Regulation 2023

Program Structure

Diploma in Garment Technology

Program Outcomes (PO's)

POs are statements that describe what students are expected to know and be able to do upon graduating from the program. These relate to the skills, knowledge, analytical ability, attitude, and behavior that students acquire through the program.

The POs essentially indicate what the students can do from subject-wise knowledge acquired by them during the program. As such, POs define the professional profile of an engineering diploma graduate.

NBA has defined the following seven POs for an Engineering diploma graduate:

PO1: Basic and Discipline-specific knowledge: Apply knowledge of basic mathematics, science and engineering fundamentals and an engineering specialization to solve the engineering problems.

PO2: Problem analysis: Identify and analyze well-defined engineering problems using codified standard methods.

PO3: Design/ development of solutions: Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.

PO4: Engineering Tools, Experimentation, and Testing: Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.

PO5: Engineering practices for society, sustainability and environment: Apply appropriate technology in the context of society, sustainability, environment and ethical practices.

PO6: Project Management: Use engineering management principles individually, as a team member or as a leader to manage projects and effectively communicate about well-defined engineering activities.

PO7: Life-long learning: Ability to analyse individual needs and engage in updating in the context of technological changes.

Credit Distribution

Semester	No of Courses	Periods	Credits
Semester I	8	640	20
Semester II	9	640	20
Semester III	8	640	21
Semester IV	7	640	19
Semester V	8	635#	22
Semester VI	3	660	18
		Total	**120**

Industrial Training during summer vacation for Two Weeks has to be completed to earn the required two credits.

GOVERNMENT OF TAMIL NADU
DEPARTMENT OF TECHNICAL EDUCATION
DIPLOMA IN ENGINEERING & TECHNOLOGY - REGULATION 2023
1066 DIPLOMA IN GARMENT TECHNOLOGY (FT)

III Semester								
#	**Course Category**	**Course Type**	**Code**	**Course Title**	**L-T-P**	**Period**	**Credit**	**End**
1	Program Core	Theory	1066233110	Yarn and Fabric Manufacture	4-0-0	60	4	Theory
2	Program Core	Theory	1066233210	Fashion Designing	3-0-0	45	3	Theory
3	Program Core	Theory	1066233310	Apparel Designing	3-0-0	45	3	Theory
4	Program Core	Practical	1066233420	Surface ornamentation	0-0-6	90	3	Practical
5	Program Core	Practical	1066233520	Fashion Illustration	0-0-4	60	2	Practical
6	Program Core	Practical	1066233620	Basic Garment Construction	0-0-6	90	3	Practical
7	Open Elective	Advanced Skill Certification	1066233760	Advanced Skills Certification - 3	1-0-2	60	2	NA
8	Humanities & Social	Integrated Learning Experience	1066233850	Growth Lab	-	30	0	-
9	Audit Course	Integrated Learning Experience	1066233951	Induction Program - II	-	16	0	-
10	Audit Course	Integrated Learning Experience	1066233952	I&E/ Club Activity/ Community	-	16	0	-
11	Audit Course	Integrated Learning Experience	1066233953	Shop floor Immersion	-	8	0	-
12	Audit Course	Integrated Learning Experience	1066233954	Student-Led Initiative	-	22	0	-
13	Audit Course	Integrated Learning Experience	1066233955	Emerging Technology Seminars	-	8	0	-
14	Audit Course	Integrated Learning Experience	1066233956	Health & Wellness	0-0-2	30	1	NA
					Test & Revision	45		NA
					Library	15		
					Total	**640**	**21**	

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IV Semester								
#	**Course Category**	**Course Type**	**Code**	**Course Title**	**L-T-P**	**Period**	**Credit**	**End**
1	Program Core	Theory	1066234110	Apparel Quality Control	3-0-0	45	3	Theory
2	Program Core	Theory	1066234210	Garment Machinery and Equipment	3-0-0	45	3	Theory
3	Program Core	Practical	1066234320	Children Garment Construction	0-0-6	90	3	Practical
4	Program Core	Practical	1066234420	Garment Construction of Boys & Girls	0-0-6	90	3	Practical
5	Program Core	Practical	1066234520	Home Textiles	0-0-4	60	2	Practical
6	Program Core	Practicum	1066234640	Garment Pattern Drafting I	1-0-4	75	3	Practical
7	Open Elective	Advanced Skill Certification	1066234760	Advanced Skills Certification - 4	1-0-2	60	2	NA
8	Audit Course	Integrated Learning Experience	1066234852	I&E/ Club Activity/ Community	-	30	0	-
9	Audit Course	Integrated Learning Experience	1066234853	Shop floor Immersion	-	8	0	-
10	Audit Course	Integrated Learning Experience	1066234854	Student-Led Initiative	-	24	0	-
11	Audit Course	Integrated Learning Experience	1066234855	Emerging Technology Seminars	-	8	0	-
12	Audit Course	Integrated Learning Experience	1066234856	Health & Wellness	-	30	0	-
13	Audit Course	Integrated Learning Experience	1066234857	Special Interest Groups *(Placement*	-	30	0	-
					Test & Revisions	30		NA
					Library	15		
					Total	**640**	**19**	

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V Semester								
#	**Course Category**	**Course Type**	**Code**	**Course Title**	**L-T-P**	**Period**	**Credit**	**End**
1	Program Core	Theory	1066235110	Apparel Merchandising	4-0-0	60	4	Theory
2	Program Core	Theory	1066235210	Apparel Industrial Engineering	4-0-0	60	4	Theory
3	Program Core	Practical	1066235320	Garment Pattern Drafting – II	0-0-4	60	2	Practical
4	Open Elective	Practical		Elective 1	0-0-6	90	3	Practical
5	Open Elective	Practicum		Elective 2	1-0-4	75	3	Practical
6	Humanities & Social	Practicum	1066235654	Innovation & Startup	1-0-2	45	2	Project
7	Internship	Internship	1066235773	Industrial Training*	-	-	2	Project
8	Open Elective	Advanced Skill Certification	1066235860	Advanced Skills Certification - 5	1-0-2	60	2	NA
9	Audit Course	Integrated Learning Experience	1066235951	Induction program III	-	40	0	-
10	Audit Course	Integrated Learning Experience	1066235954	Student-Led Initiative	-	30	0	-
11	Audit Course	Integrated Learning Experience	1066235956	Health & Wellness	-	30	0	-
12	Audit Course	Integrated Learning Experience	1066235957	Special Interest Groups (Placement	-	40	0	-
					Test & Revisions	30		
					Library	15		
					Total	**635**	**22**	

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Elective 1								
#	**Course Category**	**Course Type**	**Code**	**Course Title**	**L-T-P**	**Period**	**Credit**	**End Exam**
1	Open Elective	Practical	1066235421	Advanced Garment Construction	0-0-6	90	3	Practical
2	Open Elective	Practical	1066235422	Handicrafts	0-0-6	90	3	Practical
3	Open Elective	Practical	1066235423	Garment CAD	0-0-6	90	3	Practical

Elective 2								
#	**Course Category**	**Course Type**	**Code**	**Course Title**	**L-T-P**	**Period**	**Credit**	**End Exam**
	Open Elective	Practicum	1066235541	Chemical Processing and Testing of Textiles	1-0-4	75	3	Practical
	Open Elective	Practicum	1066235542	Garment Laundering and Maintenance	1-0-4	75	3	Practical
	Open Elective	Practicum	1066235543	Indian and Western Costume	1-0-4	75	3	Practical

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VI Semester								
#	**Course Category**	**Course Type**	**Code**	**Course Title**	**L-T-P**	**Period**	**Credit**	**End Exam**
1	Open Elective	Theory		Elective 3 (Pathway)	3-0-0	45	3	Theory
2	Open Elective	Practicum		Elective 4 (Specialization)	1-0-4	75	3	Practical
3	Industrial Training / Project	Project/Internship		In-house Project / Internship / Fellowship	-	540	12	Project
					Total	**660**	**18**	

3	Industrial Training / Project	Project/Internship	1066236351	Internship	-	540	12	Project
3	Industrial Training / Project	Project/Internship	1066236353	Fellowship	-	540	12	Project
3	Industrial Training / Project	Project/Internship	1066236374	In-house Project	-	540	12	Project

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Elective 3 (Pathway)								
#	**Course Category**	**Course Type**	**Code**	**Course Title**	**L-T-P**	**Period**	**Credit**	**End Exam**
1	Open Elective Higher Education	Theory	6000236111	Advanced Engineering Mathematics	3-0-0	45	3	Theory
2	Open Elective Technocrats	Theory	6000236112	Entrepreneurship	3-0-0	45	3	Theory
3	Open Elective	Theory	6000236113	Project Management	3-0-0	45	3	Theory
4	Technocrats	Theory	6000236114	Finance Fundamentals	3-0-0	45	3	Theory
5	Open Elective Technocrats	Theory	1066236115	Garment Industry Management	3-0-0	45	3	Theory
6	Open Elective Technocrats	Theory		Online Elective course **$**				

$ Online courses with the same credit available in AICTE, NPTEL and reputed Institutions with the proper evaluation system and certification can be considered after proper approval from DOTE Exam Section.

Elective 4 (Specialization)								
#	**Course Category**	**Course Type**	**Code**	**Course Title**	**L-T-P**	**Period**	**Credit**	**End Exam**
1	Open Elective	Practicum	1066236241	Fashion Draping	2-0-2	60	3	Practical
2	Open Elective	Practicum	1066236242	Knitwear Technology	2-0-2	60	3	Practical
3	Open Elective	Practicum	1066236243	Pattern Grading and Alteration	2-0-2	60	3	Practical

DIRECTORATE OF TECHNICAL EDUCATION, CHENNAI–600025
REGULATION 2023

III SEMESTER

1066233110	YARN AND FABRIC MANUFACTURE	L	T	P	C
THEORY		4	0	0	4

Introduction

To understand about various preparatory processes in spinning like ginning, mixing, blow room, carding, drawing and combing. The students will be taught about ring spinning and post spinning. The students will study the definition and uses of different types of Fancy Yarns.

Course Objectives

The objective of this course is to enable the student to

1. To study the objectives of Blow room, Carding, Drawing, Combing and Ring Frame
2. Understand about Modern Spinning systems.
3. To study the objectives and details of Weaving preparatory process & Woven fabric formation.
4. To study the Woven & Knitted fabric structures.
5. To study about the Non-woven and special fabrics.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Indentify and analyze Textile Fibres

CO2: Describe about Spinning Process

CO3: Demonstrate the concepts of Weaving Process

CO4: Analyze the Fabric

CO5: Explain about Non-woven Fabrics

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2	2		3
CO2	3	2	2	2		2	3
CO3	3	2	2		2		3
CO4	3	2	2	2		2	3
CO5	3	2	2		2		3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066233110	YARN AND FABRIC MANUFACTURE	L	T	P	C
THEORY		4	0	0	4

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Written test (Two units)	Written test (Another Two units)	Quiz MCQ (Online / Offline)	Model Examination	Written Examination
Duration	2 Periods	2 Periods	1 Hour	3 Hours	3 Hours
Exam Marks	50	50	60	100	100
Converted to	15	15	5	20	60
Marks	15		5	20	60
Tentative Schedule	6th Week	12th Week	13-14th Week	16th Week	

CA1 and CA2: Assessment written test should be conducted for 50 Marks for two units. The marks scored will be converted to 15 Marks. Best of one will be considered for the internal assessment of 15 Marks.

CA1and CA2, Assessment test should be conducted for two units as below.

PART A: (5 X 10 Marks = 50 Marks).

1066233110	YARN AND FABRIC MANUFACTURE	L	T	P	C
THEORY		4	0	0	4

Eight questions will be asked; students should write Five questions. Each unit Four questions can be asked. Each question may have subdivisions. Maximum two subdivisions shall be permitted.

CA3: 60 MCQ can be asked by covering the entire portion. It may be conducted by Online / Offline. The marks scored should be converted to 5 marks for the internal assessment.

CA4: Model examination should be conducted as per the end semester question pattern. The marks should be converted to 20 marks for the internal assessment.

Question Pattern:

Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

Question Pattern - Model Examination and End Semester Examination - Theory Exam

Duration: 3 HOURS **Max .Marks: 100**

PART- A (5 X 20 Marks = 100 Marks)

Note: Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Instruction to the Question Setters

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

1066233110	YARN AND FABRIC MANUFACTURE	L	T	P	C
THEORY		4	0	0	4

Unit I	TEXTILE FIBRE	
Important properties of an ideal Textile Fibre - Identification of Textile Fibres - Burning test, Solvent test and Microscopic appearance (Cotton, Silk, Wool, Polyester, Nylon and Acrylic). Manmade fibre manufacturing techniques – Wet spinning, Dry spinning and Melt spinning with example Importance of Spun yarn, Mono filament, Multi filament and Texturised yarn.		15
Unit II	**SPINNING PROCESS**	
Objects of Ginning, Mixing, Blending, Blow room, Carding, Drawing, Combing, Roving and Ring spinning. Properties of carded yarn and combed yarn. Types of twist – S & Z Twist. Modern spinning – Open end, Friction and Compact spinning (Principle only). Doubling – Objectives and principles of doubling. Fancy yarn - Slub yarn, Core yarn, Spiral yarn, Elastomeric yarn and Mélange yarn (Definition only).		15
Unit III	**WEAVING AND KNITTING PROCESS**	
Sequence of preparatory process and its objectives – Objectives of drawing-in and Denting – Primary, Secondary and Auxiliary motion of loom - Types of loom – Passage of material in plain loom - Advantages of automatic looms – Weft insertion techniques in shuttle-less looms. Knitting – Definition – Important terms in knitting (Wales, Course, Texture, Face loop and Back loop) – knitting elements (Needle, Sinker and cam) - Passage of material in plain circular knitting machine.		15
Unit IV	**FABRIC STRUCTURE**	
Woven Structures: Definition of Design, Draft, Peg plan – Design, Draft & Peg plan for Plain weave – 4x4 Matt weave – 2/1, 3/1 Twill weave – 5 end Satin weave and Sateen weave. Knit Structures: Knit, Tuck and Miss Stitches – Drawing of Graphical and Needle (Diagrammatic) notation of single jersey Plain, Purl, Rib & Interlock.		15

Unit V	NON WOVEN FABRICS	
Non-Woven fabrics – definition - uses - classification of Non Woven Fabrics. Web Formation Techniques – Staple Fibre Webs – Wet laid webs, Dry laid webs, Parallel, Cross and Random laid webs – Continuous Filament webs – Spun laid webs and Melt blown webs. Non Woven Fabric Formations Techniques – Adhesive bonding, Thermal Bonding, Needle punching and bonding of spun laid webs.		18
TOTAL HOURS		**60**

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Reference

1. V A Shenai - “Technology of Textile Processing”. Sevak publications, Bombay – 2007
2. J Gordoncook – Textile fibre, Woodhead Publishing Ltd. Cambridge, England – 2008
3. S P Mishra – Fibre Science and Technology - New age International (p) Ltd Daryaganj, New Delhi-110002, 2005
4. Wymne, A., The Motivate Textile Series, Macmillan Publishers Limited, 2005
5. P W Moncrief – Manmade fibre, Butterworth, London – 2006
6. Principles of weaving R Marks ATC Robinson The Textile Institute, Manchester, UK 2006
7. The Motivate Series Andrea Wynne MacMillan Education Ltd, London and Basingstoke. 2007
8. Cotton Yarn Weaving Kanungo R.N Textile Association India, Ahmedabad 2010

1066233210	FASHION DESIGNING	L	T	P	C
THEORY		3	0	0	3

Introduction

Garments are the value added products of Textiles, which improves the economy of our country. Fashion designing is part of the subject which enhances the value of the products further. The fashion designing subject provides in depth knowledge on sketching, drawing, colouring, creation of styles, illusions and fashion industry work nature.

Course Objectives

The objective of this course is to enable the student to

1. Understand the elements and principles of fashion design
2. Study the tools & equipment used in sketching.
3. Learn about the colour theory.
4. Learn about the colour scheme.
5. Understand the procedure for making proper color schemes.
6. Know how to prepare different kinds of board preparation.
7. Study about various patterns and to develop designs.
8. Analyze wardrobe planning & lifestyle.
9. Develop designs for various seasons.
10. Understand the systems of fashion industry.
11. Learn steps involved in fashion forecasting.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Explain about the Basics of Fashion Industry

CO2: Describe about Elements and Principles of design

CO3: Apply Colour aspects on design

CO4: Create various design

CO5: Plan Wardrobe different for segments of people

1066233210	FASHION DESIGNING	L	T	P	C
THEORY		3	0	0	3

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2	2		3
CO2	3	2	2	2		2	3
CO3	3	2	2		2		3
CO4	3	2	2	2		2	3
CO5	3	2	2		2		3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability-based.

1066233210	FASHION DESIGNING	L	T	P	C
THEORY		3	0	0	3

Assessment Methodology

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Written test (Two units)	Written test (Another Two units)	Quiz MCQ (Online / Offline)	Model Examination	Written Examination
Duration	2 Periods	2 Periods	1 Hour	3 Hours	3 Hours
Exam Marks	50	50	60	100	100
Converted to	15	15	5	20	60
Marks	15		5	20	60
Tentative Schedule	6th Week	12th Week	13-14th Week	16th Week	

CA1 and CA2: Assessment written test should be conducted for 50 Marks for two units. The marks scored will be converted to 15 Marks. Best of one will be considered for the internal assessment of 15 Marks.

CA1and CA2, Assessment test should be conducted for two units as below.

PART A: (5 X 10 Marks = 50 Marks).

Eight questions will be asked; students should write Five questions. Each unit Four questions can be asked. Each question may have subdivisions. Maximum two subdivisions shall be permitted.

CA3: 60 MCQ can be asked by covering the entire portion. It may be conducted by Online / Offline. The marks scored should be converted to 5 marks for the internal assessment.

CA4: Model examination should be conducted as per the end semester question pattern. The marks should be converted to 20 marks for the internal assessment.

1066233210	FASHION DESIGNING	L	T	P	C
THEORY		3	0	0	3

Question Pattern:

Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

Question Pattern - Model Examination and End Semester Examination - Theory Exam

Duration: 3 HOURS **Max .Marks: 100**

PART- A (5 X 20 Marks = 100 Marks)

Note: Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Instruction to the Question Setters

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

1066233210	FASHION DESIGNING	L	T	P	C
THEORY		3	0	0	3

Unit I	INTRODUCTION TO FASHION INDUSTRY	
Terms related to the fashion industry – fashion, style, fad, classic, fashion cycle, chic, Custom made, mannequin, fashion show, trend, forecasting, high fashion, fashion cycle, haute couture, fashion director, fashion designer, fashion capital and fashion magazine.		9
Unit II	**ELEMENTS AND PRINCIPLE OF FASHION DESIGN**	
Design - definition and types – structural and decorative design - Characteristics of good decorative design - Application of trimmings and decorations. Elements of design – line, shape or form, colour, size and texture. Principles of design - balance – formal and informal, rhythm- through repetition, radiation and gradation, emphasis, harmony and proportion.		9
Unit III	**COLOUR ASPECTS**	
Colour - definition, colour theories - Prang colour chart and Munsell colour system, Dimensions of colour hue, value, and intensity – Tint & Shade – Warm & cool colours. Study of Colour Scheme - Related colour scheme - Mono chromatic, Neutral, Analogous. Contrast colour scheme - Simple contrast, Double contrast, Split, Triad - Psychology of colour on dress – color harmony - Application of colour on different seasons.		9
Unit IV	**DESIGN DEVELOPMENT**	
Design development – Motif – Definition – Types of motifs – Development of motifs – Motifs on the fabrics – Steps in design development – Sources of Inspirations – Design development through natural sources. Study of Pattern in fabrics - Naturalistic abstract - Conventional – Geometric - Animate - Abstract - floral design – Half drop design & Reverse half drop design.		9
Unit V	**WARDROBE PLANNING**	
Wardrobe planning for different age groups, factors influencing wardrobe selection, Fashion and season, Designing dresses for different occasions – business meetings, parties/ dinners, evenings / leisure hours, marriage functions, sports, uniforms for civil service, airhostess, hoteliers, schools – girls and boys.		9
TOTAL HOURS		**45**

1066233210	FASHION DESIGNING	L	T	P	C
THEORY		3	0	0	3

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Reference

1. Illustrating Fashion Kathryn McKelvey & Janine Munslow Blackwell Publishing 2005
2. Fashion Design Process, Innovation & Practice Kathryn McKelvey& Janine Munslow Blackwell Publishing 2005
3. The Psychology of dress Frank Alvah Double day Page & Co. 2005
4. The arts of costume & Personal appearance Grace Margarit Morton John wiley &Sons London. 2006
5. Fabrics and dress Ruthtone and Tarplay Houghton Mifflin London 2007
6. Elementry Costume design Harisonfeather John Wiley and Sons Stone Dorothy 2010
7. Dress Designing H.F.Kepworth The English Univ. Press Ltd., London 2008
8. Individuality and Cloths Margaret story Funle &Wsanalls Lippion cott. 2007
9. Essential of Design Degrmo Winslow Macillion Co. New York. 1986 Men's wardrobe Thames and Hudson London 2011
10. Art & Fashion Dr.Alice Mackrell Batsford Publication 2008

1066233310	APPAREL DESIGNING	L	T	P	C
THEORY		3	0	0	3

Introduction

Style of every garment needs various design techniques for improvising the garment. The garment construction includes various types of stitches, seams, collars, cuffs, plackets, pockets, neckline finishes and fullness effect. Each and every item is used depending on the style, the personality of the wearer, the occasions and the aesthetics. This subject enriches the knowledge on the design techniques of the various parts of the garment so as to make it perfect and beautiful.

Course Objectives

The objective of this course is to enable the student to

1. Understand the importance of Human Anatomy.
2. Understand the types of figures.
3. Learn the basics of Measurements and Garment construction.
4. Learn the types of fabric
5. Understand the grain line
6. Learn different types of layout, Marker and Marker efficiency.
7. Learn different types of Seams.
8. Understand the types of Plackets.
9. Understand the types of Yokes.
10. Study the selection of Collars and Neckline finishes.
11. Know about Sleeves and its types.
12. Understand the types of Darts, Pleats and Tucks.
13. Understand the types of Gathers Shirrs, Flares and Frills.

Course Outcomes

On successful completion of this course, the student will be able to apply the principles

CO1: Explain the basics of Apparel Designing

CO2: Create Pattern and Pattern layout

CO3: Demonstrate about Seam, Seam finish & Placket

CO4: Develop new types of Collar, Yoke & Sleeve

CO5: Describe about Fullness

1066233310	APPAREL DESIGNING	L	T	P	C
THEORY		3	0	0	3

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2	2		3
CO2	3	2	2	2		2	3
CO3	3	2	2		2		3
CO4	3	2	2	2		2	3
CO5	3	2	2		2		3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

1066233310	APPAREL DESIGNING	L	T	P	C
THEORY		3	0	0	3

Assessment Methodology

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Written test (Two units)	Written test (Another Two units)	Quiz MCQ (Online / Offline)	Model Examination	Written Examination
Duration	2 Periods	2 Periods	1 Hour	3 Hours	3 Hours
Exam Marks	50	50	60	100	100
Converted to	15	15	5	20	60
Marks	15		5	20	60
Tentative Schedule	6th Week	12th Week	13-14th Week	16th Week	

CA1 and CA2: Assessment written test should be conducted for 50 Marks for two units. The marks scored will be converted to 15 Marks. Best of one will be considered for the internal assessment of 15 Marks.

CA1and CA2, Assessment test should be conducted for two units as below.

PART A: (5 X 10 Marks = 50 Marks).

Eight questions will be asked; students should write Five questions. Each unit Four questions can be asked. Each question may have subdivisions. Maximum two subdivisions shall be permitted.

CA3: 60 MCQ can be asked by covering the entire portion. It may be conducted by Online / Offline. The marks scored should be converted to 5 marks for the internal assessment.

CA4: Model examination should be conducted as per the end semester question pattern. The marks should be converted to 20 marks for the internal assessment.

Question Pattern:

Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

1066233310	APPAREL DESIGNING	L	T	P	C
THEORY		3	0	0	3

Question Pattern - Model Examination and End Semester Examination - Theory Exam

Duration: 3 HOURS **Max .Marks: 100**

PART- A (5 X 20 Marks = 100 Marks)

Note: Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Instruction to the Question Setters

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

1066233310	APPAREL DESIGNING	L	T	P	C
THEORY		3	0	0	3

Unit I	BASICS OF APPAREL DESIGN	
Eight head theory and its importance in apparel manufacturing – Garment Construction Tools & Equipment – Measuring, Marking, Cutting, Pressing and General tools. Measurements – Importance - Procedure for taking measurements and Various body measurements. Pattern – Definition and importance - Types - merits and demerits of patterns. Types of Figure – Proportionate, Corpulent figure, Semi corpulent figure, Stooping figure – Erect figure.		9
Unit II	**PATTERN LAYOUT**	
Types of fabric used for Garment manufacturing - Fabric grains – types of grain and its importance. Principles in pattern making – Pattern layout and its importance – Principles in pattern layout – Different types fabric folding for layout – Special types of Layout – Procedure for economical layout- Insufficient fabric layout – Marshdan layout for bulk production and its importance –Type of Lays – Lay length and marker – Marker efficacy – Lay efficiency.		9
Unit III	**SEAMS & PLACKET**	
Seams – Definition - Different types of seams- Plain, French, Welt seam, Top stitch seam - Seam finishes and Neck line finishes. Hems – definition – Types of hems – Slip, Catch stitch, Invisible, Herring bone. Plackets & Openings – definition - characteristics of good plackets – One piece, Two pieces and Tailored plackets.		9
Unit IV	**YOKE, COLLAR & SLEEVES**	
Yoke – definition - selection of yoke design. Different types of yokes (Partial, Midriff, and Yoke with fullness). Collars – Types of collar like Shirt, Stand, Shawl and Peter pan. Sleeves – Types of sleeves such as Plain, Puff, Bell and Circular.		9
Unit V	**FULLNESS**	
Fullness – definition - Single and double pointed darts - Relocation of dart by slash and spread method - Types of tucks like pin tuck, cross tuck, piped tuck, shell tuck and its importance - Types of pleats like Knife pleat, Box pleat, Kick pleat, Cartridge pleat, Pinch pleat and its importance - Gathers and Frills.		9
TOTAL HOURS		**45**

1066233310	APPAREL DESIGNING	L	T	P	C
THEORY		3	0	0	3

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Reference

1. Practical clothing construction Part I& II Mary Mathews Bhattarans Reprographics (P) Ltd., Chennai. 2012
2. The Art of Sewing Anna Jacob Thomas UBS Publisher,Delhi 2008
3. Practical dress Design Enwin, M.D. The MacMillan Comp., New York. 2010
4. Complete guide to sewing Reader's digest sewing guide The reader's digest Association, Inc. New York. 2005

1066233420	SURFACE ORNAMENTATION	L	T	P	C
PRACTICAL		0	0	6	3

Introduction

Surface ornamentation refers to the process of adorning a fabric's surface after it has been formed using a variety of techniques like tie-dye, block printing, batik, embroidery, etc. It currently plays a huge part in fashion design. In order to draw in and keep clients, surface decoration is preferred.

Course Objectives

The objective of this course is to enable the student to

1. To teach the students techniques of hand embroidery stitches.
2. To make students aware of the basic fabric ornamentation techniques like tie and dye, fabric painting and block printing.
3. To introduce the students to various traditional embroideries of India

Course Outcomes

On successful completion of this course, the student will be able to apply and create

CO1: Embroidery hand stitches

CO2: Advanced hand stitches

CO3: Traditional Embroidery designs

CO4: Fabric painting techniques

CO5: Design using Sponging techniques

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2		1	3
CO2	3	2		2	1	2	3
CO3	3	2	2			1	2
CO4	3	2	2	2	1	2	3
CO5	3	2	1	1		1	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066233420	SURFACE ORNAMENTATION	L	T	P	C
PRACTICAL		0	0	6	3

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Practical Document	Practical Test	Practical Examination
Portion	First Cycle / 50 % Exercises	Second Cycle / Another 50 % Exercises	All Exercises	All Exercises	All Exercises
Duration	2 Periods	2 Periods	Regularly	3 Hours	3 Hours
Exam Marks	50	50	Each Practical 10 Marks	100	100
Converted to	10	10	10	20	60
Marks	10		10	20	60
Internal Marks	40				60
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

Note:

- **CA1 and CA2:** All the exercises/experiments as per the portions mentioned above should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the

1066233420	SURFACE ORNAMENTATION	L	T	P	C
PRACTICAL		0	0	6	3

scheme of evaluation as below. The marks awarded will be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50

- **CA 3:** Practical document should be maintained for every exercise / experiment immediately after completion of the practice. The same should be evaluated for 10 Marks. The total marks awarded should be converted to 10 Marks for the internal assessment. The practical document should be submitted for the Practical Test and End Semester Examination with a Bonafide certificate

  The details of the documents to be prepared as per the instruction below

  Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

  This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

  The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.
- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded should be converted to 20 Marks for the internal assessment.

1066233420	SURFACE ORNAMENTATION	L	T	P	C
PRACTICAL		0	0	6	3

SCHEME OF EVALUATION

Model Practical Examination and End Semester Examination- Practical Exam

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	30
B	Experiment	60
C	Viva Voce	10
	TOTAL	100

1066233420	SURFACE ORNAMENTATION	L	T	P	C
PRACTICAL		0	0	6	3

Unit I	HAND STITCHES - 1	
Running stitch, Back stitch, Stem stitch, Chain stitch, Lazy daisy stitch (Sample size 8”x 8”) **Experiments:** 1. Prepare a sample using running stitch. 2. Prepare a sample using back stitch. 3. Prepare a sample using stem stitch. 4. Prepare a sample using chain stitch. 5. Prepare a sample using Lazy daisy stitch.		35
Unit II	**HAND STITCHES 2**	
Buttonhole stitch, Feather stitch, Herringbone stitch, Bullion knot stitch, French knot stitch, Satin stitch (Sample size 8”x 8”) **Experiments:** 6. Prepare a sample using buttonhole stitch. 7. Prepare a sample using feather stitch. 8. Prepare a sample using herringbone stitch. 9. Prepare a sample using knot stitch. 10. Prepare a sample using satin stitch.		35
Unit III	**TRADITIONAL INDIAN EMBROIDERY**	
Kantha of West Bengal, Kutch and Mirror work of Gujarat, Chikankari of Uttar Pradesh, Kasuti of Karnataka, Chamba of Himachal Pradesh. (Sample size 8”x 8”) **Experiments:** 11. Prepare a sample using Kutch embroidery technique. 12. Prepare a sample using Mirror embroidery technique 13. Prepare a sample using bead work.		15
Unit IV	**FABRIC PAINTING**	
Fabric painting- Filling, Shading, Dry Brush, stenciling, Spraying, Sponging **Experiments:** 14. Prepare a sample using fabric painting technique.		5
TOTAL HOURS		**90**

1066233420	SURFACE ORNAMENTATION	L	T	P	C
PRACTICAL		0	0	6	3

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety.

List of Equipment

1. Hand / Machine embroidery tools & machineries:-
    - Embroidery frame- 30 No.
    - Hand needles- 30 No.
    - Tracing wheel- 30 No. o Thimbles- 30 No.

1066233420	SURFACE ORNAMENTATION	L	T	P	C
PRACTICAL		0	0	6	3

2. Materials required:
   - 2 meter fabric/ expt / batch of 30 students
   - 1 meter Non-woven or Sponge sheet / experiment / batch of 30 students
   - 10 sheets of tracing paper/ experiment /batch of 30 students
   - Embroidery threads- 30skeins of assorted colors/ experiment / batch of 30 students.

1066233420	SURFACE ORNAMENTATION	L	T	P	C
PRACTICAL		0	0	6	3

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to select by lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	60
Viva-Voce	10
Total	100

Reference

1. Vaine. J (2011) – The Art of Elegant Hand Embroidery, Embellishment and Applique – Landauer Publishing – Urbandale, Iowa, USA
2. Elliot. M – Painting Fabric – Henry Holt and Company – New York - 2012
3. Shrijee – Indian Ethnic Textile Design – Shrijee's Book International – New Delhi - 2007

1066233520	FASHION ILLUSTRATION	L	T	P	C
PRACTICAL		0	0	4	2

Introduction

Fashion illustration is the art of communicating fashion ideas in a visual form through the use of drawing tools.

Course Objectives

The objective of this course is to enable the student to

1. To introduce students to elements and principles of design
2. To impart knowledge on fashion art and its importance
3. Understand the colour concepts

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Develop art of fashion sketching

CO2: Draw garment components with different styles

CO3: Apply Colour aspects on design drawing

CO4: Create fashionable dress designs

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2		2	1	3
CO2	3	2	2		1		3
CO3	3		2	2	2	1	3
CO4	3	2	2		1		
CO5							

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066233520	FASHION ILLUSTRATION	L	T	P	C
PRACTICAL		0	0	4	2

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Practical Document	Practical Test	Practical Examination
Portion	First Cycle / 50 % Exercises	Second Cycle / Another 50 % Exercises	All Exercises	All Exercises	All Exercises
Duration	2 Periods	2 Periods	Regularly	3 Hours	3 Hours
Exam Marks	50	50	Each Practical 10 Marks	100	100
Converted to	10	10	10	20	60
Marks	10		10	20	60
Internal Marks	40				60
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

1066233520	FASHION ILLUSTRATION	L	T	P	C
PRACTICAL		0	0	4	2

Note:

- **CA1 and CA2:** All the exercises/experiments as per the portions mentioned above should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded will be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50

- **CA 3:** Practical document should be maintained for every exercise / experiment immediately after completion of the practice. The same should be evaluated for 10 Marks. The total marks awarded should be converted to 10 Marks for the internal assessment. The practical document should be submitted for the Practical Test and End Semester Examination with a Bonafide certificate

  The details of the documents to be prepared as per the instruction below

  Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

  This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

  The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.

1066233520	FASHION ILLUSTRATION	L	T	P	C
PRACTICAL		0	0	4	2

- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded should be converted to 20 Marks for the internal assessment.

SCHEME OF EVALUATION

Model Practical Examination and End Semester Examination- Practical Exam

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	30
B	Experiment	60
C	Viva Voce	10
	TOTAL	100

1066233520	FASHION ILLUSTRATION	L	T	P	C
PRACTICAL		0	0	4	2

Unit I	FASHION ART	
Introduction to Fashion Art, Proportion and the Fashion Figure- 8 head, 10 head, 12 head theory of fashion drawing **Experiments:** 1. Prepare a chart of Male figure using 8 head theory. 2. Prepare a chart of Female figure using 8 head theory.		10
Unit II	**DARWING OF GARMENT COMPONENTS**	
Different types of collar, Sleeve, Neck line. **Experiments:** 3. Prepare a colour chart of different types of collar. 4. Prepare a colour chart of different types of sleeve. 5. Prepare a colour chart of different types of Neck line.		15
Unit III	**COLOUR ASPECTS**	
Colour - definition, colour theories - Prang colour chart, Dimensions of colour hue, value, and intensity – Tint & Shade – Warm & cool colours. Study of Colour Scheme - Related colour scheme - Mono chromatic, Neutral, Analogous. Contrast colour scheme - Simple contrast, Double contrast, Split, Triad. **Experiments:** 6. Prepare 12 colours wheel chart. 7. Prepare chart of tint and shade 8. Prepare a chart using monochromatic colour scheme. 9. Prepare a chart using simple contrast colour scheme. 10. Prepare a chart of Warm and cool colours.		25
Unit IV	**ELEMENTS OF DESIGN**	
Elements of design: Point, Line, Shape, Space, Color and texture. Principles of design proportion, balance, rhythm, Emphasis and harmony. **Experiments:** 11. Draw a design of hi-fashion dress using the elements of design. 12. Draw a design of hi-fashion dress using the principles of design		10
TOTAL HOURS		**60**

1066233520	FASHION ILLUSTRATION	L	T	P	C
PRACTICAL		0	0	4	2

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety.

List of Equipments

- Drawing table - 30 nos.

Materials required

- Chart paper- A4/ A3 size- 30 nos.
- Experiment / batch of 30 students.
- Drawing tools & colouring tools - 30nos.
- Experiment. / batch of 30 students.

1066233520	FASHION ILLUSTRATION	L	T	P	C
PRACTICAL		0	0	4	2

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to select by lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	60
Viva-Voce	10
Total	100

Reference

1. Advanced Fashion Sketch Book, Bina Abling, OM Book Service, India (2007)
2. Fashion Illustration Flat drawing
3. Pratap Mulick “Sketching“
4. Fashion Drawing – The Basic Principles, Anne Allen and Julian Seaman, Anova Books.- 2012
5. Fashion illustration and Presentation, Manmeet Sodhia, Kalyani Publishers. - 2012
6. Fashion Source Book, Kathryn Mckelvey, Blackwell Science - 2010
7. Fashion Illustration, Colin Barnes, Little Brown and Co. (UK) (April 2005).
8. Snap Fashion Sketch Book, Bill Glazer , Prentice Hall; 2 edition (2007).
9. Figure Drawing for Fashion, Isao Yajima, Graphic-Sha; First Edition (2007)
10. Fashion Art for the Fashion Industry, Rita Gersten, Fairchild Books (2009)

1066233620	BASIC GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Introduction

By learning this paper the students will gain knowledge in taking measurements. This paper will give way to understand parts and functions of a basic sewing machine and they will be able to know the mechanism and how to take care of a sewing machine. The students will also know to stitch starting from a simple seam to complex collars and yokes.

Course Objectives

The objective of this course is to enable the student to

1. Learn different types of Seams.
2. Understand the types of Plackets.
3. Understand the types of Yokes.
4. Study the selection of Collars and Neckline finishes.
5. Know about Sleeves and its types.
6. Understand the concept of

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Demonstrate the sewing machine and its accessories

CO2: Apply basic sewing technique to develop garment parts

CO3: Decorate garment with Decorative sewing techniques

CO4: Develop basic block pattern

CO5: Relocate the dart without affecting fit of the garment

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2	2	1	3
CO2	3	2	2	2	1	2	3
CO3	3	2		2	2		3
CO4	3	2	2	2	1		3
CO5	3	2	2				3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066233620	BASIC GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Practical Document	Practical Test	Practical Examination
Portion	First Cycle / 50 % Exercises	Second Cycle / Another 50 % Exercises	All Exercises	All Exercises	All Exercises
Duration	2 Periods	2 Periods	Regularly	3 Hours	3 Hours
Exam Marks	50	50	Each Practical 10 Marks	100	100
Converted to	10	10	10	20	60
Marks	10		10	20	60
Internal Marks	40				60
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

1066233620	BASIC GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Note:

- **CA1 and CA2:** All the exercises/experiments as per the portions mentioned above should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded will be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50

- **CA 3:** Practical document should be maintained for every exercise / experiment immediately after completion of the practice. The same should be evaluated for 10 Marks. The total marks awarded should be converted to 10 Marks for the internal assessment. The practical document should be submitted for the Practical Test and End Semester Examination with a Bonafide certificate

  The details of the documents to be prepared as per the instruction below

  Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

  This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

  The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.

1066233620	BASIC GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded should be converted to 20 Marks for the internal assessment.

SCHEME OF EVALUATION

Model Practical Examination and End Semester Examination- Practical Exam

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	30
B	Experiment	60
C	Viva Voce	10
	TOTAL	100

1066233620	BASIC GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Unit I	SEWING MACHINE AND ACCESSORIES OF SEWING MACHINE	
Parts and functions of sewing machine – Care and maintenance of sewing machine – Accessories of sewing machine (Bobbin, Bobbin case, Needle and its types)		15
Unit II	**BASIC SEWING TECHNIQUES**	
Basic hand stitches – Basting, running, tacking, hand overcast, buttonhole, Hemming stitches – plain and blind hemming and slip stitch. Machine Stitching – plain seam, edge, single top, double top, shirring and gathering. Seam & seam finishes – Flat fell, French seam, lapped, piped, slot, pinked, overcast, pinked & stitched **Experiments:** 1. Construct any three types of seam. 2. Construct any three types of seam finish. 3. Construct any three types of Hems.		15
Unit III	**DECORATIVE SEWING TECHNIQUES**	
Fullness – Darts, tucks, pleats, gathers and style line. Yokes – with and without Fullness. Sleeves – plain, puffed, circular and bell sleeves. Collars – Peterpan, shawl and shirt collar. Fasteners – Press button, hook & eye, shirt button, button hole and zips. Finishes – Neckline finishes – Facing, shaped, piping / binding, placket finishing – continuous one piece, two piece bound placket. **Experiments:** 4. Construct different types of dart. 5. Construct different types of pleats. 6. Construct different types of tucks. 7. Construct any three types of sleeve. 8. Construct any three types of collars. 9. Construct any three types of plackets.		30
Unit IV	**FLAT PATTERN TECHNIQUES AND ITS APPLICATION**	
Relocation of dart using pivot, slash & spread - single dart series, double dart series, radiating, graduating, parallel darts, conversion of darts to tucks, pleats, gathers and seams.		15

Experiments: 10. Relocate the dart by slash & spread method. 11. Convert the dart into tuck. 12. Construct radiating and graduating samples.	
Unit V	**BASIC PATTERN MAKING**
Preparing basic block – Front, Back and sleeve **Experiments:** 13. Prepare a basic block paper pattern of front. 14. Prepare a basic block paper pattern of back. 15. Prepare a basic block paper pattern of sleeve.	15
TOTAL HOURS	**90**

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.

1066233620	BASIC GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

List of Equipment

Equipment required:

- Measuring tools
- Pattern making tools
- Construction tools
- General tools
- Sewing machines: - Lock stitch- 15 m/cs. Optional - (Over lock- 1 m/c. Flat lock- 1 m/c Buttonhole- 1 m/c Button stitch- 1 m/c)

Materials required:

- 3- 5 meters of fabric/ experiment / batch of 30 students.
- Sewing threads: - white and assorted – 30 nos.

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to select by lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	60
Viva-Voce	10
Total	100

1066233620	BASIC GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Reference

1. Practical clothing construction Part I& II Mary Mathews Bhattarans Reprographics (P) Ltd., Chennai. 1974
2. The Art of Sewing Anna Jacob Thomas UBS Publisher,Delhi 2001
3. Practical dress Design Enwin, M.D. The MacMillan Comp., New York. 1982
4. Complete guide to sewing Reader's digest sewing guide The reader's digest Association, Inc. New York. 1976

IV SEMESTER

1066234110	APPAREL QUALITY CONTROL	L	T	P	C
THEORY		3	0	0	3

Introduction

The demand and repeat orders are obtained only when the quality of the products are maintained. The industries concentrate more on their product quality and a separate wing operates for achieving the quality. This subject deals with the quality measurement, assurance of the raw material, in process and final products and the various tests that are being carried out with respect to garment products. The care labeling and certification part is also included.

Course Objectives

The objective of this course is to enable the student to

1. Understand the inspection methods.
2. Understand the testing procedures to produce quality woven garments.
3. Learn the various testing procedures to produce quality knitted garments.
4. Learn the different types of care labeling systems.
5. Learn the various defects in garments and analyzing the reasons for them.
6. Understand the concept of Garment Industry certification

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Explain about fabric inspection system

CO2: Describe the fabric quality required for garment construction

CO3: Demonstrate the garment quality standards

CO4: Have knowledge about International care labeling

CO5: Explain the importance of International certifications

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2	2	2	2	2		3
CO2	2	2		2		2	
CO3	2	2	2		2		3
CO4	2	2	2	2		2	
CO5	3	3		1	2	2	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066234110	APPAREL QUALITY CONTROL	L	T	P	C
THEORY		3	0	0	3

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Written test (Two units)	Written test (Another Two units)	Quiz MCQ (Online / Offline)	Model Examination	Written Examination
Duration	2 Periods	2 Periods	1 Hour	3 Hours	3 Hours
Exam Marks	50	50	60	100	100
Converted to	15	15	5	20	60
Marks	15		5	20	60
Tentative Schedule	6th Week	12th Week	13-14th Week	16th Week	

CA1 and CA2: Assessment written test should be conducted for 50 Marks for two units. The marks scored will be converted to 15 Marks. Best of one will be considered for the internal assessment of 15 Marks.

CA1and CA2, Assessment test should be conducted for two units as below.

PART A: (5 X 10 Marks = 50 Marks).

1066234110	APPAREL QUALITY CONTROL	L	T	P	C
THEORY		3	0	0	3

Eight questions will be asked; students should write Five questions. Each unit Four questions can be asked. Each question may have subdivisions. Maximum two subdivisions shall be permitted.

CA3: 60 MCQ can be asked by covering the entire portion. It may be conducted by Online / Offline. The marks scored should be converted to 5 marks for the internal assessment.

CA4: Model examination should be conducted as per the end semester question pattern. The marks should be converted to 20 marks for the internal assessment.

Question Pattern:

Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

Question Pattern - Model Examination and End Semester Examination - Theory Exam

Duration: 3 HOURS **Max .Marks: 100**

PART- A (5 X 20 Marks = 100 Marks)

Note: Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Instruction to the Question Setters

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

1066234110	APPAREL QUALITY CONTROL	L	T	P	C
THEORY		3	0	0	3

Unit I	INSPECTION METHODS	
Introduction to quality control – Definition – Quality assurance – Definition and importance – Fabric inspection (4 point & 10 point system) – Working procedure – Acceptance criteria - Raw material inspection and its importance – IPQC – AQL – MIS Standards.		9
Unit II	**TESTING OF FABRICS**	
Different types of Garment testing provider (AATCC, ASTM, BS, ISO, JIS, US CPSC) - Testing of Fabric Stretch properties - Dimensional changes due to Laundering, Dry cleaning and Steaming & Pressing - Durable Press Evaluation of Fabrics - Needle cutting / yarn severance - Sew ability of fabrics - Bow and Skewness in Woven and Knitted fabrics - Distortion of yarn in Woven Fabrics.		9
Unit III	**TESTING OF GARMENTS**	
Seam strength Testing - Testing of Water Resistance and Water Repellency – Testing for Soil / Stain releasing - Testing of Fusible Interlinings and Elastic Waist Band - Pantyhose Testing - Wear Testing - Flammability - Degree Flammability. Defects in garments – Classification of major, minor and critical defects, pattern defects, spreading defects, cutting defects, stitching defects and seam defects.		9
Unit IV	**CARE LABELING**	
Introduction to Care labels - its importance - Different systems of Care labeling - American - British - Canadian - Japanese - and International labeling. Shade sorting - Introduction - importance Instrumental shade sorting.		9
Unit V	**GARMENT INDUSTRY CERTIFICATIONS**	
Importance of Garment Industry certification – GOTS - Eco Passport by OEKO TEX - Worldwide Responsible Apparel Production (WRAP) - Zero Discharge of Hazardous Chemicals (ZDHC) – REACH – LEED - Organic Content Standard (OCS) - Responsible Wool Standard (RWS) - Recycled Claim Standard (RCS 100) - Sustainable Fibre Alliance (SFA) - Cradle to Cradle certification.		9
TOTAL HOURS		**45**

1066234110	APPAREL QUALITY CONTROL	L	T	P	C
THEORY		3	0	0	3

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Test Books and Reference books

1. An Introduction to Quality control for The Apparel Industry Pradip V Mehta ASQC Quality press. New York. 2005
2. Managing Quality in the Apparel Industry Pradip V Mehta Satish k Bhardwaj New Age International Publishers 2008

Web – based / Online Resources

1. https://www.ecocert.com/en-IN/certification
2. https://textilefocus.com/brief-certifications-required-textile-industry/
3. https://www.fibre2fashion.com/industry-article/3746/iso-certification-for-textile-and-apparel-industries
4. https://www.manufacturingmanagement.co.uk/features/what-certifications-are-important-for-the-garment-industry
5. https://certifications.controlunion.com/en/industries/textiles
6. https://sa-intl.org/programs/sa8000/

1066234210	GARMENT MACHINERY AND EQUIPMENT	L	T	P	C
THEORY		3	0	0	3

Introduction

Machineries are the important section of garment construction. The quality of the product is determined to certain extent by the construction quality. Even the right kind of sewing machines and the attachments play a vital role in deciding the quality of the end product. To achieve the required quality, it is imperative to understand the type of sewing machines, its parts and functions, the maintenance part, the attachments along with various special machines that generally used in garment manufacturing.

Course Objectives

The objective of this course is to enable the student to

1. Understand the functions of lock stitch, over lock and zigzag sewing machines.
2. Learn the various defects in sewing.
3. Learn about the Threading procedure of special machines.
4. Understand the functions of special sewing machines.
5. Learn the functions of guides and attachments.
6. Understand the functions of finishing machines.
7. Learn the maintenance of sewing and other machines.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Explain about fabric spreading and cutting machines

CO2: Describe about sewing machine parts and its functions

CO3: Summarize the different types of stitching machines

CO4: Demonstrate about special sewing machine and garment finishing machines

CO5: Realize the importance of maintenance of sewing machine

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2	2	2	2	2		1
CO2	2	2	2	2	1		1
CO3	2	2	2	1	2		1
CO4	2	2	2	2	1		1
CO5	3	3	3	1	2		1

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066234210	GARMENT MACHINERY AND EQUIPMENT	L	T	P	C
THEORY		3	0	0	3

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.
- **Assessment Methodology**

	Continuous Assessment (40 marks)				**End Semester Examination (60 marks)**
	CA1	**CA2**	**CA3**	**CA4**	
Mode	Written test (Two units)	Written test (Another Two units)	Quiz MCQ (Online / Offline)	Model Examination	Written Examination
Duration	2 Periods	2 Periods	1 Hour	3 Hours	3 Hours
Exam Marks	50	50	60	100	100
Converted to	15	15	5	20	60
Marks	15		5	20	60
Tentative Schedule	6th Week	12th Week	13-14th Week	16th Week	

- **CA1 and CA2:** Assessment written test should be conducted for 50 Marks for two units. The marks scored will be converted to 15 Marks. Best of one will be considered for the internal assessment of 15 Marks.
- CA1and CA2, Assessment test should be conducted for two units as below.
  PART A: (5 X 10 Marks = 50 Marks).

1066234210	GARMENT MACHINERY AND EQUIPMENT	L	T	P	C
THEORY		3	0	0	3

Eight questions will be asked; students should write Five questions. Each unit Four questions can be asked. Each question may have subdivisions. Maximum two subdivisions shall be permitted.

- **CA3:** 60 MCQ can be asked by covering the entire portion. It may be conducted by Online / Offline. The marks scored should be converted to 5 marks for the internal assessment.
- **CA4:** Model examination should be conducted as per the end semester question pattern. The marks should be converted to 20 marks for the internal assessment.

  Question Pattern:

  Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

  Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

Question Pattern - Model Examination and End Semester Examination - Theory Exam

Duration: 3 HOURS **Max .Marks: 100**

PART- A (5 X 20 Marks = 100 Marks)

Note: Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Instruction to the Question Setters

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

1066234210	GARMENT MACHINERY AND EQUIPMENT	L	T	P	C
THEORY		3	0	0	3

Unit I	SPREADING AND CUTTING MACHINES	
Objectives of Spreading – Spreading types - Study of automatic spreading machine. Types of Cutting machines – Straight Knife, Band Knife, Round knife, Die Cutting and Laser Cutting - Brief study about computerized cutting machine.		9
Unit II	**BASIC SEWING MACHINES**	
Single needle Lock stitch machines - Parts and Functions - Timed sequence in stitch formation in single needle lock stitch machine - Needle bar mechanism with diagram - Study of thread tension variation and its adjustment in needle and Bobbin - Different types of needles and Needle Number - Selection of needle and thread.		9
Unit III	**TYPES OF STITCHING MACHINE**	
Different types of sewing machine bed and its features – Different types of stitches and its importance - Chain Stitch Machine - Zig Zag sewing machine - Different types of Feed mechanism in sewing machine - 3 threads over lock - Flat lock Machine (5 Thread) - Threading Procedures of 3 thread over lock - Threading Procedures of 5 thread flat lock.		9
Unit IV	**SPECIAL MACHINES**	
Button hole & Button Stitch Machines – Elastic tape Stitch Machine – Collar turner - Feed-Off-Arm machine – Bar Tacking machine – Blind stitch Machine - Merits of Computerized sewing machine - Computerized embroidery machine – Thread sucking machine and its importance - Needle detector and its importance. Special attachments - Types of foots, Types of folders, Types of Guides.		9
Unit V	**FINISHING MACHINES & MAINTENANCE**	
Fusing – Elements of fusing - Types of Fusing machine and working of continuous fusing machine with diagram. Garment finishing – Process flow of finishing - Objective of pressing – Equipments for pressing - Universal finishers - Tunnel finishers - Garment folding machine. Maintenance of sewing machines – Maintenance Schedule in Garment Units.		9
TOTAL HOURS		**45**

1066234210	GARMENT MACHINERY AND EQUIPMENT	L	T	P	C
THEORY		3	0	0	3

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Text Books and Reference Books

1. Technology of Clothing Manufacture Carr & Lathem Blackwell Sci.Pub New 2014
2. Introduction to Clothing Manufacture Gerry Cooklin Blackwell Sci.Pub New 2015
3. Theory of Machines P L Ballaney Kanna Pub., Delhi. 2010
4. Complete Guide to Sewing Readers Digest. 2009
5. The complete book of sewing Dorling Kindersley London 2009
6. A Text book of Machine Design R S Khurmi J K Gupta Eurasia Pub., New Delhi 2008

1066234320	CHILDREN GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Introduction

Garment construction is a technical accomplishment that requires the knowledge and skills of basic sewing techniques application of stitches, seams, darts, gathers, pleats and edge finishing, etc. It's appropriate application in garment construction is necessary for a good quality product.

Course Objectives

The objective of this course is to enable the student to

1. Understand about the suitable fabric for children's wear construction.
2. Learn about the consumption of fabric for different children's wear style.
3. Learn the layout and construction procedure of infants' style.
4. Learn the layout and construction procedure of Children's frock style.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Take body measurement for different styles

CO2: List out the required sewing machine for different garment style construction

CO3: Summarize about sew ability of fabric

CO4: Calculate the fabric consumption

CO5: Finish the garment style as per requirement

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2			1
CO2	3	2	2	2			1
CO3	3	2	2	2			1
CO4	3	2	2	2			1
CO5	3	2	2	2			1

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066234320	CHILDREN GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Practical Document	Practical Test	Practical Examination
Portion	First Cycle / 50 % Exercises	Second Cycle / Another 50 % Exercises	All Exercises	All Exercises	All Exercises
Duration	2 Periods	2 Periods	Regularly	3 Hours	3 Hours
Exam Marks	50	50	Each Practical 10 Marks	100	100
Converted to	10	10	10	20	60
Marks	10		10	20	60
Internal Marks	40				60
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

Note:

- **CA1 and CA2:** All the exercises/experiments as per the portions mentioned above should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the

1066234320	CHILDREN GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

scheme of evaluation as below. The marks awarded will be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50

- **CA 3:** Practical document should be maintained for every exercise / experiment immediately after completion of the practice. The same should be evaluated for 10 Marks. The total marks awarded should be converted to 10 Marks for the internal assessment. The practical document should be submitted for the Practical Test and End Semester Examination with a Bonafide certificate

  The details of the documents to be prepared as per the instruction below

  Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

  This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

  The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.
- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded should be converted to 20 Marks for the internal assessment.

1066234320	CHILDREN GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

SCHEME OF EVALUATION

Model Practical Examination and End Semester Examination- Practical Exam

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	30
B	Experiment	60
C	Viva Voce	10
	TOTAL	100

1066234320	CHILDREN GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Unit I	GARMENT CONSTRUCTION TOOLS AND EQUIPMENT	
Garment Construction Tools & Equipment – Measuring, Marking, Cutting, Pressing and General tools. Different types of sewing machines and its applications – Types of stitches and its applications.		2
Unit II	**INFANT WEAR**	
Suitable fabrics, Layout, fabric consumption calculation and construction procedure - Pilch nicker, Zabala, Bloomer and One piece baby cloth. **Experiments:** 1. Using given paper pattern cut, stitch and finish the garment – Piltch nicker. 2. Using given paper pattern cut, stitch and finish the garment – Zabala. 3. Using given paper pattern cut, stitch and finish the garment – Bloomer. 4. Using given paper pattern cut, stitch and finish the garment – One piece cloth.		30
Unit III	**CHILDREN'S FROCK - I**	
Suitable fabrics, Layout, fabric consumption calculation and construction procedure – A Line frock, Yoke frock, Umbrella frock and Frock petticoat. 5. Using given paper pattern cut, stitch and finish the garment – A Line frock. 6. Using given paper pattern cut, stitch and finish the garment – Yoke frock. 7. Using given paper pattern cut, stitch and finish the garment – Umbrella frock. 8. Using given paper pattern cut, stitch and finish the garment – Frock petticoat.		30
Unit IV	**BOY S' WEAR**	
Suitable fabrics, Layout, fabric consumption calculation and construction procedure – Sun suit. **Experiments:** 9. Using given paper pattern cut, stitch and finish the garment – Sun suit.		8
Unit V	**FABRIC CONSUMPTION CALCULATION**	
Experiments: 10. Calculate the fabric consumption of A Line frock by layout method. 11. Calculate the fabric consumption of Zabala by layout method. 12. Calculate the fabric consumption of Sun suit frock by layout method.		20
TOTAL HOURS		**90**

1066234320	CHILDREN GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

List of Equipment

Equipment required:

- Measuring tools
- Pattern making tools
- Construction tools
- General tools

1066234320	CHILDREN GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

- Sewing machines: - Lock stitch- 15 m/cs. Optional - (Over lock- 1 m/c. Flat lock- 1 m/c Buttonhole- 1 m/c Button stitch- 1 m/c)

Materials required:

- 3- 5 meters of fabric/ experiment / batch of 30 students.
- Sewing threads: - white and assorted – 30 nos.

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	60
Viva-Voce	10
Total	100

Reference

1. The Art of Sewing Anna Jacob Thomas. Ubs Publishers, Delhi. 2010
2. Practical Clothing Constructions Part I & II Mary Mathews Paprinpack Printers,Chennai. 2005
3. Zarapkar System of Cutting. K.R.Zarapkar Navneet Publications (I) Ltd.,Dantali. Gujarat. 2015
4. Sew It Yourself. Lippman (Gidon) Prentice Hall Inc New Jersey 2012

1066234420	GARMENT CONSTRUCTION OF BOYS & GIRLS	L	T	P	C
PRACTICAL		0	0	6	3

Introduction

Garment construction has both technical and design issues, the designer can choose where to construct lines and how to finish edges and how to produce volume and structure in order to create a good look and experience for the wearer.

Course Objectives

The objective of this course is to enable the student to

1. Understand about the suitable fabric for Boys wear construction.
2. Learn about the consumption of fabric for Boys & Girls wear style.
3. Learn the layout and construction procedure of Boys style.
4. Learn the layout and construction procedure of Girls style.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Take body measurement for different styles

CO2: List out the required sewing machine for different garment style construction

CO3: Summarize about sew ability of fabric

CO4: Calculate the fabric consumption

CO5: Finish the garment style as per requirement

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2			1
CO2	3	2	2	2			1
CO3	3	2	2	2			1
CO4	3	2	2	2			1
CO5	3	2	2	2			1

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066234420	GARMENT CONSTRUCTION OF BOYS & GIRLS	L	T	P	C
PRACTICAL		0	0	6	3

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Practical Document	Practical Test	Practical Examination
Portion	First Cycle / 50 % Exercises	Second Cycle / Another 50 % Exercises	All Exercises	All Exercises	All Exercises
Duration	2 Periods	2 Periods	Regularly	3 Hours	3 Hours
Exam Marks	50	50	Each Practical 10 Marks	100	100
Converted to	10	10	10	20	60
Marks	10		10	20	60
Internal Marks	40				60
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

Note:

- **CA1 and CA2:** All the exercises/experiments as per the portions mentioned above should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the

1066234420	GARMENT CONSTRUCTION OF BOYS & GIRLS	L	T	P	C
PRACTICAL		0	0	6	3

scheme of evaluation as below. The marks awarded will be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50

- **CA 3:** Practical document should be maintained for every exercise / experiment immediately after completion of the practice. The same should be evaluated for 10 Marks. The total marks awarded should be converted to 10 Marks for the internal assessment. The practical document should be submitted for the Practical Test and End Semester Examination with a Bonafide certificate

  The details of the documents to be prepared as per the instruction below

  Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

  This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

  The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.
- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded should be converted to 20 Marks for the internal assessment.

1066234420	GARMENT CONSTRUCTION OF BOYS & GIRLS	L	T	P	C
PRACTICAL		0	0	6	3

SCHEME OF EVALUATION

Model Practical Examination and End Semester Examination- Practical Exam

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	30
B	Experiment	60
C	Viva Voce	10
	TOTAL	100

1066234420	GARMENT CONSTRUCTION OF BOYS & GIRLS	L	T	P	C
PRACTICAL		0	0	6	3

Unit I	TIPS FOR SEWING	
Fabric type - Choose correct needle – Daily machine maintenance - Preventive machine maintenance – Sewing thread tension – How to use pins in right way.		10
Unit II	**GIRLS STYLE**	
Suitable fabrics, Layout and construction procedure – Pinafore, Skirt blouse and Peddle pusher. **Experiments:** 1. Using given paper pattern cut, stitch and finish the garment – Pinafore. 2. Using given paper pattern cut, stitch and finish the garment – Skirt blouse. 3. Using given paper pattern cut, stitch and finish the garment – Peddle pusher.		20
Unit III	**FABRIC CONSUMPTION OF GIRLS STYLE**	
Fabric consumption calculation - Pinafore, Skirt blouse and Peddle pusher. **Experiments:** 4. Calculate the fabric consumption of Pinafore by layout method. 5. Calculate the fabric consumption of Skirt blouse by layout method. 6. Calculate the fabric consumption of Peddle pusher by layout method.		20
Unit IV	**BOYS STYLE**	
Suitable fabrics, Layout and construction procedure – T Shirt, Pyjama and Boys shorts. **Experiments:** 7. Using given paper pattern cut, stitch and finish the garment – T Shirt. 8. Using given paper pattern cut, stitch and finish the garment – Pyjama. 9. Using given paper pattern cut, stitch and finish the garment – Boys shorts.		20
Unit V	**FABRIC CONSUMPTION OF BOYS STYLE**	
Fabric consumption calculation - T Shirt, Pyjama and Boys shorts. **Experiments:** 10. Calculate the fabric consumption of T Shirt by layout method. 11. Calculate the fabric consumption of Pyjama by layout method 12. Calculate the fabric consumption of Boys shorts by layout method		20
TOTAL HOURS		**90**

1066234420	GARMENT CONSTRUCTION OF BOYS & GIRLS	L	T	P	C
PRACTICAL		0	0	6	3

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

List of Equipment

Equipment required:

- Measuring tools
- Pattern making tools
- Construction tools
- General tools

1066234420	GARMENT CONSTRUCTION OF BOYS & GIRLS	L	T	P	C
PRACTICAL		0	0	6	3

- Sewing machines: - Lock stitch- 15 m/cs. Optional - (Over lock- 1 m/c. Flat lock- 1 m/c Buttonhole- 1 m/c Button stitch- 1 m/c)

Materials required:

- 3- 5 meters of fabric/ experiment / batch of 30 students.
- Sewing threads: - white and assorted – 30 nos.

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	60
Viva-Voce	10
Total	100

Reference

1. The Art of Sewing Anna Jacob Thomas. Ubs Publishers, Delhi. 2010
2. Practical Clothing Constructions Part I & II Mary Mathews Paprinpack Printers,Chennai. 2005
3. Zarapkar System Of Cutting. K.R.Zarapkar Navneet Publications (I) Ltd.,Dantali. Gujarat. 2015
4. Sew It Yourself. Lippman (Gidon) Prentice Hall Inc New Jersey 2012

1066234520	HOME TEXTILES	L	T	P	C
PRACTICAL		0	0	4	2

Introduction

This subject deals with the variety of Home Textile items like wall covering, floor covering, furniture linen, kitchen linen, bath linen and its production process. Students can able to handle the production and export of these items in a better manner.

Course Objectives

The objective of this course is to enable the student to

1. Study about domestic and International needs.
2. Understand the Various types of Floor & Wall coverings.
3. Know about the Furniture coverings.
4. Understand the quality parameters of the products.
5. Know the types of Kitchen & bath articles.
6. Have knowledge of decorating things.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Develop Wall coverings with different pattern

CO2: Create various different types of floor coverings

CO3: Analyze the bath linen

CO4: Make different types of kitchen linen

CO5: Decorate living room with home textiles

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2	2	1	3
CO2	3	2	2	2	1	2	3
CO3	3	2	2	2	2	1	3
CO4	3	2	2	2	1	2	3
CO5	3	2	2			2	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066234520	HOME TEXTILES	L	T	P	C
PRACTICAL		0	0	4	2

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Practical Document	Practical Test	Practical Examination
Portion	First Cycle / 50 % Exercises	Second Cycle / Another 50 % Exercises	All Exercises	All Exercises	All Exercises
Duration	2 Periods	2 Periods	Regularly	3 Hours	3 Hours
Exam Marks	50	50	Each Practical 10 Marks	100	100
Converted to	10	10	10	20	60
Marks	10		10	20	60
Internal Marks	40				60
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

Note:

- **CA1 and CA2:** All the exercises/experiments as per the portions mentioned above should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the

1066234520	HOME TEXTILES	L	T	P	C
PRACTICAL		0	0	4	2

scheme of evaluation as below. The marks awarded will be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50

- **CA 3:** Practical document should be maintained for every exercise / experiment immediately after completion of the practice. The same should be evaluated for 10 Marks. The total marks awarded should be converted to 10 Marks for the internal assessment. The practical document should be submitted for the Practical Test and End Semester Examination with a Bonafide certificate

  The details of the documents to be prepared as per the instruction below

  Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

  This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

  The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.
- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded should be converted to 20 Marks for the internal assessment.

1066234520	HOME TEXTILES	L	T	P	C
PRACTICAL		0	0	4	2

SCHEME OF EVALUATION

Model Practical Examination and End Semester Examination- Practical Exam

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	30
B	Experiment	60
C	Viva Voce	10
	TOTAL	100

1066234520	HOME TEXTILES	L	T	P	C
PRACTICAL		0	0	4	2

Unit I	**WALL COVERING**	
Wall coverings: - Draperies & Curtains - Plain, with Loop, Loop with Button, Tier curtain, valance, window panel, Tab top curtain, Eyelid, Rod Pocket Panel (RPP). **Experiments:** 1. Cut, stitch and finish any two types of Window curtain.		5
Unit II	**LIVING ROOM FURNISHING - I**	
Chair Linen: - Chair Pad, Chair Cushion, Chair cover, Seat pad (Sutton), Arm cap. Cushions: - Sofa cover, **Experiments:** 2. Cut, stitch and finish any two types of pillow covers. 3. Cut, stitch and finish round cushion cover. 4. Cut, stitch and finish square cushion covers with frills. 5. Cut, stitch and finish Sofa cover.		20
Unit III	**LIVING ROOM FURNISHING - II**	
Bed Linen: - Bed Spread, Duvet, Flat sheet, Fitted sheet, Pillow Shan, Quilt, Bed ruffle. Classification of Mattresses and pillows, Comforters and Blankets **Experiments:** 6. Cut, stitch and finish Quilt cover. 7. Cut, stitch and finish Bed sheet.		10
Unit IV	**BATH LINEN**	
Bath Linen: - Shower curtains, Bath rope, Bath Towel, Pool / Beach Towel, Bath Mat, Bath Sheet – Shower curtain – Day night curtain. **Experiments:** 8. Cut, stitch and finish Bath rope.		5
Unit V	**KITCHEN LINEN**	
Kitchen articles: - Apron, Mitten, Pot Holders, Kitchen Towel, Bread basket, Tea cozy - Table cloth, Napkin, Mat, Runner – Covers for Fridge, Mixi and Grinder. **Experiments:** 9. Cut, stitch and finish Apron. 10. Cut, stitch and finish Mitten. 11. Cut, stitch and finish Table cover.		20

12. Cut, stitch and finish Tea cozy.	
TOTAL HOURS	**60**

Equipment required:

- Measuring tools
- Pattern making tools
- Construction tools
- General tools
- Sewing machines: -
    i. Lock stitch- 15 m/cs.
    ii. Over lock- 1 m/c. (optional)
    iii. Flat lock- 1 m/c (optional)
    iv. Button hole- 1 m/c (optional)
    v. Button stitch- 1 m/c (optional)

Materials required:

- 3- 5 meters of fabric/ expt. / batch of 30 students.
- Sewing threads: - white and assorted – 30 nos.

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	60
Viva-Voce	10
Total	100

1066234520	HOME TEXTILES	L	T	P	C
PRACTICAL		0	0	4	2

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Reference

1. Textiles – Fibre to Fabric P.Corbaman TATA Mcgraw Hill Textile fabrics and their selection Isabel.B.Wingate Prentice Hall – Englewood Cliffs, New Jersey
2. Easy bazaar crafts Gerald.M.Knox Meredith Corporation
3. Furniture Upholstery Michal Scofield Sudha Irwin Holly Lyman Antolini Lane Publishing Co. Monlo Park, California The Complete Home Decorator Conran's habitat Caroline Clifton – Mogg Portland House, New York
4. Fashion Apparel Accessories & Home Furnishing Jay Diamond & Ellen Diamond Dorling Kindrsley Ind. Pvt. Ltd., New Delhi110092 - 2008

1066234640	GARMENT PATTERN DRAFTING - I	L	T	P	C
PRACTICUM		1	0	4	3

Introduction

Pattern drafting is the nerve centre of garment making. Every garment parts are draft to its size for lateral assembling into a garment. This procedure helps to make perfect garment to various sizes. Any alteration is also made within the pattern. The patterns can also be stored for ever and repeated orders are carried out at ease.

Course Objectives

The objective of this course is to enable the student to

1. Understand the drafting procedure for infants' style.
2. Understand the drafting procedure for frock styles.
3. Understand the drafting procedure for girls' style.
4. Understand the drafting procedure for boys' style.
5. Understand the drafting procedure for ladies style.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Make the Infant wear paper pattern

CO2: Create the paper pattern for children's frock

CO3: Draft the Girls wear paper pattern

CO4: Make the Boys wear paper pattern

CO5: Draft the Ladies wear paper pattern

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2	2		2
CO2	3	2	2	2			2
CO3	3	2	2		2		2
CO4	3	2	2	2			2
CO5	3	2	2		2		2

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066234640	GARMENT PATTERN DRAFTING - I	L	T	P	C
PRACTICUM		1	0	4	3

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology:

	Continuous Assessment (40 marks)				**End Semester Examination (60 marks)**
	CA1	**CA2**	**CA3**	**CA4**	
Mode	Practical Test	Practical Test	Written Test Theory	Practical Test	Practical Examination
Portion	Cycle I Exercises 50% Exercises	Cycle II Exercises 50% Exercises	All Units	All Exercises	All Exercises
Duration	2 Periods	2 Periods	3 Hours	3 Hours	3 hours
Exam Marks	60	60	100	100	100
Converted to Marks	10	10	15	15	60
Marks	10		15	15	60
Internal Marks	40				
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

1066234640	GARMENT PATTERN DRAFTING - I	L	T	P	C
PRACTICUM		1	0	4	3

Note:

- **CA1 and CA2:** All the exercises/experiments should be completed as per the portions above and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded shall be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

  Practical documents should be maintained for every exercise / experiment immediately after completion of the practice. The practical document should be submitted for the practical test. The same should be evaluated for 10 Marks for each exercise/experiment. The total marks awarded should be converted to 10 Marks for the practical test as per the scheme of evaluation as below.

  The details of the documents to be prepared as per the instruction below:

  Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

  This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

  The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50
D	Practical Documents (As per the portions)	10
		60

1066234640	GARMENT PATTERN DRAFTING - I	L	T	P	C
PRACTICUM		1	0	4	3

- **CA 3:** Written Test for complete theory portions should be conducted for 100 Marks as per the question pattern below. The marks scored will be converted to 15 Marks for internal assessment.

Question pattern – Written Test Theory

Description		Marks	
Part – A	30 MCQ Questions	30 X 1 Mark	30 Marks
Part – B	7 Questions to be answered out of 10 Questions.	7 X 10 Marks	70 Marks
		TOTAL	100 Marks

- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation below. After completion of all the exercises the practical test should be conducted as per End Semester Examination question pattern scheme of evaluation. The marks awarded should be converted to 15 Marks for the internal assessment.

SCHEME OF EVALUATION

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

***Note:** For the written test 20 MCQ shall be asked from the theory portions

1066234640	GARMENT PATTERN DRAFTING - I	L	T	P	C
PRACTICUM		1	0	4	3

Unit I	PATTERN DRAFTING OF INFANT WEAR	
Pattern making of Pilch Knicker, Zabala, Bloomers, Body suit (One-piece baby cloth) – with styles description. 1. Prepare the paper pattern for Pilch Knicker. 2. Prepare the paper pattern for Zabala. 3. Prepare the paper pattern for Bloomers.		15
Unit II	**PATTERN DRAFTING OF FROCKS**	
Introduction to frocks - Pattern making of A line Frock, Yoke Frock, Umbrella Frock, Frock petticoat - with style description **Experiments:** 4. Prepare the paper pattern for A Line frock. 5. Prepare the paper pattern for Yoke frock. 6. Prepare the paper pattern for Umbrella frock.		15
Unit III	**PATTERN DRAFTING OF GIRLS WEAR**	
Pattern making of Pinafore, Skirt blouse, Plain blouse, Peddle Pusher - with style description. **Experiments:** 7. Prepare the paper pattern for Pinafore. 8. Prepare the paper pattern for Peddle pusher.		15
Unit IV	**PATTERN DRAFTING OF BOYS WEAR**	
Pattern making for Boys shorts, Pyjama, T shirt, Plain shirt - with style description. **Experiments:** 9. Prepare the paper pattern for Boys shorts. 10. Prepare the paper pattern for T Shirt.		15
Unit V	**PATTERN DRAFTING OF LADIES WEAR**	
Pattern making of Modern Salwar, Chudidhar, Kameez, Ladies shirt - with style description. **Experiments:** 11. Prepare the paper pattern for Modern salwar. 12. Prepare the paper pattern for Kameez.		15
TOTAL HOURS		**75**

1066234640	GARMENT PATTERN DRAFTING - I	L	T	P	C
PRACTICUM		1	0	4	3

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

List of Equipment

Equipment required:

Pattern table- 8'x4' table- 4 nos.

Materials required:

Pattern paper-30 nos /experiment /batch of 30 students o

Measuring, drafting & general tools-30/ batch of 30 students

1066234640	GARMENT PATTERN DRAFTING - I	L	T	P	C
PRACTICUM		1	0	4	3

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

***Note:** For the written test 20 MCQ shall be asked from the theory portions

Reference

1. The Art of Sewing Anna Jacob Thomas. Ubs Publishers, Delhi. 2001
2. Practical Clothing Constructions Part I & II Mary Mathews Paprinpack Printers, Chennai.
3. Zarapkar System of Cutting. K.R.Zarapkar Navneet Publications (I) Ltd.,Dantali. Gujarat. 2015
4. Sew It Yourself. Lippman (Gidon) Prentice Hall Inc New Jersey 2005
5. Metric Pattern Cutting For Children‘s Wear Winfred Aldrich Blackwell science
6. Pattern Design For Children’s Clothes Gloria Mortimer Dunn BT Batsford Ltd, London Clothing For Moderns Erwine Macmillan Pub.Co., New York.

1066234640	GARMENT PATTERN DRAFTING - I	L	T	P	C
PRACTICUM		1	0	4	3

7. Comparative Clothing Construction Techniques Virginn Stolpe Lewis Surjeet publications Delhi. 2015
8. Scientific Garments Cutting K.M.Hegde K.M.Hegde & Sons, Poona
9. Art In Everyday Life Harriet Goldstein Vetta Goldstein Oxford & IBH Publishing

V SEMESTER

1066235110	APPAREL MERCHANDISING	L	T	P	C
THEORY		4	0	0	4

Introduction

Apparel merchandising is the common word prevailing in the Garment Industry. Every export unit is having merchandising wing. The officials in this wing are responsible for the execution of orders right from receiving orders to dispatching of goods. This subject gives an in-depth knowledge on various type of merchandising, the planning, the nature of work of a merchandiser along with the marketing techniques and sale promotion activities.

Course Objectives

The objective of this course is to enable the student to

1. Understand the merchandising procedures.
2. Learn the functions of merchandiser.
3. Understand the retail merchandising procedures.
4. Learn the pricing procedures.
5. Understand the visual merchandising procedures.
6. Understand the merchandising plan and merchandising calendar.
7. Understand the advertising techniques.
8. Learn the sales promotion techniques.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Describe about the Merchandiser role and function

CO2: Summarize about merchandising plan and TNA

CO3: Explain about pricing and sale promotion activity

CO4: Demonstrate about Retail merchandising techniques

CO5: Develop and create window display for different occasion

1066235110	APPAREL MERCHANDISING	L	T	P	C
THEORY		4	0	0	4

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2	2		2
CO2	3	2	2		1	2	3
CO3	3	2				2	2
CO4	3		2	2		2	3
CO5	3	2	2	2		2	1

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset. Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Written test (Two units)	Written test (Another Two units)	Quiz MCQ (Online / Offline)	Model Examination	Written Examination
Duration	2 Periods	2 Periods	1 Hour	3 Hours	3 Hours
Exam Marks	50	50	60	100	100
Converted to	15	15	5	20	60
Marks	15		5	20	60
Tentative Schedule	6th Week	12th Week	13-14th Week	16th Week	

1066235110	APPAREL MERCHANDISING	L	T	P	C
THEORY		4	0	0	4

- **CA1 and CA2:** Assessment written test should be conducted for 50 Marks for two units. The marks scored will be converted to 15 Marks. Best of one will be considered for the internal assessment of 15 Marks.

  CA1and CA2, Assessment test should be conducted for two units as below.

  PART A: (5 X 10 Marks = 50 Marks).

  Eight questions will be asked; students should write Five questions. Each unit Four questions can be asked. Each question may have subdivisions. Maximum two subdivisions shall be permitted.
- **CA3:** 60 MCQ can be asked by covering the entire portion. It may be conducted by Online / Offline. The marks scored should be converted to 5 marks for the internal assessment.
- **CA4:** Model examination should be conducted as per the end semester question pattern. The marks should be converted to 20 marks for the internal assessment.

  Question Pattern:

  Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

  Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

Question Pattern - Model Examination and End Semester Examination - Theory Exam

Duration: 3 HOURS **Max .Marks: 100**

PART- A (5 X 20 Marks = 100 Marks)

Note: Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Instruction to the Question Setters

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

1066235110	APPAREL MERCHANDISING	L	T	P	C
THEORY		4	0	0	4

Unit I	INTRODUCTION TO MERCHANDISING	
Terminology in merchandising - Customer, Consumer, Buyer, Importer, Retailer, Exporter and Trader. Season of export – Spring, Summer, Winter and Autumn. Types of Buyer and buying offices. Merchandising – Definition – Process flow of merchandising – Role of merchandiser – Skills of Merchandiser. Sampling – Types of samples - Development sample, Salesman sample, Approval sample, Preproduction sample, Production sample, Shipment sample.		12
Unit II	**MERCHANDISING PLANNING**	
Merchandising plan – Planning sales goals – Buying plan – Assortment Planning – Open to buy – Purpose of a six months plan, Elements of a six-month plan – Analysis of previous merchandising plan and developing a new plan - Planning components - Merchandising calendar and scheduling - TNA (Time and Action) calendar.		12
Unit III	**PRICING AND SALES PROMOTION**	
Pricing considerations and various types of pricing - Cost plus pricing, Marginal cost pricing, Discriminatory pricing and effects of Price changes. Advertising- AIDA & DAGMAR objectives, Copy writing - Print, radio, television, outdoor, transit advertising. Sales Promotion - Definition and various types of sales promotion - Personal Selling, Public Relations and propaganda's.		12
Unit IV	**RETAIL MERCHANDISING**	
Introduction to Retail Merchandising – Types of retail merchandising - Department stores – Discounters – Off-price retailers – Outlet source – Close out - Warehouse clubs – Non-store retailing – Mail order Merchants – E Tailing.		12
Unit V	**VISUAL MERCHANDISING**	

Definition of Visual Merchandising – Elements of Visual Merchandising - Signage, Marquee, Entries, Window display, Lighting & Awnings – Brief study of boutique. Principles of Displays – Responsibility in visual merchandiser – Methods of display – Problems in display.	12
TOTAL HOURS	**60**

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative Management theories.

Reference

1. Philip Kotler / Kevin Lane / Abraham Koshu / Mithileshwar Jha – Marketing Management Pearson prentice Hall Twelfth Edition 2007
2. Cundiff & Still - Fundamentals of Modern Marketing - Mc Graw Hill Twelfth Edition 2007
3. Sherlekar – Marketing Management - Himalaya Publishing House 6th Edition 2007
4. Stanton - Marketing Management - Pearson Prentice Hall 2nd Edition 2007
5. Keegan WJ and Green MS - Global Marketing - Pearson Prentice Hall 2nd Edition 2008
6. Plamer A – Principles of Marketing – Oxford University Press 2nd Edition 2008

1066235210	APPAREL INDUSTRIAL ENGINEERING	L	T	P	C
THEORY		4	0	0	4

Introduction

The garment manufacturing and exporting industry is facing heavy challenges due to various factors including global competition, production costs increase, less productivity/efficiency, labor attrition, etc. The industrial engineering concept needs to be imparted to the facilities to increase productivity.

Course Objectives

The objective of this course is to enable the student to

1. Learn about Production & Productivity
2. Learn about apparel production system and layout
3. Know the calculation of SAM
4. Learn about Ergonomics
5. Learn about SMT
6. Know the concepts of Production planning

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Explain about Production and Productivity

CO2: Describe about production system

CO3: Prepare SAM values for each and every action involved in garment production

CO4: Explain about the importance of SMT

CO5: Determine the various capacity in production planning

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2		2	2	2
CO2	3	2	2	2	1	2	2
CO3	3	2			1	2	2
CO4	3	2	2	2			2
CO5	3	2	2	2	2	2	2

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066235210	APPAREL INDUSTRIAL ENGINEERING	L	T	P	C
THEORY		4	0	0	4

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset. Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.
- **Assessment Methodology**

	Continuous Assessment (40 marks)				**End Semester Examination (60 marks)**
	CA1	**CA2**	**CA3**	**CA4**	
Mode	Written test (Two units)	Written test (Another Two units)	Quiz MCQ (Online / Offline)	Model Examination	Written Examination
Duration	2 Periods	2 Periods	1 Hour	3 Hours	3 Hours
Exam Marks	50	50	60	100	100
Converted to	15	15	5	20	60
Marks	15		5	20	60
Tentative Schedule	6th Week	12th Week	13-14th Week	16th Week	

- **CA1 and CA2:** Assessment written test should be conducted for 50 Marks for two units. The marks scored will be converted to 15 Marks. Best of one will be considered for the internal assessment of 15 Marks.

  CA1and CA2, Assessment test should be conducted for two units as below.

  PART A: (5 X 10 Marks = 50 Marks).

1066235210	APPAREL INDUSTRIAL ENGINEERING	L	T	P	C
THEORY		4	0	0	4

Eight questions will be asked; students should write Five questions. Each unit Four questions can be asked. Each question may have subdivisions. Maximum two subdivisions shall be permitted.

- **CA3:** 60 MCQ can be asked by covering the entire portion. It may be conducted by Online / Offline. The marks scored should be converted to 5 marks for the internal assessment.
- **CA4:** Model examination should be conducted as per the end semester question pattern. The marks should be converted to 20 marks for the internal assessment.

  Question Pattern:

  Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

  Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

Question Pattern - Model Examination and End Semester Examination - Theory Exam

Duration: 3 HOURS **Max .Marks: 100**

PART- A (5 X 20 Marks = 100 Marks)

Note: Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Instruction to the Question Setters

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

1066235210	APPAREL INDUSTRIAL ENGINEERING	L	T	P	C
THEORY		4	0	0	4

Unit I	INTRODUCTION TO APPAREL ENGINEERING	
Tailoring versus Garment units – Production and productivity – Benefits of increasing productivity – Factors affecting productivity – Labour productivity - Machine productivity – Material productivity – Overall productivity - Activity of apparel engineer – Benefits of Apparel engineering.		12
Unit II	**APPAREL PRODUCTION SYSTEM AND LAYOUT**	
Objective, Merits & Demerits: Whole garment production system – Group system – Progressive bundle system – Unit production system – Quick response sewing system. Objective of Layout – flow forward layout – side to side flow – Linear – U Shaped – Comb shaped - Block		12
Unit III	**WORK MEASUREMENT**	
Definition & Uses of SAM – Rating factor – Allowance – Types of allowance (Machine, Relaxation, Interference, Process, Contingency & Special) – Procedure for calculating SAM - Capacity study – Benefits of capacity study – Operator performance – WIP – Activity to manage WIP – Operation bulletin – Line balancing.		12
Unit IV	**ERGONOMICS & SCIENTIFIC METHOD OF TRAINING (SMT)**	
Ergonomics - importance, division; ergonomic principles - designing of workplace, working processes, handling material, tools and environment; ergonomic conditions related to garment industry. Aim of SMT – Methodology behind SMT – Selection test – Basic exercise – Paper exercise – Fabric exercise.		12
Unit V	**PRODUCTION PLANNING**	
Production planning - Plant capacity - Committed Capacity - Available capacity - Potential capacity - Required capacity - Individual operation capacity - Excess capacity - Relationship of production Standards to capacity - Inventory control – Economic order quantity.		12
TOTAL HOURS		**60**

1066235210	APPAREL INDUSTRIAL ENGINEERING	L	T	P	C
THEORY		4	0	0	4

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative Management theories.

Reference

1. Introduction to Clothing Production Management Chuter AJ Blackwell Science Materials Management In Clothing Production David J Taylor BSP Professional Books London 2010
2. Apparel manufacturing Ruth E Glock Grace I Kunz Prentice hall New Jersy
3. Industrial Engineering in Apparel Production Ramesh Babu V Woodhead Publishing India 2012
4. Industrial Engineering and Management N V S Raju Cengage Learning 2013

1066235320	GARMENT PATTERN DRAFTING - II	L	T	P	C
PRACTICAL		0	0	4	2

Introduction

Pattern drafting is the nerve centre of garment making. Every garment parts are draft to its size for lateral assembling into a garment. This procedure helps to make perfect garment to various sizes. Any alteration is also made within the pattern. The patterns can also be stored for ever and repeated orders are carried out at ease. From the pattern's layout is made simple and better marker efficiency is achieved for minimum consumption of fabrics.

Course Objectives

The objective of this course is to enable the student to

1. Understand the drafting procedure for Ladies' style.
2. Understand the drafting procedure for Men's styles.
3. Understand the Fitting problems.
4. Understand the concept of CAD pattern making.
5. Understand the principles of pattern alteration.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Make the Ladies style paper pattern

CO2: Create the paper pattern for Men's style

CO3: Correct the paper pattern problems

CO4: Understand and create styles as per fitting variables

CO5: Draft the paper pattern using CAD

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2	2		2
CO2	3	2	2	2			2
CO3	3	2	2		2		2
CO4	3	2	2	2			2
CO5	3	2	2		2		2

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066235320	GARMENT PATTERN DRAFTING - II	L	T	P	C
PRACTICAL		0	0	4	2

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Practical Document	Practical Test	Practical Examination
Portion	First Cycle / 50 % Exercises	Second Cycle / Another 50 % Exercises	All Exercises	All Exercises	All Exercises
Duration	2 Periods	2 Periods	Regularly	3 Hours	3 Hours
Exam Marks	50	50	Each Practical 10 Marks	100	100
Converted to	10	10	10	20	60
Marks	10		10	20	60
Internal Marks	40				60
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

Note:

- **CA1 and CA2:** All the exercises/experiments as per the portions mentioned above should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the

1066235320	GARMENT PATTERN DRAFTING - II	L	T	P	C
PRACTICAL		0	0	4	2

scheme of evaluation as below. The marks awarded will be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50

- **CA 3:** Practical document should be maintained for every exercise / experiment immediately after completion of the practice. The same should be evaluated for 10 Marks. The total marks awarded should be converted to 10 Marks for the internal assessment. The practical document should be submitted for the Practical Test and End Semester Examination with a Bonafide certificate

  The details of the documents to be prepared as per the instruction below

  Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

  This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

  The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.
- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded should be converted to 20 Marks for the internal assessment.

1066235320	GARMENT PATTERN DRAFTING - II	L	T	P	C
PRACTICAL		0	0	4	2

SCHEME OF EVALUATION

Model Practical Examination and End Semester Examination- Practical Exam

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	30
B	Experiment	60
C	Viva Voce	10
	TOTAL	100

1066235320	GARMENT PATTERN DRAFTING - II	L	T	P	C
PRACTICAL		0	0	4	2

Unit I	MEN'S WEAR - I	
Pattern making of Men's full sleeve shirt, Pleated trouser and Nehru kurtha – styles description – Calculation fabric consumption. **Experiments:** 1. Prepare the paper pattern and calculate the fabric consumption for Men's full sleeve shirt. 2. Prepare the paper pattern and calculate the fabric consumption for Pleated trouser. 3. Prepare the paper pattern and calculate the fabric consumption for Nehru kurtha with mandarin collar.		12
Unit II	**MEN'S WEAR - II**	
Pattern making of SB Waist coat, Jodhpur coat and Dressing gown – styles description – Calculation fabric consumption. **Experiments:** 4. Prepare the paper pattern and calculate the fabric consumption for SB Waist coat. 5. Prepare the paper pattern and calculate the fabric consumption for Jodhpur coat. 6. Prepare the paper pattern and calculate the fabric consumption for Dressing gown.		12
Unit III	**LADIES' WEAR - I**	
Pattern making of Saree petticoat, Flared pant and Cut choli - styles description – Calculation fabric consumption. **Experiments:** 7. Prepare the paper pattern and calculate the fabric consumption for 6 Panel Saree petticoats. 8. Prepare the paper pattern and calculate the fabric consumption for flared pant. 9. Prepare the paper pattern and calculate the fabric consumption for Cut choli.		12
Unit IV	**LADIES' WEAR - I**	
Pattern making for House coat, Full Maxi and Culottes - styles description – Calculation fabric consumption. **Experiments:**		12

10. Prepare the paper pattern and calculate the fabric consumption for House coat with front open. 11. Prepare the paper pattern and calculate the fabric consumption for Full maxi. 12. Prepare the paper pattern and calculate the fabric consumption for Culottes.		
Unit V	**FITTING & ALTERATIONS**	
Variables for fitting - Importance of altering patterns - General principles for pattern alteration - Study of fitting problems and alterations in the following parts - Bust line - Neckline - Shoulder line - Armhole - Bodice back – Sleeves - Study of fitting problems and alterations in Trousers.		12
TOTAL HOURS		**60**

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

1066235320	GARMENT PATTERN DRAFTING - II	L	T	P	C
PRACTICAL		0	0	4	2

List of Equipment

Equipment required:

Pattern table- 8'x4' table- 4 no's

Materials required:

Pattern paper-30 nos /experiment /batch of 30 students o

Measuring, drafting & general tools-30/ batch of 30 students

Reference

1. The Art of Sewing Anna Jacob Thomas. Ubs Publishers, Delhi. 2010
2. Zarapkar System Of Cutting. K.R.Zarapkar Navneet Publications (I) Ltd.,Dantali. Gujarat. 2015
3. Sew It Yourself. Lippman (Gidon) Prentice Hall Inc New Jersey 2012
4. Comparative Clothing Construction Techniques Virginn Stolpe Lewis Surjeet Publications, Delhi 1985
5. Scientific Garments Cutting K.M. Hedge K.M. Hedge & Sons., Poona
6. Pattern Cutting For Women's Outer Wear Gerry Cooklin Blackwell Science Publication, London 2010
7. Metric Pattern Cutting Winfred Aldrich Blackwell Science Publication, London 2003
8. Pattern grading for Mens' Clothes Gerry Cooklin Blackwell Science Publication, London 2009
9. Pattern grading for Children's Clothes Gerry Cooklin Blackwell Science Publication, London
10. Pattern Grading for womens' Clothiing Gerry Cooklin Blackwell Science Publication, London 2014
11. Step by Step Dress Making course Leela Aitken BBC Books, London

1066235320	GARMENT PATTERN DRAFTING - II	L	T	P	C
PRACTICAL		0	0	4	2

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	60
Viva-Voce	10
Total	100

1066235421	ADVANCED GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Introduction

Garment construction has both technical and design issues, the designer can choose where to construct lines and how to finish edges and how to produce volume and structure in order to create a good look and experience for the wearer.

Course Objectives

The objective of this course is to enable the student to

1. Understand about the suitable fabric for Men's wear construction.
2. Understand about the suitable fabric for Ladies' wear construction.
3. Learn about pattern grading.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Develop graded pattern of Front, Back & Sleeve

CO2: Construct and finish the Men's shirt & Trousers

CO3: Construct and finish the Ladies' House coat

CO4: Develop and construct divided sports skirt (Culottes)

CO5: Create ladies blouse styles

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	1	1		2	3
CO2	3	2	1	1	2		3
CO3	3	2		1		2	3
CO4	3	2	1	1	2		3
CO5	3	2	1	1		2	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066235421	ADVANCED GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Practical Document	Practical Test	Practical Examination
Portion	First Cycle / 50 % Exercises	Second Cycle / Another 50 % Exercises	All Exercises	All Exercises	All Exercises
Duration	2 Periods	2 Periods	Regularly	3 Hours	3 Hours
Exam Marks	50	50	Each Practical 10 Marks	100	100
Converted to	10	10	10	20	60
Marks	10		10	20	60
Internal Marks	40				60
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

1066235421	ADVANCED GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Note:

- **CA1 and CA2:** All the exercises/experiments as per the portions mentioned above should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded will be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50

- **CA 3:** Practical document should be maintained for every exercise / experiment immediately after completion of the practice. The same should be evaluated for 10 Marks. The total marks awarded should be converted to 10 Marks for the internal assessment. The practical document should be submitted for the Practical Test and End Semester Examination with a Bonafide certificate

  The details of the documents to be prepared as per the instruction below

  Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

  This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

  The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.

1066235421	ADVANCED GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded should be converted to 20 Marks for the internal assessment.

SCHEME OF EVALUATION

Model Practical Examination and End Semester Examination- Practical Exam

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	30
B	Experiment	60
C	Viva Voce	10
	TOTAL	100

1066235421	ADVANCED GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Unit I	**PATTERN GRADING**	
Define pattern grading - Pattern grading procedure for bodice front, back & sleeve. 1. Prepare the graded pattern of Men's full sleeve front, back and sleeve.		6
Unit II	**MEN'S STYLE - I**	
Garment construction procedure – Men's full sleeve shirt, Pleated trouser. **Experiments:** 2. Using given paper pattern cut, stitch and finish the garment – Men's full sleeve shirt. 3. Using given paper pattern cut, stitch and finish the garment – Pleated trouser.		12
Unit III	**MEN'S STYLE - II**	
Garment construction procedure – SB Waist coat, Jodhpur coat. 4. Using given paper pattern cut, stitch and finish the garment – SB Waist coat. 5. Using given paper pattern cut, stitch and finish the garment – Jodhpur coat.		12
Unit IV	**LADIES STYLE - I**	
Garment construction procedure – 6 Panel petticoats, Flared pants and Cut choli. 6. Using given paper pattern cut, stitch and finish the garment – 6 Saree petticoats. 7. Using given paper pattern cut, stitch and finish the garment – Flared pants. 8. Using given paper pattern cut, stitch and finish the garment – Cut choli.		12
Unit V	**LADIES STYLE - II**	
Garment construction procedure – House coat, Full Maxi, Straight Jacket and Culottes. 9. Using given paper pattern cut, stitch and finish the garment – House coat. 10. Using given paper pattern cut, stitch and finish the garment – Full maxi. 11. Using given paper pattern cut, stitch and finish the garment – Straight Jacket. 12. Using given paper pattern cut, stitch and finish the garment – Culottes (Divided skirt).		18
TOTAL HOURS		**90**

1066235421	ADVANCED GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

List of Equipment

Equipment required:

- Measuring tools
- Pattern making tools
- Construction tools
- General tools

1066235421	ADVANCED GARMENT CONSTRUCTION	L	T	P	C
PRACTICAL		0	0	6	3

- Sewing machines: - Lock stitch- 15 m/cs. Optional - (Over lock- 1 m/c. Flat lock- 1 m/c Buttonhole- 1 m/c Button stitch- 1 m/c)

Materials required:

- 3- 5 meters of fabric/ experiment / batch of 30 students.
- Sewing threads: - white and assorted – 30 nos.

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	60
Viva-Voce	10
Total	100

Reference

1. The Art of Sewing Anna Jacob Thomas. Ubs Publishers, Delhi. 2001
2. Practical Clothing Constructions Part I & II Mary Mathews Paprinpack Printers,Chennai. 1985
3. Zarapkar System of Cutting. K.R.Zarapkar Navneet Publications (I) Ltd.,Dantali. Gujarat. 2015
4. Sew It Yourself. Lippman (Gidon) Prentice Hall Inc New Jersey 2002

1066235422	HANDICRAFTS	L	T	P	C
PRACTICAL		0	0	6	3

Introduction:

This subject will enable students to explore the creative activities of paper Mache and fashion jewellery as part of diploma education. Indian is home to many handicrafts that can be produced with limited tools, space and materials.

Course Objectives

The objective of this course is to enable the student to

1. Appreciate the history and evaluation of paper Mache.
2. Learn how to make and prepare material for making.
3. Learn how to finish the final product.
4. Lear to prepare fashion jewellery.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Assemble and identify different tools and material needed in making paper Mache.

CO2: Prepare paper pulp, rice glue and drying tips for pulp.

CO3: Prepare hang ball & Pen holder using pulp with mould.

CO4: Expertise in use of brush and colours

CO5: Create jewellery using design, colour and combination sense

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	1	1		2	3
CO2	3	2	1	1	2		3
CO3	3	2		1		2	3
CO4	3	2	1	1	2		3
CO5	3	2	1	1		2	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066235422	HANDICRAFTS	L	T	P	C
PRACTICAL		0	0	6	3

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Practical Document	Practical Test	Practical Examination
Portion	First Cycle / 50 % Exercises	Second Cycle / Another 50 % Exercises	All Exercises	All Exercises	All Exercises
Duration	2 Periods	2 Periods	Regularly	3 Hours	3 Hours
Exam Marks	50	50	Each Practical 10 Marks	100	100
Converted to	10	10	10	20	60
Marks	10		10	20	60
Internal Marks	40				60
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

Note:

- **CA1 and CA2:** All the exercises/experiments as per the portions mentioned above should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the

1066235422	HANDICRAFTS	L	T	P	C
PRACTICAL		0	0	6	3

scheme of evaluation as below. The marks awarded will be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50

- **CA 3:** Practical document should be maintained for every exercise / experiment immediately after completion of the practice. The same should be evaluated for 10 Marks. The total marks awarded should be converted to 10 Marks for the internal assessment. The practical document should be submitted for the Practical Test and End Semester Examination with a Bonafide certificate

  The details of the documents to be prepared as per the instruction below

  Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

  This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

  The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.
- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded should be converted to 20 Marks for the internal assessment.

1066235422	HANDICRAFTS	L	T	P	C
PRACTICAL		0	0	6	3

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	30
B	Experiment	60
C	Viva Voce	10
	TOTAL	**100**

1066235422	HANDICRAFTS	L	T	P	C
PRACTICAL		0	0	6	3

Unit I	**INTRODUCTION TO PAPER MACHE**	
History of paper Mache – Paper Mache in different states – Tools and materials		6
Unit II	**MAKING OF PAPER MACHE CRAFTS**	
Experiments: 1. Prepare paper pulp. 2. Prepare rice glue.		14
Unit III	**PREAPRE PAPER MACHE WITH INNOVATION**	
Experiments: 3. Make a hanging ball using paper pulp. 4. Make a cylindrical pen holder using paper pulp. 5. Make a cylindrical 3D Turtle using paper pulp		21
Unit IV	**FINISHING THE PAPER MACHE**	
Experiments: 6. Finish the hanging ball with proper colouring. 7. Finish the pen holder with proper colouring. 8. Finish the 3D turtle with proper colouring.		21
Unit V	**FASHION JEWELLERY**	
Experiments: 9. Make a neck ornament by stringing beads. 10. Make a bracelet by German silver wire. 11. Make an ear stud by quailing paper. 12. Make a bangle by silk thread.		28
TOTAL HOURS		**90**

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market

1066235422	HANDICRAFTS	L	T	P	C
PRACTICAL		0	0	6	3

- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

List of Equipment

Equipment required:

- Mould
- Gas stove
- Plastic tub
- Apron
- Gloves

Materials required:

- Chalk powder.
- Rice flour
- Adhesive
- Sand paper
- Brush
- Acrylic colour
- Egg tray
- Quailing paper
- Silk threa

1066235422	HANDICRAFTS	L	T	P	C
PRACTICAL		0	0	6	3

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to select by lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	60
Viva-Voce	10
Total	100

Reference

1. https://handicrafts.nic.in
2. All India Handicrafts Board (AIHB)
3. https://texmin.nic.in
4. https://nationalcraftsmuseum.nic.in
5. https://www.hhecworld.com
6. https://indian.handicrafts.gov.in

1066235423	GARMENT CAD	L	T	P	C
PRACTICAL		0	0	6	3

Introduction

CAD pattern refers to the creation of patterns using computer-aided design (CAD) software. This process involves using specialized software to create digital patterns for clothing, textiles, and other items that can be produced through manufacturing or sewing.

Course Objectives

The objective of this course is to enable the student to

1. Associate computer application and fashion software.
2. Practice Photoshop / Corel draw / Open source techniques.
3. Construction of basic designs in Textile and fashion.
4. Tabulate pattern making and grading techniques
5. Designing of Garments

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Explain the application of various software's in designing

CO2: Create different textural effects and weaves in the fabric

CO3: Drape various silhouettes and colour combination in the garments

CO4: Quick modification of existing marker and to finalize a marker

CO5: Apply Marker for mass production

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	1	2		2	3
CO2	3	2	1	2			3
CO3	3	2		2		2	3
CO4	3	2	1	2			3
CO5	3	2	1	2		2	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

1066235423	GARMENT CAD	L	T	P	C
PRACTICAL		0	0	6	3

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Practical Document	Practical Test	Practical Examination
Portion	First Cycle / 50 % Exercises	Second Cycle / Another 50 % Exercises	All Exercises	All Exercises	All Exercises
Duration	2 Periods	2 Periods	Regularly	3 Hours	3 Hours
Exam Marks	50	50	Each Practical 10 Marks	100	100
Converted to	10	10	10	20	60
Marks	10		10	20	60
Internal Marks	40				60
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

1066235423	GARMENT CAD	L	T	P	C
PRACTICAL		0	0	6	3

Note:

- **CA1 and CA2:** All the exercises/experiments as per the portions mentioned above should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded will be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50

- **CA 3:** Practical document should be maintained for every exercise / experiment immediately after completion of the practice. The same should be evaluated for 10 Marks. The total marks awarded should be converted to 10 Marks for the internal assessment. The practical document should be submitted for the Practical Test and End Semester Examination with a Bonafide certificate

  The details of the documents to be prepared as per the instruction below

  Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

  This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

  The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.

1066235423	GARMENT CAD	L	T	P	C
PRACTICAL		0	0	6	3

- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded should be converted to 20 Marks for the internal assessment.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	30
B	Experiment	60
C	Viva Voce	10
	TOTAL	100

1066235423	GARMENT CAD	L	T	P	C
PRACTICAL		0	0	6	3

Unit I	SOFTWARE APPLICATION IN DESIGNING	
Introduction to various fashions designing software - Application of Software – Auto CAD or Adobe Photoshop or Corel draw or Open Source - Practicing Designs using the above software tools - Creating basic designs using geometrical patterns. **Experiments:** 1. Design a Yoke Frock with required tools through CAD 2. Design a Full sleeve shirt with required tools through CAD 3. Design a Salwar with required tools through CAD 4. Design a Trousers with required tools through CAD		24
Unit II	**BASIC DESIGNING AND COLOUR RENDERING**	
Designing of repeats – ¼, ½, ¾, Cross, Brick repeat - Symmetrical and Asymmetrical designs - One way design, abstract, all over - Checks, Stripes – vertical and horizontal, plaids. **Experiments:** 5. Create a striped shirt with symmetrical and asymmetrical designs using CAD. 6. Create a checked design Pyjama using CAD. 7. Create a one-way design Ladies Tops using CAD.		24
Unit III	**FASHION AND TEXTILE CAD**	
Set Texture's Dye, Knitting effect, Crinkle, Leather effect - Light, display mode, Define show ratio, back ground colour, ruler, design E- studio, System shortcut forms, Layers, Material area - Pick object, Create curve, Edit curve, Create surface, Modify Clip border, Rescale surface grid, Edit Surfaces grid, Fold, Create tape, Edit clip, Texture table, Rescale texture, Create, Text, Pick colour, Set canvas property - Set canvas, Clip image, Edit image alpha, colour management, Draping, Fill colour, pen, Local skew, Pick colour. **Experiments:** 8. Design a Gents garment with pleats effects through CAD. 9. Design a Ladies garment with ruffles effects through CAD		18
Unit IV	**GARMENT CAD**	
Pick up piece, How to draw darts, Weave line, Add seam allowance to a piece, set		12

piece information, print. Standard Tool Bar, Traditional tool bar, professional tool bar, Piece tool bar, Piece layout tool bar. File menu, Edit menu, Piece menu, Grading, View menu – Option menu. Experiments: 10. Prepare a Layout for Men's shirt through CAD.		
Unit V	**GARMENT GRADING AND MARKER PLANNING**	
Standard tool bar, file Menu, Edit Menu, Pattern Menu, Modify Menu, Grading, Point Grading Menu, Option Menu - Marker Tool Bar, File Tool Bar, Piece Tool Bar, File Menu, Piece Menu, Marker Option, Nesting. Prepare the Mini marker and print the same for the following Garments with different fabric texture **Experiments:** 11. Prepare the Mini marker and print the same for the following Garments with different fabric texture - Pyjama . 12. Prepare the Mini marker and print the same for the following Garments with different fabric texture - Salwar .		12
TOTAL HOURS		**90**

1066235423	GARMENT CAD	L	T	P	C
PRACTICAL		0	0	6	3

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

List of Equipments:

i) The above units to be practiced using any of the following Fashion Designing Software's or open sources

ii) Auto Cad, Corel Draw, Fashion CAD, Pattern and Garment CAD

iii) Printer

1066235423	GARMENT CAD	L	T	P	C
PRACTICAL		0	0	6	3

iv) Record / Folder Containing all the exercises of units I, II, III, VI and V to submit the same in the end examination

v) A batch of 30 students - 15 Nos. of Computer required.

vi)

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	60
Viva-Voce	10
Total	100

Reference

1. Valentina: Best for beginners
2. Blender: Best for fashion design studios
3. Tailornova: Best online clothing design software
4. Browzwear: Best for creative developers in fashion designing
5. CLO 3D Software: Best garment design software
6. Digital Fashion Pro: Best fashion design software for beginners
7. Adobe Illustrator: Best for fashion designs illustrations
8. SnapFashun: Best fashion designing software for startups & SMEs

1066235423	GARMENT CAD	L	T	P	C
PRACTICAL		0	0	6	3

9. Edraw Max: Best for diagramming and graphics
10. Cameo v5: Best for apparel business owners
11. Designer Pro Apparel Edition: Best 3D clothing design online free software
12. Digital Fashion Pro 9: Best clothing design software free with clothing templates
13. DesignHill: Best for online customized t-shirt designing
14. Virtual Fashion Basic 1.0: Best 3D garments design software
15. WSGN: Best for staying updated with fashion design trends
16. Vogue Runway: Best for runway designs

1066235541	CHEMICAL PROCESSING AND TESTING OF TEXTILES	L	T	P	C
PRACTICUM		1	0	4	3

Introduction

The introduction to chemical Processing includes the de-sizing, scouring, bleaching is the Preparatory process to any kind of Textiles. The Dyeing of different fabrics with the suitable dyes and dyeing techniques are included to understand the wet processing treatment carried out for Textiles coloration. The Printing of Textiles covers various printing method to produce various surface effects on fabric. The finishing is to produce required properties and end usage. The Testing part of this section provides a basic knowledge on the Testing methods of different types of yarn and fabric.

Course Objectives

The objective of this course is to enable the student to

1. To understand and analyze basic fabric structure.
2. To understand the basics of wet processing sequence.
3. To study the singeing, scouring, de-sizing & bleaching processes.
4. To learn the classifications of dyes.
5. To understand the various dyeing techniques.
6. To understand the methods of printing.
7. To study the various printing techniques.
8. To know about finishing processes.
9. To learn different types of finishing methods in detail.
10. To understand the basics of numbering systems.
11. To learn yarn and fabric testing procedures.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Prepare recipe for preparatory process of textile material

CO2: Prepare recipe for different types of dye

CO3: Prepare printing paste and print the fabrics

CO4: Finish the fabric with mercerization

CO5: Determine the yarn and fabric strength

1066235541	CHEMICAL PROCESSING AND TESTING OF TEXTILES	L	T	P	C
PRACTICUM		1	0	4	3

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	1	2		2	3
CO2	3	2	1	2			3
CO3	3	2		2	2	2	3
CO4	3	2	1	2			3
CO5	3	2	1	2		2	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

1066235541	CHEMICAL PROCESSING AND TESTING OF TEXTILES	L	T	P	C
PRACTICUM		1	0	4	3

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	**CA2**	**CA3**	**CA4**	
Mode	Practical Test	Practical Test	Written Test Theory	Practical Test	Practical Examination
Portion	Cycle I Exercises 50% Exercises	Cycle II Exercises 50% Exercises	All Units	All Exercises	All Exercises
Duration	2 Periods	2 Periods	3 Hours	3 Hours	3 hours
Exam Marks	60	60	100	100	100
Converted to Marks	10	10	15	15	60
Marks	10		15	15	60
Internal Marks	40				
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

Note:

- **CA1 and CA2:** All the exercises/experiments should be completed as per the portions above and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded shall be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

  Practical documents should be maintained for every exercise / experiment immediately after completion of the practice. The practical document should be submitted for the practical test. The same should be evaluated for 10 Marks for each exercise/experiment. The total marks awarded should be converted to 10 Marks for the practical test as per the scheme of evaluation as below.

1066235541	CHEMICAL PROCESSING AND TESTING OF TEXTILES	L	T	P	C
PRACTICUM		1	0	4	3

The details of the documents to be prepared as per the instruction below:

Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50
D	Practical Documents (As per the portions)	10
		60

- **CA 3:** Written Test for complete theory portions should be conducted for 100 Marks as per the question pattern below. The marks scored will be converted to 15 Marks for internal assessment.

Question pattern – Written Test Theory

Description		Marks	
Part – A	30 MCQ Questions	30 X 1 Mark	30 Marks
Part – B	7 Questions to be answered out of 10 Questions.	7 X 10 Marks	70 Marks
		TOTAL	100 Marks

1066235541	CHEMICAL PROCESSING AND TESTING OF TEXTILES	L	T	P	C
PRACTICUM		1	0	4	3

- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation below. After completion of all the exercises the practical test should be conducted as per End Semester Examination question pattern scheme of evaluation. The marks awarded should be converted to 15 Marks for the internal assessment.

SCHEME OF EVALUATION

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

***Note:** For the written test 20 MCQ shall be asked from the theory portions

1066235541	CHEMICAL PROCESSING AND	L	T	P	C
PRACTICUM	TESTING OF TEXTILES	1	0	4	3

Unit I	PREPARATORY PROCESS IN TEXTILE PROCESSING	
Sequence of process used in wet processing – Object of Singeing – Objects of de-sizing – Enzyme De-sizing - Scouring – objects - Merits of Continuous desizing and Scouring - Bleaching – objects of bleaching – Conventional bleaching process (using hypo chloride) - bleaching using Hydrogen peroxide – Comparison of woven and knitted cloth processing. **Experiments:** 1. Analyze and draw design, draft and peg-plan for plain fabric. 2. Analyze and draw design, draft and peg-plan for twill fabric. 3. Analyze and draw design, draft and peg-plan for Honeycomb fabric. 4. De-size and scour the given woven fabric. 5. Bleach the given woven fabric with Hydrogen peroxide.		15
Unit II	**DYEING OF TEXTILES**	
Dyes used for natural, Manmade and synthetic fibres – Dyeing of cellulosic fibre with Vat, Reactive dyes – Dyeing method of protein fibre with acid dyes – Dyeing of polyester with disperse dyes – HTHP Beam dyeing machine - Garment Dyeing – Denim Processing. **Experiments:** 6. Dye the given Cellulosic fabric with Reactive dyes. 7. Print the given cotton fabrics with Reactive dyes.		15
Unit III	**PRINTING OF TEXTILES**	
Comparison between dyeing and printing - Styles and methods of printing - Direct style of printing with pigments on cotton - Direct style of Printing with reactive dyes on cotton - Direct style of printing with Disperse dyes on polyester - Curing machine – steamer. **Experiments:** 8. Print the cotton fabric with reactive dye in direct style. 9. Print the cotton fabric using Pigment by direct style.		15
Unit IV	**FINISHING OF TEXTILES**	
Mercerization – Objects of mercerization – Sanforisation process – Objects of		15

Compacting and Calendaring - Finishing – Type of finishes - Finishing procedure and Chemicals - Silicone finish, Marble (Acid) finish, Stone wash, Water repellent and Water resistance finish, Flame retardant and Anti-microbial finish. **Experiments:** 10. Mercerize the given cotton fabric.		
Unit V	**PHYSICAL TESTING OF TEXTILES**	
Definition of yarn count – Definition of English and Tex system of yarn numbering - Method of count determination by Beesley balance – Yarn strength by Lea tester – Yarn Twist – Double yarn twist Estimation – Fabric Tensile, Fabric Tear & fabric Bursting strength. **Experiments:** 11. Determine the Lea strength of yarn using Lea tester. 12. Determine the Bursting strength of the fabric using Bursting tester.		15
TOTAL HOURS		**75**

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60

1066235541	CHEMICAL PROCESSING AND TESTING OF TEXTILES	L	T	P	C
PRACTICUM		1	0	4	3

Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)

- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

List of Equipment

(* Optional)

Equipment / Machines / Instruments required:

- Beaker- 30 N0s.
- Glass rod- 30 N0s.
- Steel tumbler- 30 N0s.
- Dye bath (6 tumbler/ Bath) - 30 N0s.
- Physical balance- 1 No
- Electronic balance*- 1 No
- Burners 5 Nos.
- HTHP dyeing machine- 1 No o
- Screens- 5 Nos.
- Squeezer 5 Nos.
- Printing table 1 No
- Padding mangles* 1 No
- Crock meter 1 No
- Tensile strength tester- fabric 1 No
- Tearing strength tester 1 No
- Bursting strength tester 1 No
- Yarn Lea strength tester 1 No
- Beesley balance 1 No
- Wrap reel 1 No
- Counting glass 30 No

Material required: 2-3 meters of fabric/ experiment / batch of 30 students.

1066235541	CHEMICAL PROCESSING AND TESTING OF TEXTILES	L	T	P	C
PRACTICUM		1	0	4	3

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

***Note:** For the written test 20 MCQ shall be asked from the theory portions

Reference

1. The Bleaching Dying of Cotton material. Prayog R S Weaver's service centre, Mumbai 2010
2. Technology of Textile Printing Prayog R S -do- 2008
3. Principles of Textile Testing J.E. BOOTH Butterworth Scientific, London
4. Tech. of Textile Processing all series SHENAI.V.A. Shevak Publications Bombay
5. Mercerising MARSH.J.T. BT Publications, Mumbai An Introduction to Textile finishing MARSH.J.T. – BT Publications, Mumbai
6. Textile Printing Miller.W.C Society of Dyers

1066235542	GARMENT LAUNDERING AND MAINTENANCE	L	T	P	C
PRACTICUM		1	0	4	3

Introduction

The technology which is used to modify the outlook, appearance, fashion, and comfort-ability of garments is called garment laundering. Garments laundering are the aesthetic finish given to the denim fabric to enhance the appeal and to provide strength. Garments laundering process is deeply discussed in this course.

Course objectives

The objective of this course is to enable the student to

1. State the need for taking care of clothes and meaning of laundering and dry cleaning;
2. Explain the basic steps of laundering;
3. Describe the soaps and detergents;
4. List various auxiliaries and state their use;
5. Describe the procedure of removing different stains from different fabrics;
6. Elaborate different methods of washing and state their suitability to fabrics;
7. List the precautions to be taken while storing clothes;
8. Explain the process of dry cleaning.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Analyze water, soap and required equipment for laundering

CO2: Select suitable axillaries for laundering

CO3: Remove different types of stain from the apparel by identify the nature of stain

CO4: Wash different kinds of fabrics

CO5: Demonstrate care and maintenance of various fabrics

1066235542	GARMENT LAUNDERING AND MAINTENANCE	L	T	P	C
PRACTICUM		1	0	4	3

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	1	2		2	3
CO2	3	2	1	2			3
CO3	3	2		2	2	2	3
CO4	3	2	1	2			3
CO5	3	2	1	2		2	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

1066235542	GARMENT LAUNDERING AND MAINTENANCE	L	T	P	C
PRACTICUM		1	0	4	3

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	**CA2**	**CA3**	**CA4**	
Mode	Practical Test	Practical Test	Written Test Theory	Practical Test	Practical Examination
Portion	Cycle I Exercises 50% Exercises	Cycle II Exercises 50% Exercises	All Units	All Exercises	All Exercises
Duration	2 Periods	2 Periods	3 Hours	3 Hours	3 hours
Exam Marks	60	60	100	100	100
Converted to Marks	10	10	15	15	60
Marks	10		15	15	60
Internal Marks	40				
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

Note:

- **CA1 and CA2:** All the exercises/experiments should be completed as per the portions above and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded shall be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

  Practical documents should be maintained for every exercise / experiment immediately after completion of the practice. The practical document should be submitted for the practical test. The same should be evaluated for 10 Marks for each exercise/experiment. The total marks awarded should be converted to 10 Marks for the practical test as per the scheme of evaluation as below.

1066235542	GARMENT LAUNDERING AND MAINTENANCE	L	T	P	C
PRACTICUM		1	0	4	3

The details of the documents to be prepared as per the instruction below:

Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50
D	Practical Documents (As per the portions)	10
		60

- **CA 3:** Written Test for complete theory portions should be conducted for 100 Marks as per the question pattern below. The marks scored will be converted to 15 Marks for internal assessment.

Question pattern – Written Test Theory

Description		Marks	
Part – A	30 MCQ Questions	30 X 1 Mark	30 Marks
Part – B	7 Questions to be answered out of 10 Questions.	7 X 10 Marks	70 Marks
		TOTAL	100 Marks

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1066235542	GARMENT LAUNDERING AND MAINTENANCE	L	T	P	C
PRACTICUM		1	0	4	3

- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The Practical test should be conducted as per the scheme of evaluation below. After completion of all the exercises the practical test should be conducted as per End Semester Examination question pattern scheme of evaluation. The marks awarded should be converted to 15 Marks for the internal assessment.

SCHEME OF EVALUATION

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

***Note:** For the written test 20 MCQ shall be asked from the theory portions

1066235542	GARMENT LAUNDERING AND MAINTENANCE	L	T	P	C
PRACTICUM		1	0	4	3

Unit I	WASHING AND DRYING EQUIPMENTS	
Water - hard and soft water - methods of softening water. Laundry soaps – Manufacture of soap (Hot process, cold process). Laundry equipment – for storage, for steeping and Washing – Wash board, suction washer, wash boiler, washing machine Drying equipments: Outdoor and indoor types - Irons and ironing board – types of iron (box, flat, automatic, steam iron) .Ironing board – different types **Experiments:** 1. Analysis the water. 2. Analysis the soap and detergent (Foam test).		15

Unit II	LAUNDERING	
Meaning of laundering – steps in laundering – mending – stain removal –sorting – soaking – washing – starching / bluing – drying – pressing and finishing – Detergents – Composition of soap - types of soap - Auxiliaries - Blues - Optical brightening agents - Chemical bleaches - Stain removing agents - Stiffening agents. **Experiments:** 3. Study the different types of laundry equipments. 4. Study the different types of drying equipments. 5. Study the effect of laundering of different types of fabrics. 6. Study the dry cleaning of garments.		15

Unit III	STAIN REMOVAL	
Indentify a stain - Vegetable stains - Animal stains - Grease stains - Mineral stains - Grass stain - Miscellaneous stains – Methods of stain removal - Precautions While Removing Stains. **Experiments:** 7. Remove the below stain from White cotton, Coloured cotton, Silk & Wool and Synthetics i. Tea / Coffee stain ii. Blood / Egg / Meat stain iii. Butter / Ghee / Oil stain		15

iv. Paint / Shoe polish / Lip stick / Ball pen stain / Grass stain		
Unit IV	**WASHING**	
Methods of washing - Friction washing - Suction - Kneading and squeezing - Washing by machines – Dry cleaning – Process of washing for different kinds of textile material.		15
Unit V	**CARE AND MAINTENANCE**	
General care and maintenance – Cotton - Silk fabric – Woolen fabric - Synthetic fabrics – Care symbols and its importance – **Experiments:** 8. Study the storing of different kinds of fabrics.		15
TOTAL HOURS		**75**

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.

1066235542	GARMENT LAUNDERING AND MAINTENANCE	L	T	P	C
PRACTICUM		1	0	4	3

- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

List of Equipment

Equipment required:

Washing machine- 1

Drying unit – 1

TDS Meter – 1

Electronic balance – 1

Test tubes – 10

Beaker (100 ml) - 10

Class rod – 10

Measuring cylinder – 1

Measuring scale - 1

Materials required:

Distilled water

Soap & Detergents

Dry cleaning solutions

Stain remover

Different kinds of fabric (Cotton, wool, acetate, silk, polyester ...)

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

1066235542	GARMENT LAUNDERING AND MAINTENANCE	L	T	P	C
PRACTICUM		1	0	4	3

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

***Note:** For the written test 20 MCQ shall be asked from the theory portions

Reference:

1. Wingate I B Textiles fabrics and their Selection Allied publishers Ltd, Chennai 85
2. Susheela Dantyagi Fundamentals of Textiles and their Care Orient Longmann Ltd 1980
3. Durga Duelkar Household Textiles and Laundry Work Amla Ram & Sons, Delhi.
4. www.fabriclink.com/fabriccare.html

1066235543	INDIAN AND WESTERN COSTUMES	L	T	P	C
PRACTICUM		1	0	4	3

Introduction:

Fashion begins with historic costumes. In other words it cycles around. All the designers still create designs through inspirations derived from historic costumes. Such a vast complex styles of garments exists in this field and one should know in details the costumes of India and Western part of the world to become master of fashion. This subject provides rich knowledge about various costumes of the world.

Course Objectives:

At the end of the study of V Semester the student will be able to

1. Study about the origin & need of clothing.
2. Study about the factors influence the costume changes in ancient period.
3. Study about the costumes of pre-historic period.
4. Study about the ancient western costumes.
5. Know about the history of Indian costumes.
6. Study about the traditional costumes & prints of India.
7. Study about the costume changes of modern world.

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Explain about pre history of costumes.

CO2: Apply ancient world costumes in modern trend.

CO3: Describe about western costume designs and apply to new trend.

CO4: Create modern costumes using traditional Indian costumes.

CO5: Develop modern world costumes.

1066235543	INDIAN AND WESTERN COSTUMES	L	T	P	C
PRACTICUM		1	0	4	3

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	1	2		2	3
CO2	3	2	1	2			3
CO3	3	2		2	2	2	3
CO4	3	2	1	2			3
CO5	3	2	1	2		2	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

1066235543	INDIAN AND WESTERN COSTUMES	L	T	P	C
PRACTICUM		1	0	4	3

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Written Test Theory	Practical Test	Practical Examination
Portion	Cycle I Exercises 50% Exercises	Cycle II Exercises 50% Exercises	All Units	All Exercises	All Exercises
Duration	2 Periods	2 Periods	3 Hours	3 Hours	3 hours
Exam Marks	60	60	100	100	100
Converted to Marks	10	10	15	15	60
Marks	10		15	15	60
Internal Marks	40				
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

Note:

- **CA1 and CA2:** All the exercises/experiments should be completed as per the portions above and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded shall be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

  Practical documents should be maintained for every exercise / experiment immediately after completion of the practice. The practical document should be submitted for the practical test. The same should be evaluated for 10 Marks for each

exercise/experiment. The total marks awarded should be converted to 10 Marks for the practical test as per the scheme of evaluation as below.

The details of the documents to be prepared as per the instruction below:

Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50
D	Practical Documents (As per the portions)	10
		60

1066235543	INDIAN AND WESTERN COSTUMES	L	T	P	C
PRACTICUM		1	0	4	3

- **CA 3:** Written Test for complete theory portions should be conducted for 100 Marks as per the question pattern below. The marks scored will be converted to 15 Marks for internal assessment.

Question pattern – Written Test Theory

Question pattern – Written Test Theory

Description		Marks	
Part – A	30 MCQ Questions	30 X 1 Mark	30 Marks
Part – B	7 Questions to be answered out of 10 Questions.	7 X 10 Marks	70 Marks
		TOTAL	100 Marks

- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation below. After completion of all the exercises the practical test should be conducted as per End Semester Examination question pattern scheme of evaluation. The marks awarded should be converted to 15 Marks for the internal assessment.

SCHEME OF EVALUATION

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

***Note:** For the written test 20 MCQ shall be asked from the theory portions

1066235543	INDIAN AND WESTERN COSTUMES	L	T	P	C
PRACTICUM		1	0	4	3

Unit I	INTRODUCTION TO COSTUMES	
Origin of clothing – dress out of painting, cutting and other methods - Growth of dress, Need for clothing- factors influencing costume changes- role of costumes as a status symbol, sex appeal, fashion and seasons.		15

Unit II	COSTUMES OF ANCIENT WORLD	
Pre-historic period- discussions on costumes- Sumerian costumes Cloak- Kaunakas- outer garments- Roman costumes- Tunic- Toga Stola- Palla- Byzantine costumes- Cloaks- Hose- Pallium- Brief study of costumes on Socio-political and economic point of view- study on colour combinations- view on society reflections. **Experiments:** 1. Design a Sumerian outer garment style with suitable colours. 2. Design a Roman costume style with suitable colours. 3. Design a Byzantine costume style with suitable colours.		15

Unit III	COSTUMES OF WESTERN COUNTRIES	
Costumes of Ancient Western Civilization – Egypt, Roman, English, French empires during Renaissance 1500 – 1600 A.D. Jewellery of the period – color combination- Materials – Accessories. Brief study of costumes on Socio-political and economic point of view. **Experiments:** 4. Draw a jewellery design of Egypt with suitable colour combination. 5. Draw a jewellery design of Roman with suitable colour combination. 6. Draw a jewellery design of English with suitable colour combination. 7. Draw a jewellery design of French with suitable colour combination.		15

Unit IV	TRADITIONAL COSTUMES OF INDIA	
Costumes of India, History of Indian Costumes upto Mughal Period, Traditional Costumes of different states in India. Accessories and Garments used in India. Study of Dacca Muslin,Jandhani, Himrus & Amrus Carpets, Kashmir Shawls, Kanchipuram & Baluchari Sarees, Paithani sarees, Bandhani, Patola, Ikat, Kalamkari and other styles of Printing & Dyeing Textiles.		15

Experiments: 8. Draw a costume design of Mughal period. 9. Draw a design of kalamkari printing. 10. Draw a design of Ikat printing.	
Unit V	**COSTUMES OF MODERN WORLD**
Costumes of 20th century-factors influencing on costume changes – Study on Business Wears- Evening dress- Sleep wear- Religious wear- Seasonal wear - Specialized wears- Bridal wear – Sportswear Industrial wear- Party wear – Brief study of costumes on Socio-political and economic point of view- study on colour combinations. **Experiments:** 11. Design a modern Business wear. 12. Design a modern sleep wear.	15
TOTAL HOURS	**75**

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

1066235543	INDIAN AND WESTERN COSTUMES	L	T	P	C
PRACTICUM		1	0	4	3

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60
- Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

List of Equipments

- Drawing table - 30 nos.

Materials required

- Chart paper- A4/ A3 size- 30 nos.
- Experiment / batch of 30 students.
- Drawing tools & colouring tools - 30nos.
- Experiment. / batch of 30 students.

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

1066235543	INDIAN AND WESTERN COSTUMES	L	T	P	C
PRACTICUM		1	0	4	3

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

***Note:** For the written test 20 MCQ shall be asked from the theory portions

Reference:

1. Historic Costumes Lester K.I. Chas A Bennet & Co 1991
2. Costume & Fashion Laver J Thames & Hudson 1997
3. Costume & Fashion Jack Cassin - Scott Brockhampton press, London 1999
4. Costumes of India & Pakistan Das S N 1984
5. Indian Costume G.S Ghurye Popular Prakasham 1987
6. History of Fashion Garland 2001
7. The encyclopaedia of Fashion Georgina 'O' Hara 2002
8. Fashion in western world Yarwood Doreep 2002
9. Costume, Textiles and Jewellery of India Vandana Bhenderi Prakash Books, New Delhi, 2004.

1066235654	INNOVATION & STARTUPS	L	T	P	C
PRACTICUM		1	0	2	2

Introduction

The integration of Innovation and Start-ups concept within the syllabus is testament to the forward thinking nature of educational institutions. By introducing this concept, students are provided with a solid foundation upon which they can build their skills in Innovation and Start-ups. This course can bridge the gap between theory and practice. It allows students to apply the knowledge they have acquired in a real world context, thereby enhancing their understanding and retention of the above concept. This experimental learning approach not only fosters a deeper level of engagement but also trains student with practical skills necessary to navigate the complexities of the business world. This also empowers students to become an Innovator or Entrepreneur. With necessary tools and knowledge, educational institutions are preparing the next generation of entrepreneurs to tackle the challenges and opportunities that lie ahead. This syllabus will explore the different facets of innovation, including its importance, types and strategies for fostering a culture of innovation within organizations

Course Objectives

The objective of this course is to enable the students

- To understand the concept of Innovation and Start-ups.
- To acquire knowledge of Prototype development, IPR, Patents and Copyrights.
- To have practical experience in preparing Business plan for Start-ups.
- To visit the existing nearby industry to prepare a project report about the present challenges of that industry.
- To know the different funding supports available from Government and Non-Government schemes for Start-ups.

Course Outcomes

After successful completion of this course, the students should be able to

CO 1: Differentiate between Innovation and Start-ups

CO 2: Explain the importance of IPR, Patents and Copyrights.

CO 3: Describe the methodology to be adopted for preparing the Business Plan

CO 4: Gain practical experience by Industrial training and visiting the nearby industry

Co 5: Explore and identify various funding facilities available from Government and Non-Government Schemes for Start-ups

1066235654	INNOVATION & STARTUPS	L	T	P	C
PRACTICUM		1	0	2	2

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	-	-	1	-	2	3	3
CO2	-	-	1	-	2	3	3
CO3	-	-	1	-	2	3	3
CO4	-	-	1	-	2	3	3
CO5	-	-	1	-	2	3	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Assessment Methodology

	Continuous Assessment (40 marks)			End Semester Examination (60 marks)
	CA1	CA2	CA3	
Mode	Class Assessment (Unit I, II & Unit III)	Seminar Presentations (Unit IV)	Submission of Industry Visit Project Report (Unit V)	Practical Examination (Project)
Duration	2 hours	---	---	3 hours
Exam Marks	50	20	30	100
Converted to	10	10	20	60
Marks	**10**	**10**	**20**	**60**

1066235654	INNOVATION & STARTUPS	L	T	P	C
PRACTICUM		1	0	2	2

Continuous Assessment - 40 marks

S. No	Description	Marks
CA 1	**Class Assessment (50 marks) - Unit – I,II & III** Written Examination - Theory Questions 10 questions out of 15 questions (10 x 3 marks :30 marks) 4 questions out of 6 questions (4 x 5 marks : 20 marks)	10 marks
CA 2	**Seminar Presentations (20 marks- each topic carries 10 marks) - Unit IV** Students should present any two topics with PPTs	10 marks
CA 3	Submission of Industry Visit Project Report - **(30 marks) - Unit V**	20 marks
	Total	**40 marks**

1066235654	INNOVATION & STARTUPS	L	T	P	C
PRACTICUM		1	0	2	2

UNIT I	INTRODUCTION TO INNOVATION	
An Introduction to Innovation and Creativity- Innovation in current Environment - Types of Innovation - Challenges of Innovation - Steps of Innovation Management - Divergent v/s Convergent thinking - Design thinking and Entrepreneurship.		6

UNIT II	INCUBATION CLUBS, IPR, PATENTS AND COPYRIGHTS	
Idea Generation - Incubation Clubs - Prototype Development - Marketing of Innovation - Management of Innovation - Creation of IPR -Types of IPR - Patents and Copyrights - Patents in India - Technological and Non-Technological Innovation Process.		6

UNIT III	GOVERNMENT AND NON-GOVERNMENT FUNDING SCHEMES FOR START-UPS	
An introduction to Start-up - Start-ups in India - Procedure for registration of Start-ups - Business Model- Business Plan - Case Studies - Opportunities and Challenges - Funding supports from Government Schemes -MUDRA, TANSEED, NEEDS, PMEGP, UYEGP – Non-Government Schemes - CSR Fund - Angel Investors - Venture Capitalist.		6

UNIT IV		
All the students have to select a minimum of 2 topics from the list given below. They are expected to collect the resources with the help of faculty assigned to them to prepare PPTs for presentation 1. Idea Generation. 2. Innovation Management. 3. Product Development. 4. Business Model Innovation. 5. Organizational Culture and Change Management. 6. Leadership and Innovation. 7. Barriers to Innovation.		9

8. Innovation Marketing. 9. E-Commerce success stories (any one). 10. Role of Start-ups in Higher Education. 11. Professional Networking in Building Brands. 12. How to start a start-up in India.	
UNIT V **EXPOSURE TO INDUSTRY**	
All the students should visit and study the nearby industries, incubation centres, start-ups etc., and select any one to prepare a project report which covers the Name of the Industry/Organization, Introduction of the Industry, Type of the Industry, Scope of the Industry, Plant Layout and Location, Details of Plant and Machineries, Process flow chart, Manufacturing Methods, Process of Manufacturing, Product Manufacturing, Quality Control, Marketing, Product selling - Conclusion.	**18**
Total	**45**

End Semester Examination - Project Exam

Students should be assessed for 100 Marks both by the internal examiner and external examiner appointed by the Chairman Board of Examinations.

Detailed Allocation of Marks

S. No	Description	Marks
Part A i) ii)	Written Examination – Unit –I,II & III Theory Questions 10 questions out of 15 questions (10 x 3 marks = 30 marks) 3 questions either or pattern (3 x 5 marks = 15 marks)	45
Part B i)	Presentation of Industry Visit Project Report	25
ii)	Interaction and Evaluation	30
	TOTAL	**100**

1066235773	INDUSTRIAL TRAINING	SUMMER	C
PROJECT		VACATION	3

Introduction

Industrial training is a crucial component of the diploma engineering curriculum, designed to bridge the gap between theoretical knowledge and practical application. Typically conducted during vacation periods, this two-week training program provides students with hands-on experience in their respective engineering fields. The primary objectives are to enhance practical skills, familiarize students with industry standards, and prepare them for future employment.

Two-week industrial training during vacation periods is an invaluable part of diploma engineering education. It not only equips students with practical skills but also provides a comprehensive understanding of the industry, preparing them for successful engineering careers.

Objectives

1. Practical Exposure: Students gain direct exposure to real-world engineering practices, tools, and technologies.
2. Skill Enhancement: The training helps in developing technical and soft skills that are essential for professional growth.
3. Industry Insight: Students learn about the working environment, operational procedures, and challenges faced by industries.
4. Professional Networking: The training offers opportunities to interact with industry professionals, which can be beneficial for career prospects.
5. Application of Knowledge: It allows students to apply classroom knowledge to solve practical problems, enhancing their understanding and retention of engineering concepts.

Structure of the Training Program

- Orientation: Introduction to the company, its operations, and safety protocols.
- Project Assignment: Students are assigned specific projects or tasks relevant to their field of study.
- Supervision and Mentorship: Industry professionals guide and mentor students throughout the training.
-

1066235773	INDUSTRIAL TRAINING	SUMMER	C
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- Skill Development Workshops: Sessions on technical skills, software tools, and industry best practices.
- Assessment and Feedback: Performance evaluations and constructive feedback to help students improve.

Benefits for Students

- Enhanced Employability: Practical experience makes students more attractive to potential employers.
- Confidence Building: Working in a real-world setting boosts confidence and professional demeanor.
- Clarified Career Goals: Exposure to various roles and responsibilities helps students define their career paths.

Course Outcomes

CO 1: Demonstrate proficiency in using industrial machinery, tools, and software.

CO 2: Able to identify, analyze, and solve engineering problems using industry-standard methods and practices.

CO 3: Gain a comprehensive understanding of industrial manufacturing processes, quality control, and safety practices.

CO 4: Exhibit improved communication, teamwork, and professional behavior in an industrial setting.

CO 5: Apply theoretical concepts learned in their coursework to practical engineering tasks and projects.

Duties Responsibilities of the Faculty Mentor.

One faculty mentor should be assigned for every 30 students by the HOD / Principal. Faculty mentors shall play a crucial role in overseeing and guiding students during their industrial training program in Diploma engineering.

Pre-Training Responsibilities:

1. Orientation and Preparation:
    - Conduct orientation sessions to familiarize students with the objectives, expectations, and guidelines of the industrial training program.

- Assist students in understanding the importance of industrial training in their academic and professional development.

2. Placement Coordination:
   - Collaborate with the placement cell or industry liaison office to secure suitable training placements for students that align with their academic specialization and career interests.
   - Facilitate communication between the institution and host organizations to ensure smooth coordination of training arrangements.
3. Training Plan Development:
   - Help students develop a detailed training plan outlining learning objectives, tasks, and expected outcomes for the training period.
   - Guide students in setting SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goals for their training experience.

During Training Responsibilities:

4. Monitoring and Support:
   - Regularly monitor the progress of students during their industrial training. Maintain communication with both students and industry supervisors to track performance and address any issues that may arise.
   - Provide ongoing support and guidance to students, offering advice on technical challenges, professional conduct, and workplace etiquette.
5. Technical Guidance:
   - Offer technical guidance and mentorship related to the specific engineering discipline or specialization of the students. Help them apply theoretical knowledge to practical situations encountered in the industry.
6. Problem-Solving Assistance:
   - Assist students in overcoming obstacles or challenges encountered during their training. Encourage them to develop problem-solving skills and resilience in real-world engineering scenarios.

7. Feedback and Evaluation:
    - Provide constructive feedback on students' performance based on reports, assessments, and observations gathered from industry supervisors.
    - Evaluate students' achievements in relation to their training objectives and competencies developed during the program.

Post-Training Responsibilities:

8. Reflection and Debriefing:
    - Conduct debriefing sessions with students to reflect on their training experiences, discuss lessons learned, and identify areas for further improvement.
    - Help students articulate their learning outcomes and how these experiences contribute to their professional growth.
9. Documentation and Reporting:
    - Ensure comprehensive documentation of students' training activities, achievements, and feedback received from industry supervisors.
    - Prepare reports summarizing students' performance and submit these to relevant departments or committees for review and assessment.
10. Career Counseling:
    - Provide career guidance and counseling to students based on their industrial training experiences. Assist them in leveraging these experiences for future job applications or further academic pursuits.
11. Continuous Improvement:
    - Collaborate with industry partners to continuously improve the quality and relevance of the industrial training program.
    - Incorporate feedback from students and industry supervisors to enhance the effectiveness of future training placements.

By fulfilling these duties and responsibilities, faculty mentors contribute significantly to the overall educational experience and professional development of Diploma engineering students during their industrial training program.

1066235773	INDUSTRIAL TRAINING	SUMMER	C
PROJECT		VACATION	3

Instructions to the students

Before Starting Industrial Training:

1. **Orientation and Preparation:**
   - Attend orientation sessions conducted by the institution or faculty mentors to understand the objectives, expectations, and guidelines of the industrial training program.
   - Familiarize yourself with the specific policies, procedures, and safety regulations of the host organization where you will be undergoing training.
2. Setting Goals:
   - Set clear and specific goals for your industrial training period. Define what skills, knowledge, and experiences you aim to gain during this time.
   - Discuss your goals with your faculty mentor and seek their guidance in developing a training plan that aligns with your career aspirations.
3. Professional Attire and Conduct:
   - Dress appropriately and professionally according to the standards of the industry and host organization.
   - Maintain a positive attitude, demonstrate punctuality, and adhere to workplace etiquette and norms.

During Industrial Training:

4. Learning and Engagement:
   - Actively engage in all assigned tasks and projects. Seek opportunities to learn new skills and technologies relevant to your field of study.
   - Take initiative in asking questions, seeking clarification, and participating in discussions with supervisors and colleagues.
5. Adaptability and Flexibility:
   - Adapt to the work environment and demonstrate flexibility in handling various responsibilities and challenges that arise during your training.
   - Be open to different roles and tasks assigned to you, as this will broaden your experience and skill set.

6. Professionalism and Communication:
    - Communicate effectively with supervisors, colleagues, and clients as required. Practice clear and concise verbal and written communication.
    - Demonstrate professionalism in all interactions, respecting confidentiality, and adhering to company policies and procedures.
7. Safety and Compliance:
    - Prioritize safety at all times. Familiarize yourself with safety protocols, procedures, and emergency exits in the workplace.
    - Follow all safety guidelines and regulations to ensure your well-being and that of others around you.

After Completing Industrial Training:

8. Reflection and Documentation:
    - Reflect on your training experience. Evaluate what you have learned, the challenges you faced, and how you have grown professionally.
    - Maintain a journal or log documenting your daily activities, achievements, and lessons learned during the training period.
9. Feedback and Evaluation:
    - Seek feedback from your industry supervisor and faculty mentor on your performance and areas for improvement.
    - Use constructive feedback to enhance your skills and competencies for future career opportunities.
10. Career Planning:
    - Use your industrial training experience to inform your career planning and decision-making process.
    - Discuss your career goals and aspirations with your faculty mentor or career counselor for guidance on next steps after completing your diploma.

By following these instructions, Diploma engineering students can make the most of their industrial training experience, gain valuable insights into their chosen field, and prepare themselves effectively for future professional endeavors.

1066235773	**INDUSTRIAL TRAINING**	SUMMER	C
PROJECT		VACATION	3

Attendance Certification

Every student has to get their attendance certified by the industrial supervisor in the prescribed form supplied to them. Students have also to put their signature on the form and submit it to the institution faculty mentor.

Training Reports

The students have to prepare reports: The report in the form of a diary to be submitted to the concerned faculty mentor of the institution. This will be reviewed while awarding Internal assessment.

Industrial Training Diary

Students are required to maintain the record of day-to-day work done. Such a record is called Industrial training Diary. Students have to write this report regularly. All days for the week should be accounted for clearly giving attendance particulars (Presence, absence, Leave, Holidays etc.). The concern of the Industrial supervisor is to periodically check these progress reports.

In addition to the diary, students are required to submit a comprehensive report on training with details of the organisation where the training was undergone after attestation by the supervisors. The comprehensive report should incorporate study of plant / product / process / construction along with intensive in-depth study on any one of the topics such as processes, methods, tooling, construction and equipment, highlighting aspects of quality, productivity and system. The comprehensive report should be completed in the last week of Industrial training. Any data, drawings etc. should be incorporated with the consent of the Organisation.

1066235773	**INDUSTRIAL TRAINING**	SUMMER	C
PROJECT		VACATION	3

Scheme of Evaluation

Internal Assessment

Students should be assessed for 40 Marks by industry supervisor and polytechnic faculty mentor for the Internal Assessment.

Sl. No.	Description	Marks
A	Punctuality and regularity. (Attendance)	10
B	Level / proficiency of practical skills acquired. Initiative in learning / working at site	10
C	Self expression / communication skills. Interpersonal skills / Human Relation.	10
D	Report and Presentation.	10
	Total	40

End Semester Examination - Project Exam

Students should be assessed for 100 Marks both by the internal examiner and external examiner appointed by the Chairman Board of Examinations after the completion of industrial training. The marks scored will be converted to 60 marks for the End Semester Examination.

1066235773	INDUSTRIAL TRAINING	SUMMER	C
PROJECT		VACATION	3

Scheme of Evaluation

Sl. No.	Description	Marks
A	Daily Activity Report and Attendance certificate.	20
B	Comprehensive report on Internship, Relevant Internship Certificate from the concerned department.	30
C	Presentation by the student at the end of the Internship.	30
D	Viva Voce	20
Total		100

VI SEMESTER

6000236111	ADVANCED ENGINEERING MATHEMATICS	L	T	P	C
THEORY		3	0	0	3

Introduction

Mathematics is essential for engineering students to understand core engineering subjects. It provides the framework for engineers to solve problems in engineering domains. This course is designed to bridge the gap between diploma mathematics and B.E/B.Tech mathematics in matrix algebra, differential calculus, vector calculus, differential equations, and Laplace transforms.

Course Objectives

The objective of this course is to enable the students to

1. Understand the concepts of eigen-values and eigen-vectors of matrices.
2. Learn the notation of partial differentiation and determine the extremities of functions of two variables.
3. Acquire knowledge in vector calculus which is significantly used to solve engineering problems.
4. Formulate and solve differential equations.
5. Understand Laplace transformation and its engineering applications.

Course Outcomes

After successful completion of this course, the students should be able to

CO1: Find eigenvalues and corresponding eigenvectors of a square matrix.

CO2: Apply the knowledge of partial differentiation to evaluate Jacobian and extremities of two variable functions.

CO3: Evaluate the gradient of a scalar field and the divergence and curl of vector fields.

CO4: Solve ordinary differential equations using various techniques.

CO5: Use Laplace transforms to solve first-order ordinary differential equations.

Pre-requisites

Matrices, Determinants, Differentiation, Integration and Vector Algebra

6000236111	ADVANCED ENGINEERING MATHEMATICS	L	T	P	C
THEORY		3	0	0	3

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	3	2	1	1	1	3
CO2	3	3	2	1	1	1	3
CO3	3	3	2	1	1	1	3
CO4	3	3	2	1	1	1	3
CO5	3	3	2	1	1	1	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- A theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome-based.
- All demonstrations/Hands-on practices might be under a simulated environment.
- Use an inducto-deductive approach to achieve the desired learning objectives.
- Use open-ended questions to nurture the problem-solving and reasoning skills among students.
- Support and guide the students for self-study.
- State the need for mathematics with engineering studies and provide real-life examples.

6000236111	ADVANCED ENGINEERING MATHEMATICS	L	T	P	C
THEORY		3	0	0	3

Assessment Methodology

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Written test (Two units)	Written test (Another Two units)	Quiz MCQ (Online / Offline)	Model Examination	Written Examination
Duration	2 Periods	2 Periods	1 Hour	3 Hours	3 Hours
Exam Marks	50	50	60	100	100
Converted to	15	15	5	20	60
Marks	15		5	20	60
Tentative Schedule	6th Week	12th Week	13-14th Week	16th Week	

CA1 and CA2: Assessment written test should be conducted for 50 Marks for two units. The marks scored will be converted to 15 Marks. Best of one will be considered for the internal assessment of 15 Marks.

CA1and CA2, Assessment test should be conducted for two units as below.

(5 X 10 Marks = 50 Marks).

Eight questions will be asked, students should write Five questions. Each unit Four questions can be asked. Each question may have subdivisions. Maximum two subdivisions shall be permitted.

CA3: 60 MCQ can be asked by covering the entire portion. It may be conducted by Online / Offline. The answer scripts of every student (online / offline) for this assessment should be

kept for records and future verification. The marks scored should be converted to 5 marks for the internal assessment.

CA4: Model examination should be conducted as per the end semester question pattern. The marks should be converted to 20 marks for the internal assessment.

Question Pattern:

Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

1064236111	ADVANCED ENGINEERING MATHEMATICS	L	T	P	C
THEORY		3	0	0	3

Unit I - EIGENVALUES AND EIGENVECTORS	
Characteristic equation – Eigen-values of 22 and 33 real matrices – Eigen-vectors of 22 real matrices – Properties of eigen-values (excluding proof) – Cayley-Hamilton theorem (excluding proof) – Simple problems.	7
Unit II - FUNCTIONS OF SEVERAL VARIABLES	
Partial derivatives of two variable and three variable functions (up to second order) – Homogeneous functions and Euler's theorem (excluding proof) – Jacobian matrix and determinant – Maxima and minima of functions of two variables – Simple problems.	7
Unit III - VECTOR CALCULUS	
Scalar field and Vector field – Vector differential operator – Gradient of a scalar field – Directional derivative – Divergence and curl of a vector field (excluding properties) – Solenoidal and irrotational vector fields – Simple problems.	7
Unit IV - DIFFERENTIAL EQUATIONS	
Differential equation – Formation – Order and degree – Solution of a differential equation – Equations of first order and first degree – Variable separable method – Leibnitz's Linear equations – Second order equations of the form aD2+bD+cy=enx where a,b,c and n are constants and the auxiliary equation am2+bm+c=0 has only real roots) – Complementary function – Particular integral – General solution – Simple problems.	7
Unit V - LAPLACE TRANSFORMS	
Definition of Laplace transform – Laplace transforms of standard functions - Linearity and change of scale property (excluding proofs) – First shifting property – Laplace transforms of derivatives – Properties (excluding proofs) – Inverse Laplace transforms – Properties (excluding proofs) – Solving first order ordinary differential equation using Laplace transforms – Simple problems.	7
Revision + Test	10
TOTAL HOURS	45

6000236111	ADVANCED ENGINEERING MATHEMATICS	L	T	P	C
THEORY		3	0	0	3

Suggested list of Students Activity,

- Demonstrate the applications of eigen-values in stability analysis, decouple of three-phase systems and vibration analysis.
- Demonstrate maxima and minima of two variable functions using GeoGebra graphing calculator.
- Demonstrate solenoidal vector field and irrotational vector field using engineering applications.
- Demonstrate the applications of differential equations in solving engineering problems.
- Presentation /Seminars by students.
- Quizzes.

Reference Books:

1. John Bird, Higher Engineering Mathematics, Routledge, 9th Edition, 2021.
2. Grewal, B.S., Higher Engineering Mathematics, Khanna Publishers, 42nd Edition, 2012.
3. Arumugam, S., Thangapandi Isaac, A., & Somasundaram, A., Differential Equations and Applications, Yes Dee Publishing Pvt. Ltd., 2020.
4. Duraipandian, P., & Kayalal Pachaiyappa, Vector Analysis, S Chand and Company Limited, 2014.
5. Narayanan, S., & Manicavachagom Pillai T.K., Calculus Volume I and II, .Viswanathan Publishers Pvt. Ltd., 2007.

6000236111	ADVANCED ENGINEERING MATHEMATICS	L	T	P	C
THEORY		3	0	0	3

Web Reference

1. https://www.khanacademy.org/math/
2. https://www.mathportal.org/
3. https://openstax.org/subjects/math/
4. https://www.mathhelp.com/
5. https://www.geogebra.org/
6. https://www.desmos.com/
7. https://phet.colorado.edu/

END SEMESTER QUESTION PATTERN - Theory Exam

Duration: 3 Hours. **Maximum Marks: 100**

Note: Answer Ten questions by selecting Two questions from each unit. Each question carries 10 marks.

Instruction to the question setters

Each unit should have four questions. Each question carries 10 Marks. Each question may have two subdivisions only.

6000236112	ENTREPRENEURSHIP	L	T	P	C
THEORY		3	0	0	3

Introduction

Development of a diploma curriculum is a dynamic process responsive to the society and reflecting the needs and aspirations of its learners. Fast changing society deserves changes in educational curriculum particularly to establish relevance to emerging socio-economic environments; to ensure equity of opportunity and participation and finally promote concern for excellence. In this context the course on entrepreneurship and start ups aims at instilling and stimulating human urge for excellence by realizing individual potential for generating and putting to use the inputs relevant to social prosperity and thereby ensuring good means of living for every individual, providing jobs and developing the Indian economy.

Course Objectives

After completing this subject, the student will be able to

- Acquire entrepreneurial spirit and resourcefulness
- Familiarize Acquire knowledge about the business idea and product selection
- Analyze the banking and financial institutions
- Understand the pricing policy and cost analysis
- Get knowledge about the business plan preparation

Course Outcomes

CO1: Explain the process of entrepreneurship

CO2: Analyse the importance of generation of ideas and product selection

CO3: Familiarization of various financial and non financial schemes

CO4: Acquire various cost components to arrive pricing of the product

CO5: Learn the preparation of project feasibility report

Pre-requisites

Knowledge of basics of Engineering and Industrial engineering

6000236112	ENTREPRENEURSHIP	L	T	P	C
THEORY		3	0	0	3

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	-	-	-	-	3	1	3
CO2	-	-	-	-	3	3	3
CO3	-	-	-	1	-	3	2
CO4	-	1	3	3	2	3	2
CO5	-	2	3	3	3	3	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- Engage and Motivate: Instructors should actively engage students to boost their learning confidence.
- Real-World Relevance: Incorporate relatable, real-life examples and applications to help students understand and appreciate course concepts.
- Interactive Learning: Utilize demonstrations and plan interactive student activities for an engaging learning experience.
- Application-Based Learning: Employ a theory-demonstrate-practice- activity strategy throughout the course to ensure outcome-driven learning and employability.
- Simulation and Real-World Practice: Conduct demonstrations and hands-on activities in a simulated environment, transitioning to real- world scenarios when possible.

6000236112	ENTREPRENEURSHIP	L	T	P	C
THEORY		3	0	0	3

Assessment Methodology

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Written test (Two units)	Written test (Another Two units)	Quiz MCQ (Online / Offline)	Model Examination	Written Examination
Duration	2 Periods	2 Periods	1 Hour	3 Hours	3 Hours
Exam Marks	50	50	60	100	100
Converted to	15	15	5	20	60
Marks	15		5	20	60
Tentative Schedule	6th Week	12th Week	13-14th Week	16th Week	

CA1 and CA2: Assessment written test should be conducted for 50 Marks for two units. The marks scored will be converted to 15 Marks. Best of one will be considered for the internal assessment of 15 Marks.

CA1and CA2, Assessment test should be conducted for two units as below.

(5 X 10 Marks = 50 Marks).

Eight questions will be asked, students should write Five questions. Each unit Four questions can be asked. Each question may have subdivisions. Maximum two subdivisions shall be permitted.

CA3: 60 MCQ can be asked by covering the entire portion. It may be conducted by Online / Offline. The answer scripts of every student (online / offline) for this assessment should be

kept for records and future verification. The marks scored should be converted to 5 marks for the internal assessment.

CA4: Model examination should be conducted as per the end semester question pattern. The marks should be converted to 20 marks for the internal assessment.

Question Pattern:

Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

6000236112	ENTREPRENEURSHIP	L	T	P	C
THEORY		3	0	0	3

Syllabus Contents

Unit I - Entrepreneurship – Introduction and Process	
Concept of entrepreneurship - Importance, Myths about Entrepreneurship, Pros and Cons of Entrepreneurship, Process of Entrepreneurship, , Competencies and characteristics of an entrepreneur -, Ethical Entrepreneurship, Entrepreneurial Values and Attitudes, Creativity, Innovation and entrepreneurship- Entrepreneurs - as problem solvers, Mindset of an employee and an entrepreneur, - Risk Taking-Concepts	7
Unit II - Business Idea	
Types of Business: Manufacturing, Trading and Services, Stakeholders: sellers, vendors and consumers and Competitors, E- commerce Business Models, business idea generation -Types of Resources - Human, Capital and Entrepreneurial tools and resources, etc.,- setting business goals- Patent, copyright and Intellectual property rights, Customer Relations and Vendor Management, -Business Ideas vs. Business Opportunities, Opportunity – SWOT ANALYSIS of a business idea - Business Failure – causes and remedies.- Types of business risks,	7
Unit III - Banking	
Size and capital based classification of business enterprises- Role of financial institutions, Role of Government policy, Entrepreneurial support systems, Incentive schemes for state government, and Incentive schemes for Central governments.	7
Unit IV - Pricing and Cost Analysis	
Types of Costs - Variable - Fixed- Operational Costs - Break Even Analysis - for single product or service, -financial Business Case Study, Understand the meaning and concept of the term Cash Inflow and Cash Outflow- Pricing- Calculate Per Unit Cost of a single product, , Understand the importance and preparation of Income Statement, Prepare a Cash Flow Projection- Factors	7

affecting pricing.- GST.	
Unit V - Business Plan Preparation	
Feasibility Report – Technical analysis, financial analysis- Market Research - Concept, Importance and Process- tools for market research- Market Sensing and Testing, Marketing and Sales strategy, Digital marketing, Branding - Business name, logo, tag line, Promotion strategy, Business Plan Preparation, -Concept and Importance, , Execution of Business Plan.	7
Revision + Test	10
TOTAL HOURS	45

Suggested list of Students Activity

1. Students can explore app development or web design. They'll learn about technology, user experience, and marketing.
2. Hosting events, workshops, or conferences allows students to practice project management, networking, and marketing skills.
3. Encourage students to address social or environmental issues through innovative business solutions. This fosters empathy and creativity.
4. Part of entrepreneurship clubs or organizations provides networking opportunities, mentorship, and exposure to real-world challenges.
5. Competitions like business plan contests or pitch events allow students to showcase their ideas and receive feedback.
6. Students can create and sell handmade crafts, artwork, or other products. This teaches them about production, pricing, and customer relations.
7. Students can provide consulting services in areas they're knowledgeable about, such as social media marketing or financial planning.
8. Encourage students to create and manage their own small business or offer freelance services. This hands-on experience helps them understand various aspects of entrepreneurship.

6000236112	ENTREPRENEURSHIP	L	T	P	C
THEORY		3	0	0	3

Text and Reference Books:

1. G.K. Varshney, Fundamentals of Entrepreneurship, Sahitya Bhawan Publications, Agra., 2019.
2. H.Nandan, Fundamentals of Entrepreneurship, Prentice Hall India Learning Private Limited, Third Edition, 2013.
3. R.K. Singal, Entrepreneurship Development & Management, S K Kataria and Sons, 2013.

Web Reference:

- https://ocw.mit.edu/courses/15-390-new-enterprises-spring-2013/resources/lecture-1/
- https://onlinecourses.nptel.ac.in/noc20_ge08/preview

END SEMESTER QUESTION PATTERN - Theory Exam

Duration: 3 Hours. **Maximum Marks: 100**

Note: Answer Ten questions by selecting Two questions from each unit. Each question carries 10 marks.

Instruction to the question setters

Each unit should have four questions. Each question carries 10 Marks. Each question may have two subdivisions only.

6000236113	PROJECT MANAGEMENT	L	T	P	C
THEORY		3	0	0	3

Introduction

Project management is the systematic application of knowledge, skills, tools, and techniques to project activities to meet specific project requirements. It involves planning, organizing, and managing resources to achieve project goals within defined scope, time, and budget constraints. Project management encompasses several key processes and phases, including initiation, planning, execution, monitoring and controlling, and closing. It is essential across various industries to ensure projects are completed successfully, efficiently, and effectively, aligning with organizational objectives and stakeholder expectations. Project managers play a crucial role in leading teams, managing risks, ensuring quality, and communicating with stakeholders to drive project success.

Course Objectives

After completing this subject, the student will be able,

- To understand the concept, characteristics and elements of projects.
- To understand the stages in Project Life Cycle.
- To appreciate the need for Project Portfolio Management System.
- To know the considerations in choosing appropriate project management structure.
- To understand the components of techno-economic feasibility studies.
- To know about the detailed project report
- To learn about project constraints.
- To understand the techniques of evaluation.
- To get insight into the Social Cost Benefit Analysis Method.
- To know how to construct project networks using PERT and CPM.
- To learn how to crash project networks
- To understand the meaning of project appraisal.
- To understand the meaning of project audits.
- To know the qualities of an effective project manager.
- To understand the stages in the Team Development model.

6000236113	PROJECT MANAGEMENT	L	T	P	C
THEORY		3	0	0	3

Course Outcomes

CO 1: Explain the principles of Project Management

CO 2: Create and manage project schedules.

CO 3: Create structure and manage the project commitments.

CO 4: Acquire to Gain enterprise support.

CO 5: Prepare a Detailed Project Report (DPR).

Pre-requisites

Basic Knowledge.

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	-	-	-	-	3	1
CO2	3	-	-	-	1	3	1
CO3	3	-	-	1	1	3	1
CO4	3	-	-	-	1	3	1
CO5	3	-	-	1	1	3	1

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their curiosity to learn.
- Implement task-based learning activities where students work on specific tasks or projects.
- Incorporate technology tools and resources, such as online platforms, interactive multimedia, and virtual communication tools, to enhance engagement and provide additional practice opportunities.
- All demonstrations/Hand-on practices may be followed in the real environment as far as possible.

6000236113	PROJECT MANAGEMENT	L	T	P	C
THEORY		3	0	0	3

Assessment Methodology

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Written test (Two units)	Written test (Another Two units)	Quiz MCQ (Online / Offline)	Model Examination	Written Examination
Duration	2 Periods	2 Periods	1 Hour	3 Hours	3 Hours
Exam Marks	50	50	60	100	100
Converted to	15	15	5	20	60
Marks	15		5	20	60
Tentative Schedule	6th Week	12th Week	13-14th Week	16th Week	

CA1 and CA2: Assessment written test should be conducted for 50 Marks for two units. The marks scored will be converted to 15 Marks. Best of one will be considered for the internal assessment of 15 Marks.

CA1and CA2, Assessment test should be conducted for two units as below.

(5 X 10 Marks = 50 Marks).

Eight questions will be asked, students should write Five questions. Each unit Four questions can be asked. Each question may have subdivisions. Maximum two subdivisions shall be permitted.

CA3: 60 MCQ can be asked by covering the entire portion. It may be conducted by Online / Offline. The answer scripts of every student (online / offline) for this assessment should be

kept for records and future verification. The marks scored should be converted to 5 marks for the internal assessment.

CA4: Model examination should be conducted as per the end semester question pattern. The marks should be converted to 20 marks for the internal assessment.

Question Pattern:

Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

6000236113	PROJECT MANAGEMENT	L	T	P	C
THEORY		3	0	0	3

Unit I - Project Management – An Overview, Project Portfolio Management System and Structure, Steps in Defining Project and Project Delays	
Project – Classification – Importance of Project Management – An Integrated Approach – Project Portfolio Management System – The Need – Choosing the appropriate Project Management Structure: Organizational considerations and project considerations – steps in defining the project – project Rollup – Process breakdown structure – Responsibility Matrices – External causes of delay and internal constraints.	7
Unit II - Various Stages and Components of Project Feasibility Studies, Phases of a Project, Stages in Project Life Cycle and Project Constraints	
Project feasibility studies - Opportunity studies, General opportunity studies, specific opportunity studies, pre-feasibility studies, functional studies or support studies, feasibility study – components of project feasibility studies – Managing Project resources flow – project planning to project completion: Pre-investment phase, Investment Phase and operational phase – Project Life Cycle – Project constraints.	7
Unit III - Project Evaluation under Certainty and Uncertainty, Project Evaluation, Commercial and Social Cost Benefit Analysis	
Project Evaluation under certainty - Net Present Value (Problems - Case Study), Benefit Cost Ratio, Internal Rate of Return, Urgency, Payback Period, ARR – Project Evaluation under uncertainty – Methodology for project evaluation – Commercial vs. National Profitability – Social Cost Benefit Analysis, Commercial or National Profitability, social or national profitability.	7
Unit IV - Developing Project Network using PERT and CPM, Project Appraisal and Control Process.	

Developing a Project Plan - Developing the Project Network – Constructing a Project Network (Problems) – PERT – CPM – Crashing of Project Network (Problems - Case Study) – Resource Leveling and Resource Allocation – how to avoid cost and time overruns – Steps in Project Appraisal Process – Project Control Process – Control Issues – Project Audits – the Project Audit Process – project closure – team, team member and project manager evaluations.	7
Unit V- Project Managing Versus Leading of Project, Qualities of Project Manager and Managing Project Teams, Team Building Models and Performance Teams and Team Pitfalls.	
Managing versus leading a project - managing project stakeholders – social network building (Including management by wandering around) – qualities of an effective project manager – managing project teams – Five Stage Team Development Model – Situational factors affecting team development – project team pitfalls.	7
Revision + Test	10
TOTAL HOURS	45

Suggested list of Students Activity,

Project Simulation and Role-Playing:

- Activity: Participate in simulated project scenarios where students take on different roles within a project team (e.g., project manager, team member, stakeholder).
- Purpose: This helps students understand the dynamics of project management, including leadership, communication, and team collaboration.

Case Study Analysis:

- Activity: Analyze real-world case studies of successful and failed projects.
- Purpose: This activity enables students to apply theoretical knowledge to practical situations, identify best practices, and learn from the challenges and solutions implemented in real projects.

Project Plan Development:

- Activity: Develop a comprehensive project plan for a hypothetical or real project, including scope, schedule, budget, risk management, and quality management plans.
- Purpose: This allows students to practice creating detailed and structured project plans, honing their skills in planning and organizing project activities.

6000236113	PROJECT MANAGEMENT	L	T	P	C
THEORY		3	0	0	3

Group Project:

- Activity: Work in teams to manage a project from initiation to closure, simulating a real project environment.
- Purpose: Group projects help students learn how to work collaboratively, manage group dynamics, and apply project management tools and techniques in a team setting.

Project Management Software Training:

- Activity: Gain hands-on experience with project management software such as Microsoft Project, Asana, or Trello.
- Purpose: This activity equips students with practical skills in using technology to plan, track, and manage project tasks and resources efficiently.

Reference Books:

1. Clifford F. Gray And Erik W. Larson, Project Management – The Managerial Process, Tata Mcgraw Hill.
2. Dragan Z. Milosevic, Project Management Toolbox: Tools And Techniques For The Practicing Project Manager,
3. Gopalakrishnan, P/ Ramamoorthy, V E, Textbook Of Project Management, Macmillan India. Ltd.
4. Harold Kerzner, Project Management: A Systems Approach To Planning, Scheduling, And Controlling, Eighth Edition, John Wiley & Sons
5. Jason Charvat, Project Management Methodologies: Selecting, Implementing, And Supporting Methodologies And Processes For Projects, John Wiley & Sons
6. Kevin Forsberg, Ph.D, Hal Mooz, Visualizing Project Management: A Model For Business And Technical Success, Second Edition, Pmp And Howard Cotterman, John Wiley & Sons.

6000236113	PROJECT MANAGEMENT	L	T	P	C
THEORY		3	0	0	3

Web Reference

https://youtu.be/pc9nvBsXsuM

NPTEL Courses

https://youtu.be/PqQqTAu_FiM

END SEMESTER QUESTION PATTERN - Theory Exam

Duration: 3 Hours. **Maximum Marks: 100**

Note: Answer Ten questions by selecting Two questions from each unit. Each question carries 10 marks.

Instruction to the question setters

Each unit should have four questions. Each question carries 10 Marks. Each question may have two subdivisions only.

6000236114	FINANCE FUNDAMENTALS	L	T	P	C
THEORY		3	0	0	3

Introduction

This course gives a deep insight into the finance fundamentals such as money management and the process of acquiring needed funds. It also encompasses the oversight, creation, and study of money, banking, credit, investments, assets, liabilities that make up financial systems and improves overall financial literacy.

Course Objectives

The objective of this course is to

1. Identify different ways to save money for future
2. Understand various techniques to raise capital
3. Get acquainted with the essential terminologies used in finance language
4. Get exposed to different types of budgeting
5. Instill the concept of costing and its impact on profitability

Course Outcomes

After successful completion of this course, the students should be able to

CO1: Manage financial resources effectively to achieve personal goals

CO2: Explain the procedure for Business Funding

CO3: Exhibit financial literacy through the usage of different terminologies appropriate to the context

CO4: Differentiate the types of budgeting and allocate the resources

CO5: Apply the idea of marginal costing in decision making

Pre-requisites

Knowledge of basic mathematics

6000236114	FINANCE FUNDAMENTALS	L	T	P	C
THEORY		3	0	0	3

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	-	-	-	1	-	2
CO2	3	-	-	-	1	-	2
CO3	3	-	-	-	1	-	2
CO4	3	-	-	-	1	-	2
CO5	3		-	-	1	-	2

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- Engage and Motivate: Instructors should actively engage students to boost their learning confidence.
- Real-World Relevance: Incorporate relatable, real-life examples and applications to help students understand and appreciate course concepts.
- Interactive Learning: Utilize demonstrations and plan interactive student activities for an engaging learning experience.
- Application-Based Learning: Employ a theory-demonstrate-practice- activity strategy throughout the course to ensure outcome-driven learning and employability.
- Simulation and Real-World Practice: Conduct demonstrations and hands-on activities in a simulated environment, transitioning to real- world scenarios when possible.

6000236114	FINANCE FUNDAMENTALS	L	T	P	C
THEORY		3	0	0	3

Assessment Methodology

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Written test (Two units)	Written test (Another Two units)	Quiz MCQ (Online / Offline)	Model Examination	Written Examination
Duration	2 Periods	2 Periods	1 Hour	3 Hours	3 Hours
Exam Marks	50	50	60	100	100
Converted to	15	15	5	20	60
Marks	15		5	20	60
Tentative Schedule	6th Week	12th Week	13-14th Week	16th Week	

CA1 and CA2: Assessment written test should be conducted for 50 Marks for two units. The marks scored will be converted to 15 Marks. Best of one will be considered for the internal assessment of 15 Marks.

CA1and CA2, Assessment test should be conducted for two units as below.

(5 X 10 Marks = 50 Marks).

Eight questions will be asked, students should write Five questions. Each unit Four questions can be asked. Each question may have subdivisions. Maximum two subdivisions shall be permitted.

6000236114	FINANCE FUNDAMENTALS	L	T	P	C
THEORY		3	0	0	3

CA3: 60 MCQ can be asked by covering the entire portion. It may be conducted by Online / Offline. The answer scripts of every student (online / offline) for this assessment should be kept for records and future verification. The marks scored should be converted to 5 marks for the internal assessment.

CA4: Model examination should be conducted as per the end semester question pattern. The marks should be converted to 20 marks for the internal assessment.

Question Pattern:

Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

6000236114 THEORY	FINANCE FUNDAMENTALS	L 3	T 0	P 0	C 3

UNIT I - PERSONAL FINANCE	
Personal Finance – Meaning, Objectives and advantages – Individual Perspective – Family Perspective – Time Value of Money – Personal Savings: Meaning, Different modes of Saving – Bank Deposit, Online Investments, Insurance, Stocks, Gold, Real Estate – Returns Vs Risk – Financial Discipline – Setting Alerts for commitments (With Real time Examples).	7
UNIT II - BUSINESS FUNDING	
Sources: Personal Savings – Borrowings - Venture Capital – Venture Capital Process – Commercial Banks – Government Grants and Scheme.	7
UNIT III - FINANCE LANGUAGE	
Capital – Drawing – Income – Expenditure – Revenue Vs Capital Items – Assets – Fixed Assets – Current Assets – Fictitious Assets – Liabilities – Long-term Liabilities – Current Liabilities – Internal Liabilities – External Liabilities – Shareholders fund: Equity Share capital, Preference Share Capital, Reserve & Surplus – Borrowings: Debentures, Bank Loan, Other Loan – Depreciation – Reserve Vs Provision.	7
UNIT IV - BUDGETING	
Budgetary Control – Meaning – Preparation of various budgets – Purchase budget – Sales Budget – Production budget – Cash Budget – Flexible budgets. (With Problems)	7
UNIT V - MARGINAL COSTING	
Marginal Costing – Meaning – Marginal Costing Vs Absorption Costing – Concepts of Variable Cost, Fixed Cost and Contribution – PV Ratio – Break Even Point – Margin of Safety – Key Factor – Application of Marginal Costing in decision making – Make or Buy – Shutdown or Continue – Exploring New Markets (With Problems)	7
Revision + Test	10

6000236114	FINANCE FUNDAMENTALS	L	T	P	C
THEORY		3	0	0	3

Suggested list of Students Activity,

Financial Statement Analysis:

- Activity: Analyze and interpret financial statements, including balance sheets, income statements, and cash flow statements of different companies.
- Purpose: This activity helps students understand the financial health and performance of organizations, developing skills in financial analysis and critical thinking.

Investment Portfolio Management:

- Activity: Create and manage a simulated investment portfolio, making decisions on asset allocation, stock selection, and diversification.
- Purpose: This allows students to apply theoretical concepts in a practical setting, learning how to evaluate investment opportunities and manage financial risk.

Case Study Analysis:

- Activity: Examine real-world case studies involving financial decisions made by companies, such as capital budgeting, mergers and acquisitions, and financial restructuring.
- Purpose: Case studies provide insights into the application of finance principles in business scenarios, enhancing problem-solving and decision-making skills.

Classroom Discussions and Debates:

- Activity: Participate in discussions and debates on current financial issues, market trends, and economic policies.
- Purpose: Engaging in discussions helps students stay informed about the latest developments in finance, develop their communication skills, and form well-rounded opinions on financial matters.

6000236114	FINANCE FUNDAMENTALS	L	T	P	C
THEORY		3	0	0	3

Reference Books:

1. Banking Theory, Law & Practice - Dr.L.Natarajan, Margham Publications.
2. Corporate Accounting by T.S.Reddy and Dr.A.Murthy, Margham Publications.
3. Management Accounting by T.S.Reddy and Dr.Y.Hariprasd Reddy, Margham Publications.
4. Cost Accounting by T.S.Reddy and Dr.Y.Hariprasd Reddy, Margham Publications.

END SEMESTER QUESTION PATTERN - Theory Exam

Duration: 3 Hours. **Maximum Marks: 100**

Note: Answer Ten questions by selecting Two questions from each unit. Each question carries 10 marks.

Instruction to the question setters

Each unit should have four questions. Each question carries 10 Marks. Each question may have two subdivisions only.

1066236115	GARMENT INDUSTRY MANAGEMENT	L	T	P	C
THEORY		3	0	0	3

Introduction

Industrial management also involves studying the performance of machines as well as people. Specialists are employed to keep machines in good working condition and to ensure the quality of their production. The flow of materials through the plant is supervised to ensure that neither workers nor machines are idle.

Course Objectives

The objective of this course is to enable the student to

1. Learn about Management & Ownership
2. Learn about Joint stock company
3. Know the Training, Recruitment & HRM
4. Learn about Plant layout
5. Learn about Safety Management
6. Know the concepts of Garment Export management
7. Study about Quality management

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Explain the working of business environment.

CO2: Explain the management thoughts, its evolution and functions.

CO3: Describe about the concept of safety management.

CO4: Apply the knowledge of Export promotion council procedure in garment export unit.

CO5: Apply the knowledge of quality management principles in manufacturing

1066236115	GARMENT INDUSTRY MANAGEMENT	L	T	P	C
THEORY		3	0	0	3

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2		2	2	2
CO2	3	2	2			2	2
CO3	3	2	2			2	2
CO4	3	2	2			2	
CO5	3	2	2		2	2	2

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset. Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

1066236115	GARMENT INDUSTRY MANAGEMENT	L	T	P	C
THEORY		3	0	0	3

Assessment Methodology

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Written test (Two units)	Written test (Another Two units)	Quiz MCQ (Online / Offline)	Model Examination	Written Examination
Duration	2 Periods	2 Periods	1 Hour	3 Hours	3 Hours
Exam Marks	50	50	60	100	100
Converted to	15	15	5	20	60
Marks	15		5	20	60
Tentative Schedule	6th Week	12th Week	13-14th Week	16th Week	

- **CA1 and CA2:** Assessment written test should be conducted for 50 Marks for two units. The marks scored will be converted to 15 Marks. Best of one will be considered for the internal assessment of 15 Marks.

  CA1and CA2, Assessment test should be conducted for two units as below.

  PART A: (5 X 10 Marks = 50 Marks).

  Eight questions will be asked; students should write Five questions. Each unit Four questions can be asked. Each question may have subdivisions. Maximum two subdivisions shall be permitted.
- **CA3:** 60 MCQ can be asked by covering the entire portion. It may be conducted by Online / Offline. The marks scored should be converted to 5 marks for the internal assessment.
- **CA4:** Model examination should be conducted as per the end semester question pattern. The marks should be converted to 20 marks for the internal assessment.

  Question Pattern:

  Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

1066236115	GARMENT INDUSTRY MANAGEMENT	L	T	P	C
THEORY		3	0	0	3

Four questions will be asked from every unit, students should write any two questions. The question may have two subdivisions only.

Question Pattern - Model Examination and End Semester Examination - Theory Exam

PART- A (5 X 20 Marks = 100 Marks)

Note: Answer Ten questions by selecting two questions from each unit. Each question carries 10 marks each.

1066236115	GARMENT INDUSTRY MANAGEMENT	L	T	P	C
THEORY		3	0	0	3

Unit I	MANAGEMENT AND OWNERSHIP	
	Management: Definitions of management - administration and organization - Principles of management - Functions of management (Forecasting, Planning, Organizing, Staffing, Directing, Coordinating, Controlling and Decision Making). Concept and Advantages of Ownership – Concept of partnership – Join stock company (Private limited & Public limited)	7
Unit II	**HUMAN RESOURCE MANAGEMENT**	
	HRM – Importance - Man Power Planning, Job Analysis and Job Evaluation Recruitment – Sources, Selection Process in Recruitment. Training – Importance and types of Training Process. Wages – Its Components - Method of Wage Payment - Incentives – Types, Merits and Demerits. Labour Welfare Activities – Role of Labour Welfare Officer - Labour grievances - Causes of Grievance - Redressal procedures.	7
Unit III	**PLANT LAYOUT & SAFETY MANAGEMENT**	
	Selection of site - Various factors of site selection for various textile industries. Industrial Buildings – Types. Plant layout - Process, Product, Combination - their merits and demerits. Suitable Layout for Garment industries. Industrial safety - Causes of accidents, preventive measures - Guards and safety devices in Garment industry - Types of fire and fire prevention.	7
Unit IV	**EXPORT MANAGEMENT**	
	Various export promotion measures by government of India. Functions of TEXPROCIL, AEPC, PEDEXIL, HEPC and Textile committee - Export procedure - Export incentives. Importance of Shipping bill and bill of lading. Export finance – pre shipment finance and post shipment finance. Letter of Credit. Export pricing-Ex factory, Free On Truck (FOT),	7

Free On Board (FOB), Cost & Freight(C&F), Cost Insurance Freight (CIF) & Franco pricing.		
Unit V	**QUALITY MANAGEMENT**	
Various elements (clauses) of ISO 9000 Standards - Advantages of ISO 9000 certification – ISO 140000 - Principle and advantages of SA 8000 - Basic elements of TQM - Quality improvement program by kaizen - Define the terms in 5 S - quality principles of 5 S system - concept of quality circles		7
TEST & REVISON		**10**
TOTAL HOURS		**45**

1066236115	GARMENT INDUSTRY MANAGEMENT	L	T	P	C
THEORY		3	0	0	3

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative Management theories.

Reference

1. O P Khanna – Industrial Engineering and Management, Dhanpa Rai Pub (P)Ltd., New Delhi
2. M M Sheriff – Industrial Management & Entrepreneurship, M/S Premier Publication House, Hyderabad
3. M ZakriaBaig Industrial Management and Entrepreneurship, First Edition, 1995, Hyderabad.
4. K Babu Rao Industrial Management and Entrepreneurship Falcon publishers
5. V Ramesh BabuIndustrial Engineering in Apparel Production Wood Head publishing
6. Principles Of Management P.C.Tripathi Tata Mcgrow Publishing Company Ltd, New Delhi 2001
7. Management Of Textiles Dudeg A.V.D Trade Press, Textile Indistry ,Ahemadabad 1981
8. Industrial Eng. And Management Balasundaram.K Sri. Ramalinga sowdeswari Publications, Coimbature. 2005

1066236241	FASHION DRAPING	L	T	P	C
PRACTICUM		1	0	4	3

Introduction

Draping is an art of wrapping the dress materials on the body. The same technique is extended to produce required patterns of basic and complicated styles of garment. This subject deals with the preparation of patterns of various parts of the garment without drawing tools, measurements but with the aid of relevant dummy or mannequin.

Course objectives

At the end of the study of VI Semester the student will be able to

1. Understand the Draping tools & Procedure.
2. Learn about draping of basic bodice & sleeves
3. Understand the draping of Bodice blocks & its variations.
4. Learn about introduction of varies fullness.
5. Understand the draping of Skirts.
6. Understand the draping of Slacks.
7. Learn the draping of Yokes & collars.
8. Understand the draping of sleeves.
9. Understand the draping of advanced design variations.
10. Learn the draping of knit garments.

Course outcome

On successful completion of this course, the student will be able to

CO1: Apply the concept of draping principles.

CO2: Explain the draping of bodice block and its variations.

CO3: Create skirt and slack design using draping techniques.

CO4: Apply the knowledge of draping in collar & sleeve design making.

CO5: Apply the knowledge of draping in knit garment design.

1066236241	FASHION DRAPING	L	T	P	C
PRACTICUM		1	0	4	3

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2	2	2	3
CO2	3	2	2	2	1	2	3
CO3	3	2	2	2	1	2	3
CO4	3	2	2	2	1	2	3
CO5	3	2	2	2	2	2	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset. Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

1066236241	FASHION DRAPING	L	T	P	C
PRACTICUM		1	0	4	3

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Written Test Theory	Practical Test	Practical Examination
Portion	Cycle I Exercises 50% Exercises	Cycle II Exercises 50% Exercises	All Units	All Exercises	All Exercises
Duration	2 Periods	2 Periods	3 Hours	3 Hours	3 hours
Exam Marks	60	60	100	100	100
Converted to Marks	10	10	15	15	60
Marks	10		15	15	60
Internal Marks	40				
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

Note:

- **CA1 and CA2:** All the exercises/experiments should be completed as per the portions above and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded shall be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

1066236241	FASHION DRAPING	L	T	P	C
PRACTICUM		1	0	4	3

Practical documents should be maintained for every exercise / experiment immediately after completion of the practice. The practical document should be submitted for the practical test. The same should be evaluated for 10 Marks for each exercise/experiment. The total marks awarded should be converted to 10 Marks for the practical test as per the scheme of evaluation as below.

The details of the documents to be prepared as per the instruction below:

Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50
D	Practical Documents (As per the portions)	10
		60

- **CA 3:** Written Test for complete theory portions should be conducted for 100 Marks as per the question pattern below. The marks scored will be converted to 15 Marks for internal assessment.

1066236241	FASHION DRAPING	L	T	P	C
PRACTICUM		1	0	4	3

Question pattern – Written Test Theory

Description		Marks	
Part – A	30 MCQ Questions	30 X 1 Mark	30 Marks
Part – B	7 Questions to be answered out of 10 Questions.	7 X 10 Marks	70 Marks
		TOTAL	100 Marks

- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation below. After completion of all the exercises the practical test should be conducted as per End Semester Examination question pattern scheme of evaluation. The marks awarded should be converted to 15 Marks for the internal assessment.

SCHEME OF EVALUATION

Model Practical Examination - Practical Exam

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

***Note:** For the written test 20 MCQ shall be asked from the theory portions

1066236241	FASHION DRAPING	L	T	P	C
PRACTICUM		1	0	4	3

Unit I	INTRODUCTION TO DRAPING	
Definition of Draping – Draping Tools & Equipments – Draping principles – Preparation of muslin for Draping – Seam allowance – Preparation of Dress form for Draping - Draping of Basic Bodice front – Preparation of muslin – Draping steps – Marking – Truing - Draping of Basic Bodice Back – Draping of Basic Sleeve – Draping of Basic Skirt. **Experiments** 1. Prepare basic bodies' pattern for Front & Back by Draping Technique. 2. By draping technique Prepare patterns for Basic Skirt.		15
Unit II	**DRAPING OF BODICE BLOCKS & VARIATIONS**	
Front Bodice with under arm Dart – Back Bodice with Neckline Dart – Dart manipulation – Waist line Dart – Dart at waistline and centre front – French Dart – Double French Dart – Flange Dart – Neckline Dart -– Neckline variations – Front & Back Armhole variations – Typical sleeveless – Squared – Cutaway Waist line variation – lowered – Empire – Shortened – Scalloped – Pointed. The Princes Bodice – Cowls – front – Under arm cowl – Wrapped neckline cowl. Twists – Butterfly Twist –– Neck yoke twist – Bust twist. **Experiments:** 3. Using draping technique Prepare pattern for Lowered Waistline. 4. Using draping technique Prepare pattern for Pointed Waistline. 5. Using draping technique Prepare pattern for Empire Waistline. 6. Using draping technique Prepare pattern for Princess Bodies.		15
Unit III	**DRAPING OF SKIRTS & SLACKS**	
Draping of one piece basic skirt – Gored skirt – Flared skirt – Pleats in the flared skirt – Gathers in the flared skirt – Pleated skirt – Side & Box pleated skirt – Kick pleated and inverted pleated skirt. Draping of basic straight slacks – Fitted slacks – Tapered slacks – Pegged slacks – Divided skirt. **Experiments:** 7. Using draping technique Prepare pattern for Skirt with Hip Yoke. 8. Using draping technique Prepare pattern for Tapered Slacks.		15

9. Using draping technique Prepare pattern for Pleated Skirt.		
Unit IV	**DRAPING OF YOKES, SLEEVES & COLLARS**	
Draping of fitted midriff Yoke –– Shirt yoke – Hip Yoke. Draping of – Mandarin Collar – Convertible collar – Peter-pan collar. Draping of Basic Dolman sleeve – Long fitted Dolman sleeve –– Raglan sleeve – Kimono sleeve with a gusset. **Experiments:** 10. By draping technique Prepare patterns for Basic Sleeve. 11. Using draping technique Prepare pattern for Reglan Sleeve.		15
Unit V	**DRAPING OF ADVANCED DESIGN VARIATIONS & KNIT GARMENTS**	
Draping of bias – Cut slip Dress – Bustier Designs – basic Knit Bodice Dress – Knit Halter - Knit Leotard - Knit Panties. Draping of Flounces – Circular flounce – Shirred Flounce – Draping of Ruffles – Variable Ruffle finishes – Draping of peplums. Draping of 'A' line shift – Draping of Princess Dress – Draping of Basic Jacket. **Experiments:** 12. Using draping technique Prepare pattern for Basic Jacket.		15
TOTAL HOURS		**75**

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative Management theories.

1066236241	FASHION DRAPING	L	T	P	C
PRACTICUM		1	0	4	3

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

List of Equipment (*Optional)

Equipment / Machines / Instruments required:

Dress forms Mannequin	Drafting tools
Pattern / Cutting table	Construction tools
Measuring tools	General tool

Sewing machines

Lock stitch - 10 Nos	Button stitch 1 No
Over lock- 1 No	4- Needle trimmer 1 No
Flat lock 1 No	Chain stitch* 1 No
Button hole I No	Feed- off-arm* 1 No

Material required:

10 meters of fabric/ expt./ batch of 30 students.

Sewing threads- white, assorted & Decorative materials

1066236241	FASHION DRAPING	L	T	P	C
PRACTICUM		1	0	4	3

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations

Board Practical Examination Evaluation - Single Experiment is to be given per student

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

***Note:** For the written test 20 MCQ shall be asked from the theory portions

Reference

1. The Art of Fashion Draping Connie Amaden Crawford Fair Child Publication, New York Om Books International, New Delhi 2005
2. Draping for Fashion Design Hilde Jaffe & Nurie Relis Prentice Hall career & Technology, Engle wood Cliffs, USA 2007
3. Draping for Fashion Design Hilde Jaffe & Nurie Relis Dorling Kindersley India Pvt Ltd., New Delhi110092 2009

1066236242	KNIT WEAR TECHNOLOGY	L	T	P	C
PRACTICUM		1	0	4	3

Introduction

The treatments of fabric to produce various garments produced have a great deal in common. This common theme is connected with the knitted fabric property of extensibility. This is in contrast to the general rigidity of most woven fabrics. The industries dealing with production of knitted garments remain separate from those dealing with woven garments. Hence hands on experience will help the students to acquire the skill, knowledge in pattern preparation and construction of garments.

Course objectives

At the end of the study of VI Semester the student will be able to

1. To prepare Men's T-Shirt pattern
2. To prepare T-Shirt sleeve pattern
3. To prepare pattern for Men's Track suit
4. To prepare pattern for women's Tops
5. To prepare pattern for men's & women's singlet
6. To prepare pattern for men's vest

Course outcome

On successful completion of this course, the student will be able to

CO1: Apply the knowledge of pattern making on development of T Shirt.

CO2: Make Men's T Shirt.

CO3: Create Women's tops and singlet.

CO4: Apply the knowledge on making of Men's singlet pattern.

CO5: Apply the knowledge of stitching in knit garment making.

1066236242	KNIT WEAR TECHNOLOGY	L	T	P	C
PRACTICUM		1	0	4	3

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	2	2	2	2	3
CO2	3	2	2	2	1	2	3
CO3	3	2	2	2	1	2	3
CO4	3	2	2	2	1	2	3
CO5	3	2	2	2	2	2	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlation

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset. Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

1066236242	KNIT WEAR TECHNOLOGY	L	T	P	C
PRACTICUM		1	0	4	3

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Written Test Theory	Practical Test	Practical Examination
Portion	Cycle I Exercises 50% Exercises	Cycle II Exercises 50% Exercises	All Units	All Exercises	All Exercises
Duration	2 Periods	2 Periods	3 Hours	3 Hours	3 hours
Exam Marks	60	60	100	100	100
Converted to Marks	10	10	15	15	60
Marks	10		15	15	60
Internal Marks	40				
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

Note:

- **CA1 and CA2:** All the exercises/experiments should be completed as per the portions above and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded shall be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

1066236242	KNIT WEAR TECHNOLOGY	L	T	P	C
PRACTICUM		1	0	4	3

Practical documents should be maintained for every exercise / experiment immediately after completion of the practice. The practical document should be submitted for the practical test. The same should be evaluated for 10 Marks for each exercise/experiment. The total marks awarded should be converted to 10 Marks for the practical test as per the scheme of evaluation as below.

The details of the documents to be prepared as per the instruction below:

Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50
D	Practical Documents (As per the portions)	10
		60

- **CA 3:** Written Test for complete theory portions should be conducted for 100 Marks as per the question pattern below. The marks scored will be converted to 15 Marks for internal assessment.

1066236242	KNIT WEAR TECHNOLOGY	L	T	P	C
PRACTICUM		1	0	4	3

Question pattern – Written Test Theory

Question pattern – Written Test Theory

Description		Marks	
Part – A	30 MCQ Questions	30 X 1 Mark	30 Marks
Part – B	7 Questions to be answered out of 10 Questions.	7 X 10 Marks	70 Marks
		TOTAL	100 Marks

- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation below. After completion of all the exercises the practical test should be conducted as per End Semester Examination question pattern scheme of evaluation. The marks awarded should be converted to 15 Marks for the internal assessment.

SCHEME OF EVALUATION

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

***Note:** For the written test 20 MCQ shall be asked from the theory portions

1066236242	KNIT WEAR TECHNOLOGY	L	T	P	C
PRACTICUM		1	0	4	3

Unit I	MEN'S T-SHIRT	
Prepare pattern for Men's T-shirt, using the given measurement with half sleeve, full sleeve and Raglan sleeve. **Experiments:** 1. Using the given measurement, prepare a pattern for Knitted Men's T-shirt with half sleeve. 2. Using the given measurement, prepare a pattern for Knitted Men's T-shirt with Full sleeve. 3. Using the given measurement, prepare a pattern for Knitted Men's T-shirt with Raglan sleeve. 4. Using the given paper pattern, construct , finish and press Men's T-shirt with half sleeve 5. Using the given paper pattern, construct, finish and press Men's T-shirt with Full sleeve. 6. Using the given paper pattern, construct, finish and press Men's T-shirt with Raglan sleeve.		15
Unit II	**MEN'S TRACK SUIT**	
Prepare pattern for Men's Track suit, using the given measurement and construct Men's Track suit, using the given paper pattern. **Experiments:** 7. Using the given measurement, prepare a pattern for Knitted Men's Track suit. 8. Using the given paper pattern, construct, finish and press Men's Track suit.		15
Unit III	**WOMEN'S TOPS**	
Prepare pattern for Women's Tops, using the given measurement for different types of neck and sleeve arrangement - Construct women's Tops, using the given paper pattern **Experiments:** 9. Using the given measurement prepare a pattern for Knitted Women's Tops with different types of neck and sleeve arrangement.		15

10. Using the given paper pattern, construct, finish and press Women's Tops with different types of neck and sleeve arrangement.		
Unit IV	**MEN'S AND WOMEN'S SINGLETS**	
Prepare pattern for Men's and Women's Singlet, using the given measurement - Construct Men's and Women's Singlet, using the given paper pattern. **Experiments:** 11. Using the given measurement, prepare a pattern for Knitted Men's and Women's Singlet. 12. Using the given paper pattern, construct, finish and press Men's and Women's Singlet.		15
Unit V	**MEN'S VEST**	
Prepare pattern for Men's Vest using the given measurement - Construct Men's Vest, using the given paper pattern. **Experiments:** 13. Using the given measurement, prepare a pattern for Knitted Men's vest with and without sleeve. 14. Using the given paper pattern, construct, finish and press Men's vest with and without sleeve.		**15**
TOTAL HOURS		**75**

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative Management theories.

1066236242	KNIT WEAR TECHNOLOGY	L	T	P	C
PRACTICUM		1	0	4	3

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

List of Equipment

Equipment required:

- Measuring tools
- Pattern making tools
- Construction tools
- General tools
- Sewing machines: - Lock stitch- 15 m/cs. Optional - (Over lock- 1 m/c. Flat lock- 1 m/c Buttonhole- 1 m/c Button stitch- 1 m/c)

Materials required:

- 3- 5 meters of fabric/ experiment / batch of 30 students.

Sewing threads: - white and assorted – 30 nos.

1066236242	KNIT WEAR TECHNOLOGY	L	T	P	C
PRACTICUM		1	0	4	3

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations
- **Board Practical Examination Evaluation - Single Experiment is to be given per student**

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

- ***Note:** For the written test 20 MCQ shall be asked from the theory portions

Reference

1. The Art of Sewing Anna Jacob Thomas. Ubs Publishers, Delhi. 2001
2. Practical Clothing Constructions Part I & II Mary Mathews Paprinpack Printers,Chennai.
3. Zarapkar System of Cutting. K.R.Zarapkar Navneet Publications (I) Ltd.,Dantali. Gujarat. 2015
4. Sew It Yourself. Lippman (Gidon) Prentice Hall Inc New Jersey

1066236242	KNIT WEAR TECHNOLOGY	L	T	P	C
PRACTICUM		1	0	4	3

Web-link & Online sources

1. A Complete Knitted Garment Manufacturing Process by Marc Berman https://programminginsider.com/a-complete-knitted-garment-manufacturing-process
2. knitting Textile, Written and fact-checked by The editors of Encyclopedia Britannica, https://www.britannica.com/technology/knitting
3. https://kanataknits.com/5-benefits-of-knitwear-for-travel
4. https://textilevaluechain.in/news-insights/fashion-in-knitting/
5. History of Knitting – A Resource Demystifying the Origins of Knitting, https://www.makersmercantile.com/history-of-knitting-a-resource-guide.htm

1066236243	PATTERN GRADING AND ALTERATION	L	T	P	C
PRACTICUM		1	0	4	3

Introduction:

Manual pattern grading is an essential skill in the field of fashion design and garment production. This course will teach students how to transform a basic pattern into various sizes. Students will learn the techniques, tools, and principles required to create graded patterns, ensuring a perfect fit for your target audience. This course will enhance the students' skills and broaden understanding of pattern grading.

Course Objectives

The objective of this course is to enable the student to

1. To enable the students to develop the ability to create design through flat pattern technique.
2. To impart skills in dart manipulation.
3. To enable the students to learn the skills of standardizing body measurements

Course Outcomes

On successful completion of this course, the student will be able to

CO1: Infer about pattern making terminology and steps in taking body measurement.

CO2: Summarize the pattern drafting techniques and fitting standards for different garments.

CO3: Generalize the Pattern Draping techniques and its facts.

CO4: Predict different pattern grades and fabric grains for cutting.

CO5: Explain pattern alteration techniques and predict the various kinds of pattern layout.

CO/PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	3	2	1	1		2	3
CO2	3	2	1	1	2		3
CO3	3	2		1		2	3
CO4	3	2	1	1	2		3
CO5	3	2	1	1		2	3

Legend: 3-High Correlation, 2-Medium Correlation, 1-Low Correlatio

1066236243	PATTERN GRADING AND ALTERATION	L	T	P	C
PRACTICUM		1	0	4	3

Instructional Strategy

- It is advised that teachers take steps to pique pupils' attention and boost their learning confidence.
- To help students learn and appreciate numerous concepts and principles in each area, teachers should provide examples.
- The demonstration can make the subject exciting and foster in the students a scientific mindset.
- Student activities should be planned on all the topics.
- Throughout the course, a theory-demonstrate-practice-activity strategy may be used to ensure that learning is outcome and employability based.

Assessment Methodology:

	Continuous Assessment (40 marks)				End Semester Examination (60 marks)
	CA1	CA2	CA3	CA4	
Mode	Practical Test	Practical Test	Written Test Theory	Practical Test	Practical Examination
Portion	Cycle I Exercises 50% Exercises	Cycle II Exercises 50% Exercises	All Units	All Exercises	All Exercises
Duration	2 Periods	2 Periods	3 Hours	3 Hours	3 hours
Exam Marks	60	60	100	100	100
Converted to Marks	10	10	15	15	60
Marks	10		15	15	60
Internal Marks	40				
Tentative Schedule	7th Week	14th Week	15th Week	16th Week	

1066236243	PATTERN GRADING AND ALTERATION	L	T	P	C
PRACTICUM		1	0	4	3

Note:

- **CA1 and CA2:** All the exercises/experiments should be completed as per the portions above and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation as below. The marks awarded shall be converted to 10 Marks for each assessment test. Best of one will be considered for the internal assessment of 10 Marks.

  Practical documents should be maintained for every exercise / experiment immediately after completion of the practice. The practical document should be submitted for the practical test. The same should be evaluated for 10 Marks for each exercise/experiment. The total marks awarded should be converted to 10 Marks for the practical test as per the scheme of evaluation as below.

  The details of the documents to be prepared as per the instruction below:

  Each exercise should be completed on the day of practice. The same shall be evaluated for 10 marks on the day or next day of practice before commencement of the next exercise.

  This documentation can be carried out in a separate notebook or printed manual or in a file with the documents. The procedure and sketch should be written by the student manually.

  The detailed date of the practices and its evaluations should be maintained in the course logbook. The logbook and the practical documents should be submitted for the verification by the Flying Squad and DOTE Official.

1066236243	PATTERN GRADING AND ALTERATION	L	T	P	C
PRACTICUM		1	0	4	3

SCHEME OF EVALUATION

PART	DESCRIPTION	MARKS
A	Procedure (Write-up)	15
B	Experiment	30
C	Viva voce	5
TOTAL		50
D	Practical Documents (As per the portions)	10
		60

- **CA 3:** Written Test for complete theory portions should be conducted for 100 Marks as per the question pattern below. The marks scored will be converted to 15 Marks for internal assessment.

Question pattern – Written Test Theory

Question pattern – Written Test Theory

Description		Marks	
Part – A	30 MCQ Questions	30 X 1 Mark	30 Marks
Part – B	7 Questions to be answered out of 10 Questions.	7 X 10 Marks	70 Marks
		TOTAL	100 Marks

- **CA 4:** All the exercises/experiments should be completed and kept for the practical test. The students shall be permitted to select any one by lot for the test. The practical test should be conducted as per the scheme of evaluation below. After completion of all the exercises the practical test should be conducted as per End Semester Examination question pattern scheme of evaluation. The marks awarded should be converted to 15 Marks for the internal assessment.

1066236243	PATTERN GRADING AND ALTERATION	L	T	P	C
PRACTICUM		1	0	4	3

SCHEME OF EVALUATION

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

***Note:** For the written test 20 MCQ shall be asked from the theory portions

1066236243	PATTERN GRADING AND ALTERATION	L	T	P	C
PRACTICUM		1	0	4	3

Unit I	**GRADING SLEEVE PATTERN**	
Experiments: 1. Grade the plain sleeve pattern. 2. Grade the puff sleeve pattern. 3. Grade the bell sleeve pattern.		15
Unit II	**GRADING COLLAR PATTERN**	
Experiments: 4. Grade the shirt collar pattern. 5. Grade the peter-pan collar pattern. 6. Grade the mandarin collar pattern.		15
Unit III	**GRADING YOKE PATTERN**	
Experiments: 7. Grade the plain yoke pattern. 8. Grade the partial yoke pattern. 9. Grade the midriff yoke pattern.		15
Unit IV	**GRADING FRONT AND BACK PATTERN**	
Experiments: 10. Grade the front block pattern. 11. Grade the back block pattern.		15
Unit V	**FITTING AND ALTERATION**	
Fitting- Definition, principles of a good fit. Causes for a poor fit. Checking the fit of a garment, fitting techniques. Pattern alteration- importance of pattern alternation. Principles of pattern alternation. **Experiments:** 12. Study the principles of pattern alteration.		15
TOTAL HOURS		**75**

1066236243	PATTERN GRADING AND ALTERATION	L	T	P	C
PRACTICUM		1	0	4	3

Suggested to student activity

- Presentation / Seminars by students on any successful Management
- Periodic class quizzes conducted on a weekly/ fortnightly basis to reinforce the basic of Management concepts
- Instructed to the students will be interacted with aluminous of the Department to know the current scenario of the textile market
- The students should visit to the nearest industry, to acquire the practical knowledge in their interested area topics.
- Teacher / Lecturer should be motivated to their students to make small scale entrepreneur.
- Students have to develop the good relationship with Core Company
- The students have to read the latest research journal and upgrade their knowledge and to create the innovative ideas.

Guidelines to Design Practical Exercise / Experiment *

- The experiment / exercise should be prepared in such a way that it should be completed within the prescribed duration.
- Total number of experiments / exercises should be based on the total periods allotted for the course. If 45 Periods is allotted 10 experiments / exercises, If 60 Periods is allotted 12 experiments / exercises, are recommended. (The Faculty Anchor has to finalize in consultation with the experts.)
- Uniform weight age should be given for each experiment / exercise, if it has the subdivision.
- Check the availability of equipment required / Possibility to complete the exercise / experiment by the student with safety

List of Equipment

Equipment required:

Pattern table- 8'x4' table- 4 no's

Materials required:

Pattern paper-30 nos /experiment /batch of 30 students

Measuring, drafting & general tools-30/ batch of 30 students

1066236243	PATTERN GRADING AND ALTERATION	L	T	P	C
PRACTICUM		1	0	4	3

END SEMESTER EXAMINATION – PRACTICAL EXAM.

Note:

- All the exercises have to be completed; any one exercise will be given for board examination with appropriate action verb in the exercises for a single student.
- All the exercises should be covered and equally distributed in the board exam question paper. The student is allowed to selectby lot or question papers issued by the DOTE Exam section shall be used.
- Record of work done in the course of study should be submitted for the End Semester Examinations
- **Board Practical Examination Evaluation - Single Experiment is to be given per student**

Description	Marks allocated
Procedure	30
Experiment	40
Written Test (Theory portions only)*	20
Viva-Voce	10
Total	**100**

- ***Note:** For the written test 20 MCQ shall be asked from the theory portions**Reference**

1. The Art of Sewing Anna Jacob Thomas. Ubs Publishers, Delhi. 2001
2. Zarapkar System Of Cutting. K.R.Zarapkar Navneet Publications (I) Ltd.,Dantali. Gujarat. 2015
3. Sew It Yourself. Lippman (Gidon) Prentice Hall Inc New Jersey
4. Comparative Clothing Construction Techniques Virginn Stolpe Lewis Surjeet Publications, Delhi 1985
5. Scientific Garments Cutting K.M. Hedge K.M. Hedge & Sons., Poona
6. Pattern Cutting For Women's Outer Wear Gerry Cooklin Blackwell Science Publication, London 2007

1066236243	PATTERN GRADING AND ALTERATION	L	T	P	C
PRACTICUM		1	0	4	3

7. Metric Pattern Cutting Winfred Aldrich Blackwell Science Publication, London 2003
8. Pattern grading for Mens' Clothes Gerry Cooklin Blackwell Science Publication, London 2009
9. Pattern grading for Children's Clothes Gerry Cooklin Blackwell Science Publication, London
10. Pattern Grading for womens' Clothiing Gerry Cooklin Blackwell Science Publication, London 2014
11. Step by Step Dress Making course Leela Aitken BBC Books, London

1066236651	INTERNSHIP	540	C
PROJECT		PERIODS	12

Introduction

Internships in educational institutions are designed to provide students with practical experience in their field of study and to bridge the gap between academic knowledge and professional practice.

Objectives

After completing Internship, Interns will be able to,

- Apply the theoretical knowledge and skill during performance of the tasks assigned in internship.
- Demonstrate soft skills such as time management, positive attitude and communication skills during performance of the tasks assigned in internship.
- Document the Use case on the assigned Task.
- Enable interns to apply theoretical knowledge gained in the classroom to real-world practical applications.
- Provide hands-on experience in the industrial practices.
- Develop essential skills such as communication, organization, teamwork, and problem-solving.
- Enhance specific skills related to the intern's area of focus.
- Offer a realistic understanding of the daily operations and responsibilities.
- Provide opportunities to work under the guidance of experienced supervisors and administrators.
- Allow interns to explore different career paths.
- Help interns make informed decisions about their future career goals based on first hand experience.
- Facilitate the establishment of professional relationships with supervisor, administrators, and other professionals in the field.
- Provide access to a network of contacts that can be beneficial for future job opportunities and professional growth.

1066236651	INTERNSHIP	540	C
PROJECT		PERIODS	12

- Foster personal growth by challenging interns to step out of their comfort zones and take on new responsibilities.
- Build confidence and self-efficacy through successful completion of internship tasks and projects.
- Give insight into the policies, regulations, and administrative practices.
- Allow interns to observe and understand the implementation of standards and policies in practice.
- Provide opportunities for constructive feedback from supervisors and mentors, aiding in the intern's professional development.
- Enable self-assessment and reflection on strengths, areas for improvement, and career aspirations.
- Encourage sensitivity to the needs and backgrounds of different groups, promoting inclusive and equitable industrial practices.

Course Outcomes

CO 1: Demonstrate improved skills.

CO 2: Exhibit increased professional behavior.

CO 3: Apply theoretical knowledge and principles in real-world practices.

CO 4: Develop and utilize assessment tools to evaluate the learning and practices.

CO 5: Engage in reflective practice to continually improve their learning and professional growth.

Facilitating the Interns by an Internship Provider

Orient intern in the new workplace. Give interns an overview of the organization, Explain the intern's duties and introduce him or her to co-workers.

Develop an internship job description with clear deliverables and timeline.

Allow the interns in meetings and provide information, resources, and opportunities for professional development.

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The interns have never done this kind of work before, they want to know that their work is measuring up to organizational expectations, hence provide professional guidance and mentoring to the intern.

Daily progress report of Intern is to be evaluated by industry supervisor. examine what the intern has produced and make suggestions. Weekly supervision meetings can help to monitor the intern's work.

Duties Responsibilities of the Faculty Mentor

To facilitate the placement of students for the internship

To liaison between the college and the internship provider

To assist the Industrial Training Supervisor during assessment

Instructions to the Interns

- Students shall report to the internship provider on the 1st day as per the internship schedule.
- Intern is expected to learn about the organization, its structure, product range, market performance, working philosophy etc.
- The interns shall work on live projects assigned by the internship provider.
- The Intern shall record all the activities in the daily log book and get the signature of the concerned training supervisor.
- Intern shall have 100% attendance during internship programme. In case of unavoidable circumstances students may avail leave with prior permission from the concerned training supervisor of the respective internship provider. However, the maximum leave permitted during internship shall be as per company norms where they are working and intern shall report the leave sanctioned details to their college faculty mentor.
- The interns shall abide all the Rules and Regulations of internship provider
- Intern shall follow all the safety Regulations of internship provider.
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- On completion of the internship, the intern shall report to the college and submit the internship certificate mentioning duration of internship, evaluation of interns by internship provider, Student's Diary and Comprehensive Training Report.

Attendance Certification

Every month students have to get their attendance certified by the industrial supervisor in the prescribed form supplied to them. Students have also to put their signature on the form and submit it to the institution supervisor. Regularity in attendance and submission of report will be duly considered while awarding the Internal Assessment mark.

Training Reports

The students have to prepare two types of reports: Weekly reports in the form of a diary to be submitted to the concerned staff in-charge of the institution. This will be reviewed while awarding Internal

Industrial Training Diary

Students are required to maintain the record of day-to-day work done. Such a record is called Industrial training Diary. Students have to write this report regularly. All days for the week should be accounted for clearly giving attendance particulars (Presence, absence, Leave, Holidays etc.). The concern of the Industrial supervisor is to periodically check these progress reports.

Comprehensive Training Report

In addition to the diary, students are required to submit a comprehensive report on training with details of the organisation where the training was undergone after attestation by the supervisors. The comprehensive report should incorporate study of plant/product/process/construction along with intensive in-depth study on any one of the topics such as processes, methods, tooling, construction and equipment,

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highlighting aspects of quality, productivity and system. The comprehensive report should be completed in the last week of Industrial training.

Any data, drawings etc. should be incorporated with the consent of the Organisation.

Scheme of Evaluation

Internal Assessment

Students should be assessed for 50 Marks by industry supervisor and polytechnic faculty mentor during 8th Week and 15th Week. The total marks (50 + 50) scored shall be converted to 40 marks for the Internal Assessment.

Sl. No.	Description	Marks
A	Punctuality and regularity. (Attendance)	10
B	Level / proficiency of practical skills acquired. Initiative in learning / working at site	10
C	Ability to solve practical problems. Sense of responsibility	10
D	Self expression / communication skills. Interpersonal skills / Human Relation.	10
E	Report and Presentation.	10
Total		50

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End Semester Examination - Project Exam

Students should be assessed for 100 Marks both by the internal examiner and external examiner appointed by the Chairman Board of Examinations after the completion of internship period (Dec - May). The marks scored will be converted to 60 marks for the End Semester Examination.

Sl. No.	Description	Marks
A	Daily Activity Report.	20
B	Comprehensive report on Internship, Relevant Internship Certificate from the concerned department.	30
C	Presentation by the student at the end of the Internship.	30
D	Viva Voce	20
Total		100

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Introduction

The Fellowship in the Diploma in Engineering program is designed to provide aspiring engineers with a comprehensive educational experience that combines theoretical knowledge with practical skills. This fellowship aims to cultivate a new generation of proficient and innovative engineers who are equipped to meet the challenges of a rapidly evolving technological landscape.

Participants in this fellowship will benefit from a robust curriculum that covers core engineering principles, advanced technical training, and hands-on projects. The program emphasizes interdisciplinary learning, encouraging fellows to explore various branches of engineering, from mechanical and civil to electrical, electronics & communication and computer engineering. This approach ensures that graduates possess a versatile skill set, ready to adapt to diverse career opportunities in the engineering sector.

In addition to academics, the fellowship offers numerous opportunities for professional development. Fellows will engage with industry experts through seminars, workshops, and internships, gaining valuable insights into real-world applications of their studies. Collaborative projects and research initiatives foster a culture of innovation, critical thinking, and problem-solving, essential attributes for any successful engineer.

By offering this fellowship, participants become part of a vibrant community of learners and professionals dedicated to advancing the field of engineering. The program is committed to supporting the growth and development of each fellow, providing them with the tools and resources needed to excel both academically and professionally.

The Fellowship in the Diploma in Engineering is more than just an educational endeavor; it is a transformative journey that equips aspiring engineers with the knowledge, skills, and experiences necessary to make significant contributions to society and the engineering profession.

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Objectives

After completing students will be able to,

- Provide fellows with a solid foundation in core engineering principles and advanced technical knowledge across various engineering disciplines.
- Equip fellows with hands-on experience through laboratory work, projects, and internships, ensuring they can apply theoretical knowledge to real-world scenarios.
- Promote interdisciplinary understanding by encouraging exploration and integration of different engineering fields, fostering versatility and adaptability in fellows.
- Encourage innovation and creativity through research projects and collaborative initiatives, enabling fellows to develop new solutions to engineering challenges.
- Facilitate professional growth through workshops, seminars, and interactions with industry experts, preparing fellows for successful careers in engineering.
- Develop critical thinking and problem-solving skills, essential for tackling complex engineering problems and making informed decisions.
- Strengthen connections between academia and industry by providing opportunities for internships, industry visits, and guest lectures from professionals.
- Foster leadership qualities and teamwork skills through group projects and collaborative activities, preparing fellows for leadership roles in their future careers.
- Instill a sense of ethical responsibility and awareness of the social impact of engineering practices, encouraging fellows to contribute positively to society.
- Promote a culture of lifelong learning, encouraging fellows to continually update their knowledge and skills in response to technological advancements and industry trends.
- Prepare fellows to work in a global engineering environment by exposing them to international best practices, standards, and cross-cultural experiences.

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Course Outcomes

CO 1: Demonstrate a strong understanding of core engineering principles and possess the technical skills necessary to design, analyze, and implement engineering solutions across various disciplines.

CO 2: Apply theoretical knowledge to practical scenarios, effectively solving engineering problems through hands-on projects, laboratory work, and internships.

CO 3: Exhibit the ability to conduct research, develop innovative solutions, and contribute to advancements in engineering through critical thinking and creative approaches to complex challenges.

CO 4: Understand and adhere to professional and ethical standards in engineering practice, demonstrating responsibility, integrity, and a commitment to sustainable and socially responsible engineering.

CO 5: Enhance strong communication skills, both written and verbal, and be capable of working effectively in teams, demonstrating leadership and collaborative abilities in diverse and multidisciplinary environments.

Important points to consider to select the fellowship project.

Selecting the right fellowship project is crucial for maximizing the educational and professional benefits of a Diploma in Engineering program.

- **Relevance to Future Plans**: Choose a project that aligns with your long-term career aspirations and interests. This alignment will ensure that the skills and knowledge you gain will be directly applicable to your desired career path.
- **Industry Relevance**: Consider the current and future relevance of the project within the industry. Opt for projects that address contemporary challenges or emerging trends in engineering.
- **Access to Facilities**: Ensure that the necessary facilities, equipment, and materials are available to successfully complete the project. Lack of resources can hinder the progress and quality of your work.

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PROJECT		PERIODS	12

- **Mentorship and Guidance**: Select a project that offers strong mentorship and support from experienced faculty members or industry professionals. Effective guidance is crucial for navigating complex problems and achieving project objectives.
- **Project Scope**: Assess the scope of the project to ensure it is neither too broad nor too narrow. A well-defined project scope helps in setting clear objectives and achievable milestones.
- **Feasibility**: Evaluate the feasibility of completing the project within the given timeframe and with the available resources. Consider potential challenges and ensure you have a realistic plan to address them.
- **Technical Skills**: Choose a project that allows you to develop and enhance important technical skills relevant to your field of study. Practical experience in using specific tools, technologies, or methodologies can be highly beneficial.
- **Soft Skills**: Consider projects that also offer opportunities to develop soft skills such as teamwork, communication, problem-solving, and project management.
- **Innovative Thinking**: Select a project that encourages creativity and innovative problem-solving. Projects that push the boundaries of traditional engineering approaches can be particularly rewarding.
- **Societal Impact**: Consider the potential impact of your project on society or the engineering community. Projects that address significant challenges or contribute to social good can be highly fulfilling and make a meaningful difference.

Guidelines to select Fellowship

- Ensure the program is accredited by a recognized accrediting body and has a strong reputation for quality education in engineering.
- Ensure it covers core engineering principles that align with your interests and career goals.
- Investigate the qualifications and experience of the faculty mentor. Look for programs with faculty who have strong academic backgrounds, industry experience, and active involvement in research.

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PROJECT		PERIODS	12

- Check if the program provides adequate hands-on training opportunities, such as laboratory work, workshops, and access to modern engineering facilities and equipment.
- Assess the program's connections with industry. Strong partnerships with companies can lead to valuable internship opportunities, industry projects, and exposure to real-world engineering challenges.
- Explore the availability of research opportunities. Participation in research projects can enhance your learning experience and open doors to innovative career paths.
- Look for programs that offer professional development resources, such as workshops, seminars, and networking events with industry professionals and alumni.
- Ensure the program provides robust support services, including academic advising, career counseling, mentorship programs, and assistance with job placement after graduation.
- Consider the cost of the program and available financial aid options, such as scholarships, grants, and fellowships. Evaluate the return on investment in terms of career prospects and potential earnings.
- Research the success of the program's alumni. High employment rates and successful careers of past graduates can indicate the program's effectiveness in preparing students for the engineering field.

Duties Responsibilities of the Faculty Mentor

Each student should have a faculty mentor for the Institute.

- Get the approval from the Chairman Board of Examinations with the recommendations of the HOD/Principal for the topics.
- Provide comprehensive academic advising to help fellows select appropriate specializations, and research projects that align with their interests and career goals.
- Guide fellows through their research projects, offering expertise and feedback to ensure rigorous methodology, innovative approaches, and meaningful contributions to the field.
- Assist fellows in developing technical and professional skills through hands-on projects, laboratory work, and practical applications of theoretical knowledge.

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PROJECT		PERIODS	12

- Offer career advice and support, helping fellows explore potential career paths, prepare for job searches, and connect with industry professionals and opportunities.
- Provide personal mentorship, fostering a supportive relationship that encourages growth, resilience, and a positive academic experience.
- Facilitate connections between fellows and industry professionals, alumni, and other relevant networks to enhance their professional opportunities and industry exposure.
- Ensure fellows have access to necessary resources, including research materials, lab equipment, software, and academic literature.
- Regularly monitor and evaluate the progress of fellows, providing constructive feedback and guidance to help them stay on track and achieve their goals.
- Instill and uphold high ethical and professional standards, encouraging fellows to practice integrity and responsibility in their work.
- Assist with administrative tasks related to the fellowship program, such as preparing progress reports, writing recommendation letters, and facilitating grant applications.
- Organize and participate in workshops, seminars, and other educational events that enhance the learning experience and professional development of fellows.
- Address any issues or conflicts that arise, providing mediation and support to ensure a positive and productive academic environment.

Instructions to the Fellowship Scholar

- Regularly meet with your faculty mentor for guidance on academic progress, research projects, and career planning. Be proactive in seeking advice and support from your mentor.
- Develop strong organizational skills. Use planners, calendars, and task management tools to keep track of assignments, project deadlines, and study schedules. Prioritize tasks to manage your time efficiently.
- Take advantage of opportunities to participate in research projects and hands-on activities. These experiences are crucial for applying your theoretical knowledge and gaining practical skills.

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PROJECT		PERIODS	12

- Focus on improving essential professional skills such as communication, teamwork, problem-solving, and leadership. Participate in workshops and seminars that enhance these competencies.
- Actively seek networking opportunities through industry events, seminars, and meetings. Establish connections with peers, alumni, and professionals in your field to build a strong professional network.
- Seek internships, co-op programs, or part-time jobs related to your field of study. Real-world experience is invaluable for understanding industry practices and enhancing your employability.
- Uphold high ethical standards in all your academic and professional activities. Practice integrity, honesty, and responsibility. Adhere to the ethical guidelines and standards set by your institution and the engineering profession.
- Adopt a mindset of lifelong learning. Stay updated with the latest developments and trends in engineering by reading industry journals, attending conferences, and taking additional courses.

Documents to be submitted by the student to offer fellowship

- **Completed Application Form**: This is typically the standard form provided by the institution or fellowship program that includes personal information, educational background, and other relevant details.
- **Detailed CV/Resume**: A comprehensive document outlining your educational background, knowledge experience, interest in research experience, publications, presentations, awards, and other relevant achievements if any.
- **Personal Statement**: A document explaining your motivation for applying to the fellowship, your career goals, how the fellowship aligns with those goals, and what you intend to achieve through the program.
- **Recommendation Letters**: Letters from faculty mentor, employer, or professionals who can attest to your academic abilities, professional skills, and suitability for the fellowship.
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PROJECT		PERIODS	12

- **Proposal/Description**: A detailed proposal or description of the fellowship project or study you plan to undertake during the fellowship. This should include objectives, methodology, expected outcomes, and significance of the project.
- **Enrollment Verification**: Documentation verifying your current acceptance status in the academic institution or industry where the fellowship will be conducted.
- **Funding Information**: Details about any other sources of funding or financial aid you are receiving, if applicable. Some fellowships may also require a budget proposal for the intended use of the fellowship funds.
- **Samples of Work**: Copies of the relevant work that demonstrates your capabilities and accomplishments in your field.
- **Endorsement Letter**: A letter from your current academic institution endorsing your application for the fellowship, if required.
- **Ethical Approval Documents**: If your research involves human subjects or animals, you may need to submit proof of ethical approval from the relevant ethics committee.
- **Additional Documents**: Any other documents requested by the fellowship program required by the institution.

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PROJECT		PERIODS	12

Attendance Certification

Every month students have to get their attendance certified by the supervisor in the prescribed form supplied to them. Students have also to put their signature on the form and submit it to the faculty mentor. Regularity in attendance and submission of report will be duly considered while awarding the Internal Assessment mark.

Rubrics for Fellowship

Review I & II.

Sl. No.	Topics	Description
1	Alignment with Objectives	Assess how well the project aligns with the stated objectives and requirements. Determine if the student has addressed the key aspects outlined in the project guidelines.
2	Depth of Research:	Evaluate the depth and thoroughness of the literature review. Assess the student's ability to identify and address gaps in existing research.
3	Clarity of Objectives:	Check if the student has clearly defined and articulated the objectives of the project. Ensure that the objectives are specific, measurable, achievable, relevant, and time-bound (SMART).
4	Methodology and Data Collection:	Evaluate the appropriateness and justification of the research methodology. Assess the methods used for data collection and their relevance to the research questions.
5	Analysis and	Examine the quality of data analysis techniques used.

	Interpretation:	Assess the student's ability to interpret results and draw meaningful conclusions.
6	Project Management:	Evaluate the project management aspects, including adherence to timelines and milestones. Assess the student's ability to plan and execute the project effectively.
7	Documentation and Reporting:	Check the quality of documentation, including code, experimental details, and any other relevant materials. Evaluate the clarity, structure, and coherence of the final report.
8	Originality and Creativity:	Assess the level of originality and creativity demonstrated in the project. Determine if the student has brought a unique perspective or solution to the research problem.
9	Critical Thinking:	Evaluate the student's critical thinking skills in analyzing information and forming conclusions. Assess the ability to evaluate alternative solutions and make informed decisions.
10	Problem-Solving Skills:	Evaluate the student's ability to identify and solve problems encountered during the project. Assess adaptability and resilience in the face of challenges.

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INTERNAL MARKS - 40 Marks

As per the rubrics each topic should be considered for the Review I and Review II. Equal weightage should be given for all the topics. It should be assessed by a faculty mentor and the industrial professional or research guide.

Review 1 shall be conducted after 8th week and Review 2 shall be conducted after 14th week in the semester. Average marks scored in the reviews shall be considered for the internal assessment of 30 Marks.

Scheme of Evaluation

PART	DESCRIPTION	MARKS
A	Assessment as per the rubrics.	30
B	Attendance	10
Total		**40**

END SEMESTER EXAMINATION - Project Exam

Students should be assessed for 100 Marks both by the internal examiner and external examiner appointed by the Chairman Board of Examinations after the completion of fellowship. The marks scored will be converted to 60 marks for the End Semester Examination.

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PROJECT		PERIODS	12

Sl. No.	Description	Marks
A	Daily Activity Report.	20
B	Comprehensive report of the Fellowship Work.	30
C	Presentation by the student.	30
D	Viva Voce	20
Total		100

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PROJECT			12

Introduction

Every student must do one major project in the Final year of their program. Students can do their major project in Industry or R&D Lab or in-house or a combination of any two for the partial fulfillment for the award of Diploma in Engineering.

For the project works, the Department will constitute a three-member faculty committee to monitor the progress of the project and conduct reviews regularly.

If the projects are done in-house, the students must obtain the bonafide certificate for project work from the Project supervisor and Head of the Department, at the end of the semester. Students who have not obtained the bonafide certificate are not permitted to appear for the Project Viva Voce examination.

For the projects carried out in Industry, the students must submit a separate certificate from Industry apart from the regular bonafide certificate mentioned above. For Industry related projects there must be one internal faculty advisor / Supervisor from Industry (External), this is in addition to the regular faculty supervision.

The final examination for project work will be evaluated based on the final report submitted by the project group **of not exceeding four students**, and the viva voce by an external examiner.

Objectives

Academic project work plays a crucial role in the education of Diploma in Engineering students, as it helps them apply theoretical knowledge to practical situations and prepares them for real-world engineering challenges.

- **Integration of Knowledge**: Consolidate and integrate theoretical knowledge acquired in coursework to solve practical engineering problems.
- **Skill Development**: Enhance technical skills related to the specific field of engineering through hands-on experience and application.
- **Problem-Solving Abilities**: Develop critical thinking and problem-solving abilities by addressing complex engineering issues within a defined scope.
- **Project Management**: Gain experience in project planning, execution, and management, including setting objectives, timelines, and resource allocation.

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- **Teamwork and Collaboration**: Foster teamwork and collaboration by working in multidisciplinary teams to achieve project goals and objectives.
- **Research Skills**: Acquire research skills by conducting literature reviews, gathering relevant data, and applying research methodologies to investigate engineering problems.
- **Innovation and Creativity**: Encourage innovation and creativity in proposing and developing engineering solutions that may be novel or improve upon existing methods.
- **Communication Skills**: Improve communication skills, both oral and written, by presenting project findings, writing technical reports, and effectively conveying ideas to stakeholders.
- **Ethical Considerations**: Consider ethical implications related to engineering practices, including safety, environmental impact, and societal concerns.
- **Professional Development**: Prepare for future professional roles by demonstrating professionalism, initiative, and responsibility throughout the project lifecycle.

Course Outcomes

CO 1: Demonstrate the ability to apply theoretical concepts and principles learned in coursework to solve practical engineering problems encountered during the project.

CO 2: Develop and enhance technical skills specific to the field of engineering relevant to the project, such as design, analysis, simulation, construction, testing, and implementation.

CO 3: Apply critical thinking and problem-solving skills to identify, analyze, and propose solutions to engineering challenges encountered throughout the project lifecycle.

CO 4: Acquire project management skills by effectively planning, organizing, and executing project tasks within defined timelines and resource constraints.

CO 5: Improve communication skills through the preparation and delivery of project reports, presentations, and documentation that effectively convey technical information to stakeholders.

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PROJECT			12

Important points to consider to select the In-house project.

- Selecting a project work in Diploma Engineering is a significant decision that can greatly influence your learning experience and future career prospects.
- Choose a project that aligns with your career aspirations and interests within the field of engineering. Consider how the project can contribute to your professional development and future opportunities.
- Ensure the project aligns with your coursework and specialization within the Diploma program. It should complement and build upon the knowledge and skills you have acquired in your studies.
- Evaluate the scope of the project to ensure it is manageable within the given timeframe, resources, and constraints. Avoid projects that are overly ambitious or impractical to complete effectively.
- Assess the availability of resources needed to conduct the project, such as equipment, materials, laboratory facilities, and access to relevant software or tools. Lack of resources can hinder project progress.
- Select a project that genuinely interests and motivates you. A project that captures your curiosity and passion will keep you engaged and committed throughout the project duration.
- Consider the availability and expertise of faculty advisors or industry mentors who can provide guidance and support throughout the project. Effective mentorship is crucial for success.
- Clearly define the learning objectives and expected outcomes of the project. Ensure that the project will help you achieve specific learning goals related to technical skills, problem-solving, and professional development.
- Look for opportunities to propose innovative solutions or explore new methodologies within your project. Projects that encourage creativity can set you apart and enhance your learning experience.
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PROJECT			12

- Consider ethical implications related to the project, such as safety protocols, environmental impact, and compliance with ethical guidelines in research and engineering practices.
- Evaluate whether the project offers opportunities for collaboration with peers, experts from other disciplines, or industry partners. Interdisciplinary projects can broaden your perspective and enhance your teamwork skills.
- Consider the potential impact of your project on society or the engineering community. Projects that address significant challenges or contribute to social good can be highly fulfilling and make a meaningful difference.

By carefully considering these points, Diploma Engineering students can make informed decisions when selecting project work that not only enhances their academic learning but also prepares them for successful careers in engineering.

Duties Responsibilities of the internal faculty advisor

Each group should have an internal faculty advisor assigned by the HOD/Principal.

- The in-house project should be approved by the project monitoring committee constituted by the Chairman Board of Examinations.
- The in-house project should be selected in the fifth semester itself. Each in-house project shall have a maximum of four students in the project group.
- Provide comprehensive academic advising to help in the selection of appropriate in-house project that align with their interests and career goals.
- Offer expertise and feedback to ensure rigorous methodology, innovative approaches, and meaningful contributions to the field.
- Assist in developing technical and professional skills through hands-on projects, laboratory work, and practical applications of theoretical knowledge.
- Provide personal mentorship, fostering a supportive relationship that encourages growth, resilience, and a positive academic experience.
- Facilitate connections between students and industry professionals, alumni, and other relevant networks to enhance their professional opportunities and industry exposure.

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PROJECT			12

- Ensure students have access to necessary resources, including research materials, lab equipment, software, and academic literature.
- Regularly monitor and evaluate the progress of the in-house project, providing constructive feedback and guidance to help them stay on track and achieve their goals.
- Instill and uphold high ethical and professional standards, encouraging students to practice integrity and responsibility in their work.
- Assist in preparing progress reports, writing recommendation letters, and facilitating grant applications.
- Organize and participate in workshops, seminars, and other educational events that enhance the learning experience and professional development .
- Address any issues or conflicts that arise, providing mediation and support to ensure a positive and productive academic environment.

Instructions to the students.

- Regularly meet with your internal faculty advisor for guidance on academic progress, research projects, and career planning. Be proactive in seeking advice and support from your faculty advisor.
- Use planners, calendars, and task management tools to keep track of assignments, project deadlines, and study schedules. Prioritize tasks to manage your time efficiently.
- Take advantage of opportunities to participate in in-house projects and hands-on activities. These experiences are crucial for applying your theoretical knowledge and gaining practical skills.
- Focus on improving essential professional skills such as communication, teamwork, problem-solving, and leadership. Participate in workshops and seminars that enhance these competencies.
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PROJECT			12

- Actively seek networking opportunities through industry events, seminars, and meetings. Establish connections with peers, alumni, and professionals in your field to build a strong professional network.
- Seek internships, co-op programs, or part-time jobs related to your field of study. Real-world experience is invaluable for understanding industry practices and enhancing your employability.
- Uphold high ethical standards in all your academic and professional activities. Practice integrity, honesty, and responsibility. Adhere to the ethical guidelines and standards set by your institution and the engineering profession.
- Adopt a mindset of lifelong learning. Stay updated with the latest developments and trends in engineering by reading industry journals, attending conferences, and taking additional courses.

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PROJECT			12

Documents to be submitted by the student for an in-house project

Submit a printed report of your in-house project work along with the fabrication model / analysis report for the End Semester Examination.

Rubrics for In-House Project Work

Sl. No.	Topics	Description
1	Objectives	Clearly defined and specific objectives outlined. Objectives align with the project's scope and purpose.
2	Literature Review	Thorough review of relevant literature. Identification of gaps and justification for the project's contribution.
3	Research Design and Methodology	Clear explanation of the research design. Appropriateness and justification of chosen research methods.
4	Project Management	Adherence to project timeline and milestones. Effective organization and planning evident in the project execution.
5	Documentation	Comprehensive documentation of project details. Clarity and completeness in recording methods, results, and challenges.
6	Presentation Skills	Clear and articulate communication of project findings. Effective use of visuals, if applicable.
7	Analysis and Interpretation	In-depth analysis of data. Clear interpretation of results in the context of research

		questions.
8	Problem-Solving	Demonstrated ability to identify and address challenges encountered during the project. Innovative solutions considered where applicable.
9	Professionalism and Compliance	Adherence to ethical standards in research. Compliance with project guidelines and requirements.
10	Quality of Work	Overall quality and contribution of the project to the field. Demonstrated effort to produce high-quality work.

SCHEME OF EVALUATION

The mark allocation for Internal and End Semester Viva Voce are as below.

Internal Marks (40 Marks)*		
Review 1 (10 Marks)	Review 2 (15 Marks)	Review 3 (15 marks)
Committee: 5 Marks. Supervisor: 5 Marks	Committee: 7.5 Marks Supervisor: 7.5 Marks	Committee: 7.5 Marks Supervisor: 7.5 Marks

Note: * The rubrics should be followed for the evaluation of the internal marks during reviews.

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PROJECT			12

END SEMESTER EXAMINATION - Project Exam

The performance of each student in the project group would be evaluated in a viva voce examination conducted by a committee consisting of an external examiner and the project supervisor and an internal examiner.

End Semester (100)#			
Record (20 Marks)	Presentation (20 Marks)	Viva Voce (20 Marks)	Model / Analysis Report (40 Marks)
External: 10 Internal: 5 Supervisor: 5	External: 10 Internal: 5 Supervisor: 5	External: 10 Internal: 5 Supervisor: 5	External: 20 Internal: 10 Supervisor: 10

#The marks scored will be converted to 60 Marks.