ink, pencil, water colour, poster colour) and write special features of the dress and suitable fabric material &clothing accessories.

(i) CASUAL WEAR:

Design different types of casualdresses according to different age groups, seasons andclimatewith theuseofdifferent typesof fabric prints, checks,texturesetc.

(ii) PARTYWEAR:

Designdifferent types ofdressesfor parties, Festival- party,Cocktail-party, Marriage-party) for different age groups.

(iii) SPORTSWEAR:

Design different types of sports dresses (Tennis, Jogging, Swimming, Horse riding, SailingCricket).fordifferentagegroups.

(iv) UNIFORM WEAR:

Sketch various design related to office, school and industrial wears.

3. Sketch different types of pockets, plackets, belts with ink.

4. Story board development

(i)Colour presentation

(ii) Verbal presentation

5.MARKETRESEARCH -Design identification, developmentof strong Leather garment theme.

6. Design projects for various garment categories.

(i) Leather(ii) Textile (iii) Knit(v) Embroidery

7. Interpretation of drawings into garments by variouspattern techniques.

8. Visualandverbalanalysisandassessmentoffinished garments.

INSTRUCTIONAL STRATEGY
Since this subject is practice oriented, the teacher should demonstrate practical significance of the various areas. Visits to Fashion industries must be carried out, so as to make the students can understand where and how the various instruments are used in the industry

MEANS OF ASSESSMENT
-Model /Pattern Making
-Actual Practical work
-viva-voce

RECOMMENDED BOOKS
-innovative Fashion Sketching By Rita Gersten, Innovative Enterprises publication.
- Rendering Fashion, Fabric, and Prints by Steve Greenberg,by Pearson India publication.

Websites for Reference:
-www.wikihow.com
-www.wikipedia.org

5.4 LEATHER GARMENT CONSTRUCTION

L	T	P
4	-	6

RATIONALE

LeatherGarmentsare now wellacceptedarticlesoffashionandutility.Knowledgeoftheirconstruction techniques is essential for any modern fashion technologist.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:
1-Explain sewing techniques which involved in the process of construction.
2-Describe instrument require in garment making
3-Practice on various leather to know their identification.

DETAILED CONTENTS

1.**INTRODUCTION:** **(5 Periods)**

A. Classificationof leather garment based on materialdesign usage and fashion.

B. Choice of leather kind for various type of garment and their parts.

C. Types of lining and padding material

E. Types of fasteners and gain dries.

2.**PATTERN MAKING:** **(15 Periods)**

1. Blockpatterndevelopmentfront sizechartsand specifications.

2. Three Dimensional development via darts and seam lines.

3. Princess line blocks and development of flair.

4. Types of collar, sleeves, pocket and pleats, etc.

5. Techniques of leather cutting.

6. Effective placement of pattern to minimize of leather waste

7. Cutting room practice - i.e. sorting, selecting and cutting.

8. Development of leather cutting skills.

9. Silhouette development and hole setting.

10.Complex style readings and proportion judgment.

11.Men's wear pattern cutting for tailored jackets and coats i.e. SB., DB. etc. and trousers.

12.Children wear pattern cutting for variety of smartand casual styles.

13.Leather fitted garments for evening wear.

3.**GARMENT FABRICATION: (15 Periods)**

1. Machinery: Control, Threading, Adjustments.

2. Garment Assembly Sequences.

3. Types of Threads, Needles, stitch and Seam.

4. Fusible and non-fusible inter linings.

5. Adhesives.

6. Techniques of sleeves and collar and hood setting.

7. Making specific garment.

8. Garment Specification.

9. Recoverywaste and its utilization infabricationvarious smallitemsof fashion and utilitysuchas HandGloves, HeadWears, Covers for Key bunch, spectacles and Purses,etc. to name a few.

4.**EQUIPMENT AND MACHINERY: (15 Periods)**

Studyofsewingmachinesincludingneedlefeedtypes, cutting machines, Button hole and button stitching machines, Ironing press, Heat tools - Cutting measuring marking,etc. specialfeatures furnitureandlayouts.Dummiesfor checking fittings.

5.**PROJECTS: (6 Periods)**

Collectionofdesigns, professional standards ofcutandfits and interpretation of the range.

LIST OF PRACTICALS

1. Designing, drafting, pattern cutting

2. Menswear garment.

3. Ladieswear garment.

4. Childrenwear garment.

INSTRUCTIONAL STRATEGY
Since this subject is practice oriented, the teacher should demonstrate practical significance of the various areas.

MEANS OF ASSESSMENT
-Assignment, Quiz and Class test.
-Mid term and end term Written test.
-Actual Practical Work
-viva-voce

RECOMMENDED BOOKS
-Apparel Pattern Designing By Aswath N Hiraskar, Notion Press publication.
-Advanced Garment Construction Guide By Dr M sumithaAdvanced Garment Construction Guide.

Websites for Reference:
-www.behance.com
-https://apparelresources.com
-www.fibre2fashion.com

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	5	10
2	15	25
3	15	25
4	15	25
5	6	15
Total	**56**	**100**

5.5GRADING

L	T	P
4	-	-

RATIONALE

Objective of this subject is to acquire knowledge about different grading techniques which are important in mass construction of garments in a rapid way in apparel industries **.**

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:
1-Articulati the role of outcomes based Grading
2-Implimenting pattern grading in CAD.
3-Produce garment in a range of size by applying increase and decrease at points of a base size pattern.

DETAILED CONTENTS

1. Pattern manipulation – Shifting and relocating of Drafts, Yoke manipulation different style- Pivot, Slash and Measurement method. **(10 Periods)**

2.**PRINCIPLES OF GRADING: (18 Periods)**

A.Women's Sizing and Surveys:

Studyof basic size charts, height analysis, heightgrade, choice of bust and waist size, Area increment charts.

B.Women's Grading Increments:

Covering all types of basic block - three-dimensional grade, two-dimensional grade.

C.Area Commentaries:

Partbypart examination of the body incrementsandthe problem arising in each area - Height and Weight.

D.Selecting Grading System & Techniques Grading System:

Three-dimensional grading two dimensional system -Grading Technique - The draft grade, the track grade.

3.**GRADING TECHNIQUES: (18 Periods)**

Draftgrading basic block - back bodice- heightandgirth grading front bodice, grading the set-in-sleeve, grading the skirt block.

SelectingZeroPoint - Methods selecting azeropoint- draft grading using different points.

4.**WOMEN'S STYLE GRADING: (10 Periods)**

The grading of a complete style - grading specification size chart, size range, height/girth/length, Proportioning, Types ofGrade,Zeropoint front, Zero pointbackzeropointsleeve, Categories of Fit.

Men's Grading:

Trouser Grading, Shirt sizing grading.

INSTRUCTIONAL STRATEGY

The subject requires both theory and practical emphasis simultaneously, so that the student can understand the practical significance of the various areas.

MEANS OF ASSESSMENT

-Assignment, Quiz and Class test.
-Mid-term and end term Written test.
-viva-voce

RECOMMENDED BOOKS

-Designing, Cutting and Grading Boot and Shoe Patterns, and Complete Manual for the Stitching Room Boot By C B Hatfield.Read Books publication.
-Concepts of Pattern Gradingby Kathy K. Mullet,Fairchild Books Publication.

Websites for Reference:

-www.researchgate.net
-https:// https://ejournal.undiksha.ac.id

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	10	20
2	18	30
3	18	30
4	10	20
Total	**56**	**100**

5.5 JWELLERY AND FASHION ACCESSORIES
(COMMON WITH ONE YEAR P.G. DIPLOMA IN FASHION TECHNOLOGY)

L	T	P
1	-	7

Rationale:
Changes in designs of apparel, jewelry and fashion accessories keep the fashion vibrant and dynamic. Their demand in society is always in unison with the pace of changes. Jewelry and fashion accessories and their designing are well established professions. Due use of computer in development of designs be emphasized.

Note:
Lecturer/Demonstration will go along together. Importance to practical during the session is to be appreciated. Due use of computer in development of designs be emphasized. There will not be any theory examination.

LEARNING OUTCOMES
After undergoing the subject, the students will be able to:

1- Design costume jewelry
2- Have an understanding of precious and semiprecious stones
3- Will be able to make wearable artificial jewelry using different materials which can be sold in the market.
4- Design and fabricate accessories for outfits.

DETAILED CONTENTS

1.BASICS: (02 Periods)
Jewels- their shapes. Forms and types. Techniques. Creations. Inspiration.
Elements - Studded gold, plain gold, and other metals.

2.GEMS IDENTIFICATION: (02Periods)

Cuts, Sizes, shapes, using different identification techniques.

3. JWELLERY: Accessories, styles and their creative uses. Preparation and collection of design Andtheir analysis. (02 Periods)

4. FASHION ACCESSORIES: (02Periods)

Fashion leather and their creative uses Hats, Bags Shoes, Key Chain Umbrellas, Bags, Purses, Wallets, Prepare two articles of different Types of accessories.

5. STYLES OF FASHION ACCESSORIES: (02Periods)

Styles and variation in Fashion accessories. Designing and orientation/various aspects of different fashion accessories. Materials used for Fashion Accessories, Suitability of fashion accessories according to figure type

6.Market surveys and Research for proper selection of accessories. (02Periods)
7. Prepare 5 sets of jewellery with 5 items using different materials (02Periods)

INSTRUCTIONAL STRATEGY

Since this subject is practice oriented, the teacher should demonstrate practical significance of the various areas. Visits to Fashion industries must be carried out, so as to make the students can understand where and how the various instruments are used in the industry

MEANS OF ASSESSMENT

- Model/ Pattern making
- Actual practical work
- Viva-Voce

RECOMMENDED BOOKS

1. A Golden Treasure Jewelry from the Indian Subcontinent by Susan Stronge, Nima Smith & J. C. Harle, Publication: Victoria & Albert Museum
2. Masterpieces of Indian Jewelry by Jamila Brijbhushan, Publication: Tara P. Ravata.
3. Indian Costume Coiffure and Ornament by Sachinanand Sahay Publication: MunshiramManoharlal
4. Jewelry Making Manual by Sylvia, Publication: Mac Donald

Websites for Reference:

1. https://en.wikipedia.org/wiki/Fashion_accessory
2. www.jewelryinfoplace.com

6.1 APPAREL INDUSTRY & PRODUCTION MANAGEMENT

(COMMON WITH ONE YEAR P.G. DIPLOMA IN FASHION TECHNOLOGY)

L	T	P
7	-	3

Rationale:

A fashion technologist involved in dress making should have idea of market, readymade garments industry and its scope, strength and threats to it. He should be able to control the industry's managerial and technological aspects. The paper aim to fulfill this objective.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

1- Understand the different ways in which the fashion industry operates
2- Handle work pressures in a better manner
3- Have full knowledge of the working of different departments in a garment manufacturing unit

DETAILED CONTENTS

1) ORIGIN OF APPAREL INDUSTRY (16 Periods)

-Strength, weakness, threats and opportunities to industry.
-Present status of industry.
-Types of manufacturing system -
*Subcontract
*Whole garment
*Assembly

2) CUTTING ROOM PLANNING: (16 Periods)

Planning, cutting, sorting, conditions for cutting room layout, manpower, machines, tools and equipment.
Marker making, Marker mode.
Spreading Techniques,
Symmetry, asymmetry of fabrics and garments.
Different types of fabrics and special care to be taken for spreading and cutting, sorting, bundling.
Inventory Control.

Lab Sessions.

Project - cutting room analysis, cutting room layout, cut plans.

3) SEWING PRODUCTION MANAGEMENT: (16 Periods)

*Stitch classifications, seams and their effect on elasticity, strength, slippage.
-Definition
-Time and motion study
-Importance of time and motion study
-Fatigue, delays, effect on efficiency
-Output

-Using video cassettes for time & motion study.
-For quality and quantity analysis
-Documentation, control forms
-Flow charts.
-Production control systems.
-Definition, types, criteria, planning and layout.

Lab Session: Study of lockstitch machine, quality inspection of stitches on different fabrics

Project: Layout for assembly line and different machine analysis

4)FINISHING (16 Periods)

-Shaping
-Pressing, Processes, Equipments (Irons, Presses, others)
-Qualitative and quantitative analysis
Control.
-Removal of different stains.

5) COST AND COST CONTROL (12 Periods)

-Definition, types and expenses.
-Production cost control and cost reduction.
-Break even & charts.

6) QUALITY CONTROL (12Periods)

-Definition, scope.
-Establishing Raw material quality control and their procedure.
-Establishing processing quality control and their procedure.
-Quality control for finished garments.
-Quality control for packaging.
-Industry wide quality standards.
-Standards and specifications, ISO inspection methods, different types of quality control.

7) COMPETITION AND AUTOMATION FOR APPAREL MANUFACTURING (10 Periods)

Introduction, side by side we will see use of automation in the industry and its various aspects like cutting, sewing, finishing etc.

8-FACTORY VISIT

LIST OF PRACTICALS

1. Visit to an Export house or manufacturing unit.
2. Make ten samples showing different SPI
3. Depict different ways in which fabric is folded for cutting

4. Prepare a project report in the fashion industry visit including factory layout and details of different department.

INSTRUCTIONAL STRATEGY

The subject requires both theory and practical emphasis simultaneously, so that the student can understand the practical significance of the various areas. Visits to Fashion industries must be carried out, so as to make the students can understand where and how the various instruments are used in the industry.

MEANS OF ASSESSMENT

- Assignments and quiz/class tests
- Mid-term and end-term written tests
- Model making
- Actual practical work
- Viva

RECOMMENDED BOOKS

1. Fashion Marketing by Mike Easey, Publication Blackwell
2. Fashion Marketing & Merchandising by Manmeet Sodhia& Pooja Chatley, Publication: Kalyani Publications.
3. Clothing Technology by Verlag Europa Lehrmittel, Publications: Nourney, Vollmer Gmbh& Co.

Websites for Reference:

1. https://textilestudycenter.com/
2. https://www.onlineclothingstudy.com/

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	16	16
2	16	16
3	16	16
4	16	16
5	12	16
6	12	10
7	10	10
Total	98	100

6.2BUSINESS ORGANISATION & ENTREPRENEURSHIP DEVELOPMENT.

L	T	P
6	-	-

RATIONALE

The objective of this paper is to make thestudents familiarwithentrepreneurshipdevelopment, small scale industries, financialmanagement, marketingtechniques, industrial management, banking and postal information etc.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:
1-have knowledge about how to start own business .
2-Improve their knowledge, attitudes, skill and wealth.
3-Help to bring changes in the process of production, innovation and uses of new material .

DETAILED CONTENTS

1.**Entrepreneurship:** **(9 Periods)**

Entrepreneur,entrepreneurship, its meaning&importance, qualities ofanentrepreneur, entrepreneur motivationtraining, achievement planning.

2.**Small scale industries:** **(12 Periods)**

Role and importanceof small-scale industries, village industry, tinyindustry, smallscale andancillaryindustry.General principlesoforganizationand managementnature,typesandfunctions.

3.**Financial Management:** **(12 Periods)**

Estimatingandcosting, financial institutionsforland, infrastructure, machinery and raw materials.

4.**Marketing Techniques:** **(12 Periods)**

Project selection based on market survey, demand andsupply estimationproduct life cycle. Basic conceptofmarketing and salesmanship.

5.**Industrial Management:** **(12 Periods)**

Generalcleanliness and supervision, preparing salariesand wagebills, proper stores, studying purchaserequirements, maintenanceof stock and stock books, receipt and issueof stock.Workingcapital management,personnelmanagement, Book keeping, balance sheet, break even analysis.

6. Project identification, analysis and report writing. **(7 Periods)**

7. Export Management: **(7 Periods)**

Documentation, Procedures andbriefintroduction of export promotion organization.

8. GovernmentRules and Regulation, Policies, Single storyVsMulti Story layout **(7 Periods)**

9. Merchandising **(6 Periods)**

INSTRUCTIONAL STRATEGY

Some of the topics may be taught using question/answer, assignment, seminar or case studymethod. The teacher will discuss stories and case studies with students, which in turn will developappropriate managerial and entrepreneurial qualities in the students. In addition, expert lecturers may also be arranged from outside experts and students may be taken to nearby industrial organisations on visit. Approach extracted reading and handouts may be provided

MEANS OF ASSESSMENT

-Assignment, Quiz and Class test.
-Mid term and end term Written test.
-viva-voce

RECOMMENDED BOOKS

-Entrepreneurship Development and Business Ethics by Abhik Kumar,Oxford University Press publication.

Websites for Reference:

-https://www.arabianjbmr.com
-www.icsi.edu

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	9	10
2	12	15
3	12	15
4	12	15
5	12	15
6	7	9
7	7	8
8	7	8
9	6	5
Total	**84**	**100**

6.3 FASHION ILLUSTRATION AND MODEL DRAWING

L	T	P
2	-	12

RATIONALE

Without an understanding practice and experience in "Fashion illustrationand Model Drawing" a fashiondesigner/technologist canneverachieve success. The course has beengradedinfour successive parts to achieve the desired objectives.

Note:

Lecturer/Demonstrationwill go along with practicein tutorials. A file of exercises is to bemaintained. At least 20 exercises relevant to the topics in the paper to be done. Computeruseinthese exercises-whereapplicablebe demonstrated and exercised.

LEARNING OUTCOMES

After undergoing the subject, the students will be able to:

1-Sketch different kind of Body and silhouette of a garment.
2-Illustrate fashion ideas in a visual form.
3-Focous on figure wearing the clothes and less on particular clothing.
4-Achieve basic knowledge and skill in drawing the fashion figure and how it is used for fashion design.
5-Be aware of major design details and have skill in representing them graphically.
6-Understand the theory of various colour treatments, colour co-ordination in sketching.
7-Understand the concept of flats, speck sheets, placing of swatches etc.
8-Use the appropriate terminologies of different styles, design cuts etc.

DETAILED CONTENTS

PART I

1. Tounderstandthedifferencebetween normal figureandfashion figure.

2. Eight head and ten head theory with appropriate terminologies.

3. Front view, back view, 3/4 view.

4. Projectwork for above study.(Home Assignmentorclass work).

PART II

1. Workingfrom photos and fashion drawings convertingphotosinto stylized figure.

2. Shapingofthe different parts of human figures-hands,feet, shoes etc.

3. Studying the face and different types.

4. Todraw diriment fashion accessories - hats, gloves,handbags, shoes,earing, neckless etc.

5. Project work from above studies. (Home Assignments)

PART III

1. Designdetails- various types of collars,sleeveparts, gathers, flaxes, drapes etc. .

2. Project work by using inspiration and story line.

3. Collecting pictures of inspiration and filing them.

PART IV

1. Creationoforiginal designs,interpretationoffashion sketches.

2. Final projects for fashion shows.

INSTRUCTIONAL STRATEGY
Since this subject is practice oriented, the teacher should demonstrate practical significance of thevarious areas. Visits to Fashion industries must be carried out

MEANS OF ASSESSMENT
-Model /Pattern Making
-Actual Practical work
-viva-voce

RECOMMENDED BOOKS
-Liberty Fashion Sketch Book, By Jayashree Bhosale Liberty Publication.
-Fashion Rendering by Ranjana Singhal, Om Books Publication.

Websites for Reference:
-www.pinterest.com
-www.masterclass.com

SUGGESTED DISTRIBUTION OF MARKS

Topic No.	Time Allotted (Periods)	Marks Allotted (%)
1	7	30
2	7	30
3	7	20
4	7	20
Total	**28**	**100**

6.4 PROJECT WORK

L	T	P
-	-	12

RATIONALE

Major Project Work aims at developing innovative skills in the students whereby they apply in totality the knowledge and skills gained through the course work in the solution of particular problem or by undertaking a project. In addition, the project work is intended to place students for project oriented practical training in actual work situation for the stipulated period.

LEARNING OUTCOMES

After undergoing the project work, students will be able to:
Apply in totality theknowledgeandskillsgainedthroughthecourse workinthe solutionofparticularproblemorby undertaking a project. In addition,the project work is intended to place the learner for project oriented practical training in actual work situation for the stipulated period with a view to:

- Develop understanding regarding the size andscale of operations and nature of field-work in which students are going to play their role after completing the courses of study
- Develop understanding of subject based knowledge given in the classroom in the context of its application at work places.
- Develop firsthand experience and confidence amongst the students to enable them to use and apply polytechnic/institute based knowledge and skills to solve practical problems related to the world of work.
- Develop abilities like interpersonal skills, communication skills, positive attitudes and values etc.

General Guidelines

The individual students have different aptitudes and strengths.Project work, therefore, should match the strengths of students. For this purpose, students should be asked to identify the type of project work, they would like to execute. The activity of problem identification should begin well in advance (say at the end of second year).Students should be allotted a problem of interest to him/her as a major project work. It is also essential that the faculty of the respective department may have a brainstorming session to identify suitable project assignments for their students.The project assignment can be individual assignment or a group assignment. There should not be more than 3 students if the project work is given to a group. The project work identified in collaboration with industry should be preferred.

This practical training cum project work **should not be considered** as merely conventional industrial training in which students are sent at work places with either minimal or no supervision. This experience is required to be planned in advance and supervised on regular basis by the polytechnic faculty. For the fulfillment of above objectives, polytechnics may establish close linkage with 8-10 relevant organization for providing such an experience to students. It is necessary that each organization is visited well in advance and activities to be performed by students are well defined. The chosen activities should be such that it matches with the curricular interest to students and of

professional value to industrial/ field organizations. Each teacher is expected to supervise and guide 5-6 students.

The projects given to students should be such for which someone is waiting for solution. Some of the suggested project activities are given below:

(a) FASHION DESIGNING and Garment Technology

(b) Demonstration of new techniques for the Fashion Design, Garment Technology, operation of new machinery used in Garment .

(c) Problem concerning to any one of the following:

To run his own setup Garment, jewellery

At the end of the project student will submita written report of his/ their accomplishmentandface a viva voce examination individually.

NOTE:Each student has to take one project individually and one to be shared with a group of four-five students depending upon cost and time involved. There is no binding to take up the above projects as it is only a suggestive list of projects.

A suggestive criterion for assessing student performance by the external (person from industry) and internal (teacher) examiner is given in table below:

Sr. No.	**Performance Criteria**	**Max.** Marks**	**Rating Scale**				
			Excellent	**Very Good**	**Good**	**Fair**	**Poor**
1.	Selection of project assignment	10%	10	8	6	4	2
2.	Planning and execution of considerations	10%	10	8	6	4	2
3.	Quality of performance	20%	20	16	12	8	4
4.	Providing solution of the problems or production of final product	20%	20	16	12	8	4
5.	Sense of responsibility	10%	10	8	6	4	2
6.	Self expression/ communication skills	5%	5	4	3	2	1
7.	Interpersonal skills/human relations	5%	5	4	3	2	1
8.	Report writing skills	10%	10	8	6	4	2
9	Viva voce	10%	10	8	6	4	2
Total marks		**100**	**100**	**80**	**60**	**40**	**20**

The overall grading of the practical training shall be made as per following table.

In order to qualify for the diploma, students must get “Overall Good grade” failing which the students may be given one more chance to improve and re-evaluate before being disqualified and declared “not eligible to receive diploma ”.It is also important to note that the students must get more than six

"goods" or above "good" grade in different performance criteria items in order to get "Overall Good" grade.

	Range of maximum marks	Overall grade
i)	More than 80	**Excellent**
ii)	79 <> 65	Very good
iii)	64 <> 50	Good
iv)	49 <> 40	Fair
v)	Less than 40	Poor

Important Notes

1. **This criteria must be followed by the internal and external examiner and they should see the daily, weekly and monthly reports while awarding marks as per the above criteria.**

2. **The criteria for evaluation of the students have been worked out for 100 maximum marks. The internal and external examiners will evaluate students separately and give marks as per the study and evaluation scheme of examination.**

3. **The external examiner, preferably, a person from industry/organization, who has been associated with the project-oriented professional training of the students, should evaluate the students performance as per the above criteria.**

4. **It is also proposed that two students or two projects which are rated best be given merit certificate at the time of annual day of the institute. It would be better if specific nearby industries are approached for instituting such awards.**

Projectpaper should be given to students well inadvance. The basic theme of the course is design and fabrication of Fashion articles and also to learn processes affecting fashion indirectly viz Printing, Dyeing, Embroidery Embossing and Knitting. The paper should contain two problems from every section of the course Viz Costume design and Fabrication, Dyeing and Printing, Knitting, Embroidery and Jewellery design. The student shall select any three problems at least one from each section. The problems should have renovating use of design, fabrication and machines system and process. The total marks allotted to paper is 100. Break up marks is as given below –

Sessional Exam

1. Apparel Design & Fabrication10+25(10+10+5)
2. Dyeing and Painting 10+25(10+10+5)
3. Knitting,Embroidery & Jewellery 10+20(8+8+4)

The teachers are free to evolve other criteria of assessment, depending upon the type of project work.

It is proposed that the institute may organize an annual exhibition of the project work

09. RESOURCE REQUIREMENT

9.1 PHYSICAL RESOURCES

(A) Space requirement

Norms and standards laid down by All India Council for Technical Education(AICTE) are to 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.

(B) Equipment requirement:

Following Laboratories are required for Diploma Programme in Fashion Designing and Garment Technology

- Communication Laboratory
- Textile science lab
- Draftingand Pattern Making Shop
- Fabrication, Embroidery and Knitwear Technology Shop
- Computer &CADCentre
- Environmental Engineering Lab

EQUIPMENT REQUIREMENT

Sr. No.	Description	Qty	Total Price (Rs)
	COMMUNICATION LABORATORY		
1	Stools	40	10,000
2	Display Board/Screen	2	6,000
3	Sound recording and playing system	1	6,000
4	Audio cassettes	60	2,000
5	Overhead Projector	1	5,000
6	Transparencies slides	100	500
7	TV, VCR and camera for video recording	1 each	20,000
8	English spoken course	1	2,000
9	A Quiz room equipped with two-way audio system, back projection system and slide projector	1	30,000
10	Miscellaneous	LS	1,500

	TEXTILE SCIENCE LAB		
1	Dye Bath For Experimental Work	10	5,000
2	Spray, Block and Screen Systems of Printing	10 Set	10,000
6	Microscope to visualize various type of fibers	2	70,000
7	GSM Cutter/ Crock Meter	2	14,000
8	Digital Thickness gauge	2	8,000
9	Stainless Steel Bhagona 15 Litre	4	8,000
10	Stainless Steel Balti 10 Litre	4	5,000
11	2000 Watt Induction	2	5,000
12	Counting Glass to count EPI, PPI	4	4,000
13	Plastic Molded Stool with Good Strength	80	70,000

	Drafting and Pattern Making Shop		
1	Drafting Tables 1 X 1.5 Meters	30	3,00,000
2	**Plastic Molded Stool with Good Strength**	**80**	**70,000**
3	Thimble	60	6,000
4	Pressing Board	15	15,000
5	Dressing Mirror 4.5' X 1.5' (with frame & stand)	10	10,000
6	Squares Art, Plastic	30	5,000
7	Hangers General	12 Doz	5,000
8	Hangers Wooden	30	4,000
9	L Squares 12" X 24" (Plastic, Celluloid)	30	10,000
10	Long Scale of 1 meter	30	3,000
11	Seam Openers	30	3,000
12	Shapers for upper and lower garments	60	10,000

13	Pressing Table different shapes & plain	30	10,000
14	Spray Gun (For removal of stains)	10	10,000
15	Electric Cutter	4	32,000
16	Electric Iron Press (automatic)	10	15,000
17	Dummies (Ladies, Gents & Children) Upper and Lower Sizes	30	3,00,000
18	Iron Press heavy	4	4,000
19	Steam press	4	10,000
20	Scissors 9", 10",11" (20+20+20)	60	10,000
21	Button hole scissors 8	4	600
22	Trimming Scissors 8"	4	500
23	Picking Scissors 10"	4	500
24	Display Board 6' x 4'	10	15,000
25	Pico machine	4	20,000
26	Interlocking Machine	4	20,000
27	Straight Knife Machine	4	1.20,000
28	Round Knife Machine	4	1.00,000
30	MiscEquipments. (viz Measuring Tapes, Lump Tracing Wheels etc.)	LS	25,000

ENVIRONMENT ENGINEERING LABORATORY

1.	pH Meter	01	500
2.	Turbidity Meter	01	5000
3.	Oven with Temperature Controller and Forced Air Circulation Type	01	20000
4.	B.O.D. Incubator	01	25000
5.	Water Analysis Kit	01	5000
6.	High Volume Sampler	01	40000
7.	Electrical Balance for weighing upto 1/10 of milligram (capacity)	01	1000

BIBLIOGRAPHY OF FASHION DESIGNING & GARMENT TECHNOLOGY BOOKS

	NAME OF BOOK	AUTHOR	PUBLISHER
1.	DRAWING & DESIGNING MENS WEAR	PATRIC JOHN IRELAND	B.T. BOSTFORD LTD LANDON, FIZHARELING STREET.
2.	FASHION EXTRAS:	MARSHALL CAVENDISH	MARSHALL CAVENDISH BOOKS LTD. LONDON STREET.
3.	JASMINE ARTS	DESIGNER SHARAD PD.	98-GHADIOL GULLY M.J.MARKET,BOMBAY
4.	THE BOOK OF LOOKS	LORRAINE JOHNSON	MICHOEL JOSEPH LTD. 44 BEDFORD SQUARE,

OW

			London
5.	Lady Fashion	Thiama Printed in Japan Distributor E.D. Galgohia& Sons	

DRAFTING & PATTERN MAKING

1.	Encyclopedia of Dress Making.	Marshall Cavendish	Marshall Cavendish Books Ltd. 58 Old Cambton Street.
2.	Basic Fashion Wordrobe	Pamelalee	Singer Co,.(U.K.) Ltd.
3.	Dress Making	Ronkelty Terry Evon	Himalayan Publishing Group LTd. Landon

COSTUME FABRICATION

1.	Cross Stitch Design	OndoriOndori (Collection	Japan Publication
2.	A mannual of Children Clothing	Savita Pandit	Orient Longmans Ltd., Bombay
3.	Newlook	Darshan	Jasmine, 98-ghadial Gully, M.J. Market Bombay
4.	Embroidery	Meena Srivastava	Hind Pocket Books
5.	Hobby Craft Series	Collective Matter	E.D.Galgohia& SMS 17-B Cannaught Place New Delhi
6.	Soft Toys	Sheela Nair	Hind Pocket Books
7.	Tiny	Mukesh Mistry (Photos) Vinay Chikedikar	Beau & Belle Creation
8.	Children's Clothes	Designer	Australian Consoli-

	ROBBYLEE	DATED PRESS	
		PHELAN	
9.	PATCH WORK	BY THE EDITOR RAY RAMSAY	BOOK DIVISION
10.	EMBROIDERY & CROSS STITCH	ONDERI	PRINTED IN JAPAN E.D. GALGOHIA& SONS
11.	LOVELY CROSS STITCH	YALMAKAMURA	NIHON VOGUE
12.	NEEDLE POINT LETTERS	DONNA REDY	DUBLEDERY COMPANY
13.	PETTES TOILETTES.		PUBLICATIONS
	HUNDIALAPARTADE		
14.	HUNDRED DESIGNS PIN & THREAD	RAYMOND	ASSOCIATED TERRITORIES ACTOPUS BOOK
15.	EMBRIODERY FOR ENGINEERS	ONDERI	ONDERI
16.	EMBRIODERY PATTERN	ONDERI	ONDERI
17.	WOMEN'S FASHION	FASHION	LANDERIS PRESS
	DORIWORK SPECIAL		
18.	VEEMA	VIJAY TRADING	DILKUSH JOSHI
	BOMBAY		
19.	VEEMA CREATIONS	VIJAY TRADING	DILKUSH JOSHI BOMBAY
20.	KID SPECIAL FASHION	VERIETY BOOK	VARIERY BOOK, N. DELHI
21.	WOMEN'S FASHION	VEEMA& CREATION	PIONEER BOOKS, BOMBAY

BUSINESS MANAGEMENT

1. Marketing Management Philip Kotler
(Business Administration)

2. Mass Communication and Journalism in India D.S.Mehtab Allied Publisher
(Business Adminstration)

3. Advertising James S. Narris Meinemannl London

4. Theory and Practice of Business Correspondence B. Singh H.P.J. kapoor
(Communication Skill)

5. Foundation of Advertising Theory Chuna Walla Sethia Himalaya Publisher House
(Business Administration)

6. Management Made Simple Frank Jefkins -do-

7. Advertising Made Simple G.K. Puri I.M.S. Publication

8. Public relation for all G.K. Puri Rupa and Cen.
(Business Administration)

9. Marketing research Boyd WartfallRicherd Press
(Business Administraion)

10. Public Relation for all G.K.Puri Gopal K. Puri
(Business Administration)

11. Hand Book of Public D.S. Mehta Allied Publisher
(Business Administration)

12. Advertising Management David A.A. Prentice hall
(Business Administration) Aaker of India.

COMMUNICATION TECHNIQUE

1.	A Practical English Grammar ICs	A.J. Thomas	Exford University Press
2.	A Practical English Grammar II (CS)	A.J. Thomas	-do-
3.	High School English and Composition	Wren AndDethichand and Co Martine	
4.	Effective Communication (CS)	E.C. Eyre	Rupma and Co.
5.	30 Days better English (CS)	Dr. Wilfered Fremk	Pocket Book
6.	30 Days better English (More powrful) (CS)	Norman Lewis	Junior Publication

MAGAZINES FOR REFERENCE

1. Elle
2. Vogue
3. Cosmopolitin
4. Simplicity
5. Cladrag
6. Glamour
7. Discover India
8. Lady Fashion
9. Flair
10. Trends
11. Teenager
12. Book of Look
13. Ancient Indian costomer (History of Fahsion)

    Author Rashon Alkaz. Pres

    Publisher : Rajinder Paul Press
    New Delhi.

14. Visual Designs : (Basic Design)
15. Classic India Textiles
16. Classic India Handicrafts

10. **EVALUATIONSTRATEGY**

10.1 INTRODUCTION

Evaluation plays an important role in the teaching-learning process.The major objective of any teaching-learningendeavoristoensurethequalityoftheproductwhich canbeaccessedthroughlearner'sevaluation.

The purpose of student evaluation is to determine the extent to which the general and the specificobjectives of curriculum have been achieved.Student evaluation is also important from the pointof view of ascertaining the quality of instructional processes and to get feedback for curriculumimprovement.It helps the teachers in determining the level of appropriateness of teachingexperiences provided to learners to meet their individual and professional needs.Evaluation alsohelpsindiagnosinglearningdifficultiesofthestudents. Evaluationisoftwotypes:FormativeandSummative (InternalandExternalEvaluation)

FormativeEvaluation

It is an on-going evaluation process. Its purpose is to provide continuous and comprehensivefeedbacktostudentsandteachersconcerningteaching-learningprocess.Itprovidescorrectivestepstobetakentoaccountforcurricularaswellas co-curricularaspects.

SummativeEvaluation

It is carried out at the end of a unit of instruction like topic, subject, semester or year.The mainpurpose of summative evaluation is to measure achievement for assigning course grades,certification of students and ascertaining accountability of instructional process. The studentevaluationhastobedoneinacomprehensiveandsystematicmannersinceanymistakeor lacunaislikelytoaffectthefutureofstudents.

InthepresenteducationalscenarioinIndia,wheresummativeevaluationplaysanimportantroleineducationalprocess,thereisaneedtoimprovethestandardofsummativeevaluationwithaviewto bring validity and reliability in the end-term examination system for achieving objectivity andefficiencyinevaluation.

10.2 STUDENTS'EVALUATIONAREAS

Thestudentevaluationiscarriedoutforthefollowingareas:

Theory
PracticalWork(Laboratory,Workshop,FieldExercises)Proje
ctWork

ProfessionalIndustrialTraining

A. Theory

Evaluation in theory aims at assessing students' understanding of concepts, principles andprocedures related to a course/subject, and their ability to apply learnt principles and solveproblems. Theformativeevaluationfortheorysubjectsmaybecausedthroughsessional/class-tests, home-assignments, tutorial-work, seminars, and group discussions etc. For end-termevaluationoftheory,thequestionpapermaycompriseofthreesections.

Section-I

It should contain objective type items e.g. multiple choice, matching and completion type. Total weightage to Section-1 should be of the order of 20 percent of the total marks and no choice should be given in this section.The objectivetype items should be used to evaluate students' performance in knowledge, comprehension and at the most applicationdomains only.

Section-II

It should contain short answer/completion items.The weightage to this section should be of theorderof40 percent ofthetotalmarks.Again,nochoiceshouldbe given insection-II

Section-III

It maycontaintwo tothree essaytypequestions. Totalweightage tothissectionshouldbe oftheorder of 40 percent of the total marks.Some built-in, internal choice of about 50 percent of thequestionsset,canbegiveninthissection

TableII :SuggestedWeightagetobegiventodifferentabilitylevels

Abilities	Weightagetobeassigned
Knowledge	10-30percent
Comprehension	40-60percent
Application	20-30percent
Higherthanapplicationi.e.Analysis, SynthesisandEvaluation	Upto10 percent

B. PracticalWork

Evaluation of students performance in practical work (Laboratory experiments, Workshoppracticals/field exercises) aims at assessing students ability to apply or practice learnt concepts,principlesandprocedures, manipulativeskills,

abilitytoobserveandrecord,abilitytointerpretanddraw conclusions and work related attitudes.Formative and summative evaluation may compriseof weightages to performance on task, quality of product, general behaviour and it should befollowedbyviva-voce.

C. ProjectWork

The purpose of evaluation of project work is to assess students ability to apply, in an integratedmanner, learnt knowledge and skills in solving real life problems, manipulative skills, ability toobserve, record, creativity and communication skills.The formative and summative evaluationmay comprise of weightage to nature of project, quality of product, quality of report and quality ofpresentationfollowedby viva-voce.

D. ProfessionalIndustrialTraining

Evaluationofprofessionalindustrialtrainingreportandviva-voce/presentationaimsatassessingstudents' understanding of materials, industrial processes, practices in the industry/field and theirabilitytoengageinactivitiesrelatedtoproblem-solvingin industrialsettingaswellas understandingofapplicationoflearntknowledgeandskillsinreallifesituation. Theformativeand summative evaluation may comprise of weightages to performance in testing, generalbehaviour,qualityofreportandpresentationduringviva-voce.

10.3 ASPECTS OFQUESTIONPAPERSETTING

Validity and reliability are the most important considerations in the selection and construction ofevaluation procedures.First and foremost are the evaluation tools to measure the specificoutcomesforwhichtheyare intendedto measure.Nextinimportance isreliability,andfollowingthat isa hostofpractical featuresthatcanbeclassifiedunderthe headingofusability.

For weightage of marks assigned to formative (internal) and summative (external) evaluation andduration of evaluation has been given in the study and evaluation scheme of the curriculumdocument.Teachers/Paper-setters/ExaminersmayuseManualforStudents'Evaluationdevelopedby IRDT U.P. Kanpur to bringobjectivity in the evaluation system. The working group found it very difficult to detail outprecisely the contents of subject on languages and therefore teachers may send guidelines torespectiveexaminersforpapersettingtomaintainobjectivityin evaluation.

11. RECOMMENDATIONSFOREFFECTIVECURRICULUMIMPLEMENTATION

This curriculum document is a Plan of Action (POA) and has been prepared based on exhaustiveexerciseofcurriculumplanninganddesign.Therepresentativesamplecomprisingselected seniorpersonnel (lecturers and HODs) from various institutions and experts from industry/field havebeeninvolvedincurriculumdesignprocess.

The document so prepared is now ready for its implementation.It is the faculty of polytechnicswho have to play a vital role in planning instructional experiences for the courses in four differentenvironmentsviz.class-room,laboratory,libraryandfieldandexecutetheminrightperspective.It is emphasized that a proper mix of different teaching methods in all these places of instructiononly can bring the changes in stipulated students behaviour as in the curriculum document.It isimportant for the teachers to understand curriculum document holistically and further be aware ofintricacies of teaching-learning process (T-L) for achieving curriculum objectives.Given beloware certain suggestions which may help the teachers in planning and designing learningexperiences effectively.These are indicative in nature and teachers using their creativity canfurther develop/refine them.The designers of the programme suggest every course teacher to readthemcarefully,comprehendandstartusingthem.

(A) BroadSuggestions:

1. Curriculum implementation takes place at programme, course and class-room levelrespectivelyandsynchronizationamongthemisrequiredforitssuccess.Thefirststep towardsachievingsynchronizationistoreadcurriculumdocumentholisticallyandunderstand itsrationaleandphilosophy.

2. State Board of Technical Education (BTE) may make the academic planavailable to all polytechnics well in advance.The Principals have a great role to play in itsdissemination and, percolation upto grass-root level.Polytechnics in turn are supposed to prepareinstitutionalacademicplanbyreferringstatelevelBTEplan.

3. HOD of every Programme Department along with HODs and in charges of otherdepartmentsviz. English, Maths,Physics, Chemistryetc.arerequiredtoprepareacademicplanatdepartmentlevelreferringinstitutionalacadem ic plan.

4. Alllecturers/Seniorlecturersarerequiredtopreparecourselevelandclasslevel lessonplansreferringdepartmentalacademicplan.

(B) CourseLevelSuggestions

Teachersareeducationalmanagersatclassroomlevelandtheir successinachievingcourse level objectives lies in using course plan and their judicious execution which is veryimportantforthe success ofprogrammebyachievingitsobjectives.

Polytechnic teachers are required to plan various instructional experiences viz. theorylecture, expert lectures, lab/workshop practicals, guided library exercises, field visits, study tours,campsetc.Inaddition,theyhavetocarryout progressiveassessment oftheory,assignments, library,practicalsandfieldexperiences.Teachersarealsorequiredtodoalltheseactivitieswithina stipulated period of 16 weeks which is made available to them in the academic plan at BTElevel. With the amount of time to their credit, it is essential for them to use it judiciously byplanningallabove activitiesproperlyandensure executionofthe planeffectively.

Following is the gist of suggestions for subject teachers to carry out T-L processeffectively:

1. Teachers are required to prepare a course plan, taking into account departmental academicplan, number of weeks available, course to be taught, different learning experiences required to bedevelopedetc.

2. Teachersarerequiredtopreparelessonplanforeverytheoryclass.This planmaycomprise of content to be covered, learning material (transparencies, VCDs, Models etc.) forexecutionofalessonplan.Theymayfollowstepsforpreparinglessonplane.g. drawingattention,state instructional objectives, help in recalling pre-requisite knowledge, deliver planned subjectcontent,checkdesiredlearningoutcome andreinforcelearningetc.

3. Teachersarerequiredtoplanforexpertlecturesfromfield/industry.Necessarystepsaretoplan in advance, identify field experts, make correspondence to invite them, take necessarybudgetaryapprovaletc.

4. Teachers are required to plan for guided library exercises by identification of coursespecific experience requirement, setting time, assessment, etc. The tutorial, assignment andseminarcanbe thoughtofasterminaloutcomeoflibraryexperiences.

5. Concept and content-based field visits with appropriate releases (day-block) may beplannedandexecutedforsuchcontentofcoursewhichotherwiseisabstractinnatureandnootherrequisite resourcesare readilyavailableininstitutetoimpartthemeffectively.

6. There is a dire need for planning practical experiences in right perspective.These slots in acourse are the avenues to use problem-based learning/activity learning/ experiential learningapproach effectively.The development of lab instruction sheets for the course is a good beginningtoprovidelabexperienceseffectively.

7. Planning of progressive assessment encompasses periodical assessment in semester,preparationofproperqualityquestionpaper,assessment ofanswersheetsimmediatelyandgivingconstructive explicit feedback to every student.It has to be planned properly; otherwise verypurposeofthesameislost.

8. The co-curricular activities like camp, social gathering, study tour, hobby club etc. may beusedto developgenericskillsliketaskmanagement,problemsolving,managingself,collaboratingwithothers etc.

9. Whereeverpossible,itisessentialtouseactivitybasedlearningrather than relyingondeliverybasedconventionalteachingallthetime.

10. While imparting instructions, emphasis may be laid on the development ofcognitive,psychomotor,reactiveandinteractiveskillsinthestudents.

11. Teachers maytakeworkingdrawingsfromtheindustry/fieldandprovidepracticesinreadingthesedrawings.

12. Considerable emphasis should be laid in discipline specific contracting and repair andmaintenance ofmachines,toolsandinstallations.

13. Teachersmaytake initiative inestablishingliaisonwithindustriesandfieldorganizationsforimpartingfieldexperiencestotheirstudents.

14. CasestudiesandassignmentsmaybegiventostudentsforunderstandingofEnterpriseResource Management(ERM).

15. Studentsbemadeawareaboutissuesrelatedtoecologyandenvironment,safety, concernforwastageofenergyandotherresources etc.

16. Studentsmaybegivenrelevantandwellthoughtoutminorandmajorprojectassignments,which are purposeful and develop practical skills. This will help students in developing creativityandconfidencefortheirgainfulemployment(wage andself).

17. A Project bank may be developed by the concerned department of the polytechnics inconsultationwithrelatedIndustry,ResearchInstitutesandotherrelevantfieldorganizations inthestate.

List of Participants:

The following experts have participated in workshop for Developing the Curricula Structure and Contents of Three-year (Six Semester) Diploma Programme in FASHION DESIGNING AND GARMENT TECHNOLOGY for UP State workshop held on 28/10/2021, 11/01/2022 and 16/01/2023 at IRDT Kanpur :

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