

As Per NEP 2020 University of Mumbai



Title of the program

- | | | |
|---|---|------------------|
| A- P.G. Diploma in Home Science – Textile and Fashion Technology | } | 2023 – 24 |
| B- M.Sc. (Home Science – Textile and Fashion Technology) (Two Years) | | |
| C- M.Sc. (Home Science – Textile and Fashion Technology) (One Year) | | 2027 – 28 |

Syllabus for Semester I

Ref: GR dated 16th May, 2023 for Credit Structure of P.G.

Preamble

1) Introduction

The textile sector and fashion industry plays a very significant role in the Indian economy. The industry comprises traditional textiles that are a part of our rich and diverse cultural heritage as well as contemporary textile and apparel production. This industry contributes significantly to the country's exports and is one of the largest employment generators in India, providing direct and indirect employment. Against this background, the college and the University of Mumbai saw the need for a special cadre of textile and fashion related specialists, and in 1976, started the Master's Program in Home Science (in this sector, at that time, was called Textiles and Clothing). As this industry is continuously evolving and the Indian market has the opportunity to stake an even greater share in the international market, the current Master's programme **M.Sc. (Home Science) specializing in Textile and Fashion Technology** will empower students through skill building, knowledge generation and dissemination, so as to meet the country's and global needs and challenges.

The programme is an excellent blend of theory and practical and it has special relevance to Textile, Apparel and Fashion industries with advanced knowledge and experience in entrepreneurship skills, fieldwork, rural camp, internship, industrial visits, computer-aided designing, marketing and skills in textile and fashion technology related areas. It is designed to impart knowledge and skills that are life-oriented, career-oriented and community-oriented.

It includes mandatory courses, elective courses, practical and extensive research and on the job field training. A student-centric and participatory approach enhances the teaching learning process. The core areas include theoretical knowledge of Fibre Science, Colouration and Finishing, Marketing and Merchandising, Entrepreneurship, Management and Business Administration, Intellectual Property Rights, Garment Production Technology, Global Fashion Trend Forecasting, Technical Textiles.

The following are the key areas for training students in practical skills for example various areas of Fashion and Textile Designing, Pattern Making and Garment Construction, Product Development, Home Textile Designing, Draping, Womenswear, Menswear, Accessory Development, World Textile Embroideries and Textile Crafts, Costume Styling, Textile Testing and Quality Assurance. The practical course on

Alternative Health Strategies helps students to build and sustain their mental and physical wellness, thus contributing to the holistic value of the programme.

The programme offers a mandatory component on research methods and statistics to hone their research skills that can be further applied for their research project work.

Courses of special interest and aptitude are offered as electives namely Fashion Photography and Videography, Fashion Writing, Surface Embellishment Techniques, Fashion Illustration, CAD for Apparel & Home Products.

The programme is designed to train students with industry relevant skills through laboratory work, on-the job training and apprenticeship in textile testing laboratories, sustainable start-ups and entrepreneurial ventures with NGOs and artisans. The curriculum is supplemented with Extension Work and Educational Trips for Experiential Learning.

The scheme for evaluation and examination includes Internal Evaluation and Semester End Examination ensuring continuous effectiveness in teaching and learning. The Internal Evaluation promotes the development of soft skills and ensures participation by students throughout in the education process. Completion of one MOOC course in a year has been included in the internal evaluation.

In addition to the aforementioned, students are encouraged to undertake industry-and socially-relevant research projects. They are also motivated to participate in research competitions at various levels, publish research findings and engage in networking and collaboration.

2) Aims and Objectives:

- i. To impart the basic principles, knowledge and skills of textile science for its systematic application in the field of fibres, dyes, finishes, fabrics and apparel used in the textile, apparel and fashion industry.
- ii. To familiarize students with the various theoretical and practical aspects of the industry towards designing and developing textile and fashion products. This entails various aspects of creative designing, product development, testing, quality assurance, management, marketing, merchandising, emphasizing sustainability, innovation and use of ICT and CAD.
- iii. To encourage students to work in conjunction with relevant textile and apparel industries, gaining a deeper insight into the subjects of textile and fashion technology through experiential learning, within laboratories, crafts centres and on the field.

- iv. To provide students with opportunities to conduct collaborative research with testing laboratories, craft centres and NGOs, upholding ethical practices and intellectual property rights.
- v. To foster entrepreneurial aptitude by providing training and opportunities to develop suitable skillsets.

3) Learning Outcomes/Programme Outcomes:

After successful completion of the programme, the student will be able to:	
PO1	Demonstrate extensive knowledge of fibres, yarns, fabrics and apparel and apply the principles in technical aspects of textiles and the discipline of fashion.
PO2	Express and reason out ideas, concepts, and scientific knowledge effectively; orally and in writing with the use of appropriate media technology for example, creating thematic presentations, mood-boards, product lines and systematic creative processes and outputs.
PO3	Analyse and evaluate evidences, arguments, claims, and beliefs on the basis of scientific observations; identify logical limitations and draw conclusions from quantitative / qualitative data; evaluate historic textiles and costumes, global fashion trends, innovative design and prototype development.
PO4	Identify and analyse problems by applying core concepts of the discipline to solve problems in real time for inculcating values of sustainability.
PO5	Present and defend original research using the concepts of research methodology and statistics to thrust areas of textile and fashion technology.
PO6	Collaborate effectively with all the stakeholders to create, develop and exchange knowledge for the benefit of the society.
PO7	Apply advanced and specialized skills of the discipline, to creatively and critically evaluate and seek solutions to current issues working on process improvisation, innovative product development and product enhancement.
PO8	Use various CAD CAM technologies, digital platforms and social media effectively to design, produce and present ideas.
PO9	Practice proactive, self-directed learning and act independently in planning and executing projects which involve collaboration with testing laboratories, NGOs, craft centres and with industries.
PO10	Demonstrate an understanding of the Indian Knowledge System pertaining to tradition, culture and heritage and its relation to textiles and costumes, handlooms, handicrafts, artisans and their craftsmanship and foster appreciation through multicultural sensitivity.
PO11	Inculcate awareness and attitudes to make ethical judgements in producing original research through honesty and integrity and to promote ethical behaviour in every aspect from design thinking to the ultimate consumption as well as integrating circularity, and encourage originality and uniqueness.
PO12	Develop comprehensive skills of effective communication, business administration and management for understanding group dynamics and team building. This is enabled through active participation, strengthening of relationships, creating synergy in groups and attaining goals in an adaptive environment.
PO13	Develop universal human value system and maintain a holistic learning culture to renew self-motivation, recognize personal interests and improve personal and professional skills in all stages of life.

4) Any other point (if any)

-NA-

5) CREDIT STRUCTURE OF THE PROGRAMME (SEMESTER – I)
(Table as per Parishishta 1 with sign of HOD and Dean)

R _____

Post Graduate Programmes in University

- **P.G. Diploma in Home Science – Textile and Fashion Technology**
- **M.Sc. (Home Science - Textile and Fashion Technology) Year I (Two-Years)**

Parishishta – 1

Year (2 Yr P.G.)	Level	Sem. (2 Yr)	Major		RM	OJT / FP	RP	Cum . Cr.	Degree
			Mandatory *	Electives (Any one)					
I	6.0	Sem-I	C1 – Fibre Science (Th) (4 Cr)	E1 – A) Fashion Photography & Videography (Th) (2 Cr)	C5 Research Methods in Home Science (Th) (4 Cr)			22	P.G. Diploma (after 3 Year Degree)
			C2 – A) Textile Finishing (Th) (2 Cr)	E1 – B) Fashion Photography & Videography (Pr) (2 Cr)					
			C2 – B) Textile Colouration (Pr) (2 Cr)	OR					
			C3 – A) Pattern Making & Garment Construction for Womenswear (Woven) (Pr) (2 Cr)	E2 – A) Fashion Writing (Th) (2 Cr)					
			C3 – B) Home Textile - Designing & Product Development (Pr) (2 Cr)	E2 – B) Fashion Writing (Pr) (2 Cr)					
			C4 -Descriptive Statistics in Home Science (Th) (2 Cr)						
Sem – I For P.G. Diploma & M.Sc. Year I (Two- Years)			14	4	4	-	-	22	

Note:

1. Curriculum will be enriched with Extension Work and Educational Trips for experiential learning with supplemental credits.
2. Students are required to complete one/more MOOC through any platform such as NPTEL, SWAYAM, COURSERA, Future Learn, etc. with certification for supplemental credits.

CREDIT STRUCTURE OF THE PROGRAMME (SEMESTER – II)
(Table as per Parishishta 1 with sign of HOD and Dean)

R_____

Post Graduate Programmes in University

- **P.G. Diploma in Home Science – Textile and Fashion Technology**
- **M.Sc. (Home Science - Textile and Fashion Technology) Year I (Two-Years)**

Exit option: P.G. Diploma (44 Credits) after Three Year UG Degree

Year (2 Yr P.G.)	Level	Sem. (2 Yr)	Major		RM	OJT/ FP	RP	Cum. Cr.	Degree
			Mandatory*	Electives (Any one)					
I	6.0	Sem-II	C1 – A) Global Fashion (Th) (2 Cr)	E1 – A) Surface Embellishment (Th) (2 Cr)		C5 – On Job Training/ Field Project in Textile & Fashion Technology (Pr) (4 Cr)	22	P.G. Diploma (after 3 Year Degree)	
			C1 – B) Trend Forecasting (Th) (2 Cr)	E2 – B)					
			C2 – Global Textiles & Apparel – Marketing, Merchandising and Entrepreneurship (Th) (4 Cr)	Surface Embellishment (Pr) (2 Cr) OR					
			C3 – A) Pattern Making & Garment Construction for Menswear (Woven) (Pr) (2 Cr)	E2 – A) Fashion Illustration (Th) (2 Cr)					
			C3 – B) Accessory Development (Pr) (2 Cr)	E2 – B) Fashion Illustration (Pr) (2 Cr)					
			C4 - Advanced Statistics in Home Science (Th) (2 Cr)						
Sem – II For P.G. Diploma & M.Sc. Year I (Two-Years)			14	4		4	-	22	
Cum. Cr. (For P.G. Diploma)			28	8	4	4	-	44	

Note:

1. Curriculum will be enriched with Extension Work and Educational Trips for experiential learning with supplemental credits.
2. Students are required to complete one/more MOOC through any platform such as NPTEL, SWAYAM, COURSERA, Future Learn, etc. with certification for supplemental credits.
3. Students are required to do Summer Internship as a mandatory requirement of four weeks with supplemental credits.

CREDIT STRUCTURE OF THE PROGRAMME (SEMESTER – III)
(Table as per Parishishta 1 with sign of HOD and Dean)

R _____

Post Graduate Programmes in University

- **M.Sc. (Home Science - Textile and Fashion Technology) (Two-Years)**
- **M.Sc. (Home Science - Textile and Fashion Technology) (One-Year)**

Exit option: P.G. Diploma (44 Credits) after Three Year UG Degree									
Year (2 Yr P.G.)	Level	Sem. (2 Yr)	Major		RM	OJT/ FP	RP	Cum. Cr.	Degree
			Mandatory*	Electives (Any one)					
II	6.5	Sem-III	C1 – Business Management and Administration in the Textile & Fashion Industry (Th) (4 Cr)	E1 – A) Computer Aided Designing for Apparel Sector (Th) (2 Cr)			Research Project in Textile and Fashion Technology (Th) (4 Cr)	22	P.G. Diploma (after 3 Year Degree)
			C2 – A) Technical Textiles (Th) (2 Cr)	E1 – B) Computer Aided Designing for Apparel Sector (Pr) (2 Cr)					
			C2 – B) Textile Finishing and Testing (Pr) (2 Cr)	OR					
			C3 – A) Pattern Making & Garment Construction for Womenswear (Knits) (Pr) (2 Cr)	E2 – A) Computer Aided Designing for Home Products (Th) (2 Cr)					
			C3 – B) Draping for Womenswear (Woven & Knits) (Pr) (2 Cr)	E2 – B)					
			C4 - World Textile Embroideries & Textile Crafts (Pr) (2 Cr)	Computer Aided Designing for Home Products (Pr) (2 Cr)					
Sem – III (For M.Sc. Degree Two Years & One Year)			14	4	-	-	4	22	

Note:

1. Curriculum will be enriched with Extension Work and Educational Trips for experiential learning with supplemental credits.
2. Students are required to complete one/more MOOC through any platform such as NPTEL, SWAYAM, COURSERA, Future Learn, etc. with certification for supplemental credits.

CREDIT STRUCTURE OF THE PROGRAMME (SEMESTER – IV)
(Table as per Parishishta 1 with sign of HOD and Dean)

R _____

Post Graduate Programmes in University

- **M.Sc. (Home Science - Textile and Fashion Technology) (Two-Years)**
- **M.Sc. (Home Science - Textile and Fashion Technology) (One-Year)**

Year (2 Yr P.G.)	Level	Sem. (2 Yr)	Major		RMOJT/RP FP			Cum. Cr.	Degree
			Mandatory*	Electives (Any one)					
II	6.5	Sem- IV	C1 – A) Garment Production Technology (Th) (2 Cr)	E1 – Apprenticeship -Textile Testing in Laboratories (Pr) (4 Cr) OR			Research Project in Textile and Fashion Technology (6 Cr)	22	P.G. Diploma (After 3 Year Degree)
			C1 – B) Seminar: Trends in Textile and Fashion Industry (Th) (2 Cr)	E2 – Apprenticeship - Sustainable Start- ups and Entrepreneurial Ventures in					
			C2 – A) Pattern Making & Garment Construction for Menswear (Knits) (Pr) (2 Cr)	Apparel/Product Development with NGOs and Artisans (Pr) (4 Cr)					
			C2 – B) Costume Styling (Pr) (2 Cr)						
			C3 – A) Intellectual Property Rights in the Textile and Apparel Industry (Th) (2 Cr) C3 – B) Alternative Health Strategies and Interventions (Pr) (2 Cr)						
Sem – IV (For M.Sc. Degree Two Years & One Year)			12	4	-	-	6	22	
Cum. Cr. For 1 year P.G. Degree			26	8	-	-	10	44	
Cum. Cr. For 2 year P.G. Degree			54	16	4	4	10	88	

Note:

1. Curriculum will be enriched with Extension Work and Educational Trips for experiential learning with supplemental credits.
2. Students are required to complete one/more MOOC through any platform such as NPTEL, SWAYAM, COURSEERA, Future Learn, etc. with certification for supplemental credits.

Note: * The number of courses can vary for totaling 14 Credits for Major Mandatory Courses in a semester.

Sign of the Head of Institute

Sign of Dean

Name of the Head of the Institute

Name of the Dean

I/C Principal

Dr. Anuradha J. Baskhi

Name of the Faculty

Name of the Department:

Textile & Fashion Technology

Syllabus: M.Sc. (Home Science – Textile & Fashion Technology)

Semester I (_____)

Level 6.0

Cumulative Credits: 22

Mandatory Course (Credits)

Code _____	Course 1	Credits 4	Fibre Science (Th)
Code _____	Course 2 A	Credits 2	Textile Finishing (Th)
Code _____	Course 2 B	Credits 2	Textile Colouration (Pr)
Code _____	Course 3 A	Credits 2	Pattern Making & Garment Construction for Womenswear (Woven) (Pr)
Code _____	Course 3 B	Credits 2	Home Textile - Designing & Product Development (Pr)
Code _____	Course 4	Credits 2	Descriptive Statistics in Home Science (Th)

Elective - Course 5 (Credits 4)

Code _____ E1 – A) Fashion Photography & Videography (Th) (2 Cr)

Code _____ E1 – B) Fashion Photography & Videography (Pr) (2 Cr)

OR

Code _____ E2 – A) Fashion Writing (Th) (2 Cr)

Code _____ E2 – B) Fashion Writing (Pr) (2 Cr)

Research Methods - Course 6 (Credits 4)

Code _____ C5 - Research Methods in Home Science (Th)

Note:

1. Curriculum will be enriched with Extension Work and Educational Trips for experiential learning with supplemental credits.
2. Students are required to complete one/more MOOC through any platform such as NPTEL, SWAYAM, COURSEARA, Future Learn, etc. with certification for supplemental credits.

Semester II (_____)

Level 6.0

Cumulative Credits: 22

Mandatory Course (Credits

Code _____	Course 1 A	Credits 2	Global Fashion (Th)
Code _____	Course 1 B	Credits 2	Trend Forecasting (Th)
Code _____	Course 2	Credits 4	Global Textiles & Apparel: Marketing, Merchandising and Entrepreneurship (Th)
Code _____	Course 3 A	Credits 2	Pattern Making & Garment Construction for Menswear (Woven) (Pr)
Code _____	Course 3 B	Credits 2	Accessory Development (Pr)
Code _____	Course 4	Credits 2	Advanced Statistics in Home Science (Th)

Elective Course (Credits 4)

Code _____ E1 – A) Surface Embellishment (Th) (2 Cr)

Code _____ E1 – B) Surface Embellishment (Pr) (2 Cr)

OR

Code _____ E2 – A) Fashion Illustration (Th) (2 Cr)

Code _____ E2 – B) Fashion Illustration (Pr) (2 Cr)

On-Job Training/ Field Project in Textile and Fashion Technology (Credits 4)

Code _____ C5 On-Job Training / Field Project (Pr)

Note:

1. Curriculum will be enriched with Extension Work and Educational Trips for experiential learning with supplemental credits.
2. Students are required to complete one/more MOOC through any platform such as NPTEL, SWAYAM, COURSERA, Future Learn, etc. with certification for supplemental credits.
3. Students are required to do Summer Internship as a mandatory requirement of four weeks with supplemental credits.

Semester III (_____)

Level 6.5

Cumulative Credits: 22

Mandatory Course (Credits

Code _____	Course 1	Credits 4	Business Management and Administration in the Textile & Fashion Industry (Th)
Code _____	Course 2 A	Credits 2	Technical Textiles (Th)
Code _____	Course 2 B	Credits 2	Textile Finishing and Testing (Pr)
Code _____	Course 3 A	Credits 2	Pattern Making & Garment Construction for Womenswear (Knits) (Pr)
Code _____	Course 3 B	Credits 2	Draping for Womenswear (Woven & Knits) (Pr)
Code _____	Course 4	Credits 2	World Textile Embroideries & Textile Crafts (Pr)

Elective Course (Credits 4)

Code _____ E1 – A) Computer Aided Designing for Apparel Sector (Th) (2 Cr)

Code _____ E1 – B) Computer Aided Designing for Apparel Sector (Pr) (2 Cr)

OR

Code _____ E2 – A) Computer Aided Designing for Home Products (Th) (2 Cr)

Code _____ E2 – B) Computer Aided Designing for Home Products (Pr) (2 Cr)

Research Project (Credits 4)

Code _____ C5 Research Project in Textile and Fashion Technology (Pr)

Note:

1. Curriculum will be enriched with Extension Work and Educational Trips for experiential learning with supplemental credits.
2. Students are required to complete one/more MOOC through any platform such as NPTEL, SWAYAM, COURSERA, Future Learn, etc. with certification for supplemental credits.

Semester IV (_____)

Level 6.5

Cumulative Credits: 22

Mandatory Course (Credits

Code _____	Course 1 A	Credits 2	Garment Production Technology (Th)
Code _____	Course 1 A	Credits 2	Seminar: Trends in Textile and Fashion Industry (Pr)
Code _____	Course 2 A	Credits 2	Pattern Making & Garment Construction for Menswear (Knits) (Pr)
Code _____	Course 2 A	Credits 2	Costume Styling (Pr)
Code _____	Course 3 A	Credits 2	Intellectual Property Rights in the Textile and Apparel Industry (Th)
Code _____	Course 3 B	Credits 2	Alternative Health Strategies and Interventions (Pr)

Elective Course (Credits 4)

Code _____ E1 – A) Apprenticeship -Textile Testing in Laboratories (Pr) (4 Cr)

OR

Code _____ E2 – A) Apprenticeship - Sustainable Start-ups and Entrepreneurial Ventures in Apparel/Product Development with NGOs and Artisans (Pr) (4 Cr)

Research Project (Credits 6)

Code _____ C5 - Research Project in Textile and Fashion Technology (Pr)

Note:

1. Curriculum will be enriched with Extension Work and Educational Trips for experiential learning with supplemental credits.
2. Students are required to complete one/more MOOC through any platform such as NPTEL, SWAYAM, COURSERA, Future Learn, etc. with certification for supplemental credits.

Semester I

SEMESTER I: Mandatory Courses

M.Sc. (Home Science – Textile & Fashion Technology)

(Under NEP)

Semester I – Fibre Science (Credits 4)

Subject Code: _____

Year	Level	Semester	Major-Mandatory/Major-Elective/ RM/ OJT/FP/RP	Marks
2 Years M.Sc.	6	I	Mandatory	100
Course Code	Title of the course	Theory /Practical	Credits	No. of Hours
C1	FIBRE SCIENCE	Theory	4	60

Course Objectives:

The course will enable the students to study:

- Morphology, chemical constitution and manufacturing processes of natural fibres
- Physical and chemical properties and uses of natural fibres
- Raw materials used and the manufacturing processes of regenerated and synthetic fibres
- Physical and chemical properties and uses of regenerated and synthetic fibres
- Ecological issues that arise during cultivation and/or rearing and/or manufacturing of natural, regenerated and synthetic fibres and recent developments in the field of these fibres

Course Outcome:

After successful completion of the course, a student will be able to:	
CO1	Remember and understand the morphology, chemical constitution and manufacturing processes of cellulosic, protein fibres, regenerated and synthetic fibres
CO2	Apply this knowledge for understanding the chemical reactions of these natural fibres with various chemical reagents
CO3	Analyse and assess the physical and chemical effects of various factors/reagents on these natural, regenerated and synthetic fibres
CO4	Use the knowledge already gained to evaluate the ecological concerns in the manufacturing and processing of natural, regenerated and synthetic fibres
CO5	Extend the knowledge to understand the recent developments in the field of natural, regenerated and synthetic fibres

Syllabus:

Unit No.	Course Content	Hours
Unit I	A. Natural cellulosic fibres i. Chemistry of cellulose: Chemical composition and constitution ii. Reactivity of different hydroxyl groups, hydrolysis and oxidation of cellulose, estimation of the extent of degradation iii. Physical morphology, structure, properties, uses and ecological concerns in cultivation and processing of: <ul style="list-style-type: none">• Cotton• Jute	15
Unit II	A. Natural protein fibres i. Chemistry of proteins- chemical composition and constitution of proteins ii. Physical morphology, structure, properties uses and ecological concerns in rearing and processing of : <ul style="list-style-type: none">• Wool• Silk	15
Unit III	A. Manmade fibres: Regenerated fibres i. Regenerated cellulosic fibres Raw materials, manufacturing process, physical, chemical properties uses and ecological concerns in manufacturing of: <ul style="list-style-type: none">• Viscose rayon• Polynosic ii. Modified cellulosic fibres Raw materials, manufacturing process, physical, chemical properties and ecological concerns in manufacturing of Acetate rayon iii. Other regenerated fibres currently in use: <ul style="list-style-type: none">• Lyocell• Zein• Casein• Azlon	15
Unit IV	A. Manmade fibres: Synthetic fibres i. Synthesis of raw material, manufacturing process, properties and ecological concerns in manufacturing major synthetic fibres <ul style="list-style-type: none">• Polyamides• Polyester• Acrylic ii. Blends currently used iii. Other synthetic fibres currently in use: <ul style="list-style-type: none">• Aramids• Elastomers• Carbon• Teflon	15

References:

- Carter, E. M. (1971). Essentials of Fibre chemistry. Marcel Dekker.
- Chakravarty, R. R. (1972). A glimpse on the chemical technology of textile fibres. The Canton Press.
- Chapman, C. B. (1972). Fibres. Butterworths and Company.
- Cook, J. G. (1984). Handbook of textile fibres. (5th Ed.) Duram Merrow.
- Corbman, P. B. (1985). Textiles: Fibre to fabric. (6th Ed.) McGraw Hill Book.
- Gulrajani, M. L. (1985). Man-made textiles in developing countries. The Textile Association.
- Grayson, M. (1984). Encyclopedia of textile, Fibre and nonwoven fabrics. John Wiley & Sons.
- Hollen, N. & Saddler, J. (1988) Textiles. (6th Ed.). Macmillan.
- Howard, L. N. (1986). Textiles: fibres, dyes, finishes and processes. Elsevier
- Kothari, V. K. (2000). Textile Fibres: development and innovation. Vol. II.: I.A.F.L. Publication.
- Kornreich, E. (1966). Introduction to fibres and fabrics. Heywood books.
- Lewin, M., & Pearce, M. E. (1998). A handbook of Fibre chemistry. Marcel Dekker.
- Marjory, L. J. (1977). Introductory textile science. (3rd Ed.).
- Mishra, S. P. (2000). A textbook of Fibre science and technology. New Age.
- Moncrieff, R. W. (1975). Manmade fibres. Wiley.
- Morton, W. E. & Hearle, W. S. (1975). Physical properties of textile fibres. The Textile Institute.
- Murthy, H. V. (1987). Introduction to textile fibres. The Textile Association of India.
- Porczynski, C. Z. & Carroll. (1961). Manual of manmade fibres. Astex Publishing.
- Sadov, F., Korchanging, M. & Matelsky A. (1973). Chemical technology of fibrous materials. MIR Publications.
- Shenai, V. A. (1977). Textile fibres. Vol. I Sevak.
- Steven, B. W. (1975). Fibre science. Prentice Hall.
- Tammanna, N. S. (1973). Handbook of silk technology. Wiley Eastern.
- Tortora, G. P. (1992). Understanding textiles. (4th Ed.) Macmillan.
- Wynne, A. (1997). Textiles-The motivate series. Macmillan Education Ltd.

Evaluation:

Continuous Internal Evaluation	Marks
Review of literature and guided discussions	10 marks
Class tests	15 marks
Quiz	10 marks
PPT Presentations for example Fibre Manufacturing and Eco-concerns	15 marks
Total	50 marks

Semester-End Theory Examination	
All questions are compulsory with internal choice.	
Question 1 - Unit 1	10 marks
Question 2 - Unit 2	10 marks
Question 3 - Unit 3	10 marks
Question 4 - Unit 4	10 marks
Question 5 – Multiple Units	10 marks
Total	50 marks

M.Sc. (Home Science – Textile & Fashion Technology)

(Under NEP)

Semester I – Textile Finishing (Credits 2)

Subject Code: _____

Year	Level	Semester	Major-Mandatory/ Major-Elective/ RM/ OJT/ FP/ RP	Marks
2 Years P.G.	6	I	Mandatory	50
Course Code	Title of the Course	Theory/Practical	Credits	No. of Hours
C2A	TEXTILE FINISHING	Theory	2	30

Course Objectives:

The course will enable the students to study the:

- Chemicals used in textile finishing
- Essential properties imparted on fabrics through finishes for varied end uses
- Recent developments in various finishing processes

Course Outcome:

After successful completion of the course, a student will be able to:	
CO1	Understand and categorize the textile auxiliaries used in textile processing
CO2	Explain the various textile finishing processes
CO3	Compare and contrast the various types of surfactants and their applications
CO4	Identify and describe various textile finishes
CO5	Understand the mode of action of various textile finishes
CO6	Explain the effect of different textile finishes on various textile material
CO7	Understand the eco-concerns of the textile finishes
CO8	Identify the recent trend advancement in textile finishes

Syllabus:

Unit No.	Course Content	Hours
Unit I	A. Introduction and classification of textile auxiliaries and methods of application B. Chemical finishing processes for textile and garments C. Surfactants and soaps- Cationic, anionic and non-ionic surfactants, soaps D. Textile and garment finishes (chemicals used, application methods, mode and mechanism of reaction) - <ul style="list-style-type: none">• Softening finish	15

	<ul style="list-style-type: none"> • Easy care / durable press finish • Stiffening finish • Finishing with enzymes 	
Unit II	<p>A. Textile and garment finishes (chemicals used, application methods, mode and mechanism of reaction):</p> <ul style="list-style-type: none"> • Flame retardant finish • Anti-static finish • Anti-pilling finish • UV protection finish • Antimicrobial and anti-fungal finish • Water repellent and water proof finish • Soil release finish • Non slip finish <p>B. Eco concerns of the finishes</p> <p>C. Future trends in chemical finishing</p>	15

References:

- Charan, K. (1980). Technology of laundry and toilet soaps. S. B. Publications.
- Davidson, A. and Milwidsky, B. M. (1978). Synthetic detergent. The Book Center.
- Hall, A. J. (1986). Textile finishing. American Elsevier.
- Nallankilli, G. and Jayaprakashan, S. (1997). Textile finishing. S. S. M. Publications.
- Reevco, W. A., Orake, G. K. and Perkins, R. M. (1974). Fire resistant textiles: handbook. Technomic.
- Schindler, W.D. and Hauser, P.J. (2000). Chemical finishing of textiles. Woodhead Publishing Ltd.
- Shenai, V. A. (1980). Chemistry of textile auxiliaries. Vol V. Sevak.
- Srivastava, S. B., Gupta, R. K. and Gupta, R. (1980). Household Detergents and Industrial Surfactants. Small Business.

Evaluation:

Continuous Internal Evaluation	Marks
Quiz, Review of literature and guided discussions, Q&A sessions	10 marks
Class tests	05 marks
PPT Presentations: Novel textile finishes and effects, recent advances and ecological concerns	10 marks
Total	25 marks

Semester-End Theory Examination	
All questions are compulsory with internal choice.	
Question 1 - Unit 1	10 marks
Question 2 - Unit 2	10 marks
Question 3 – Multiple units	05 marks
Total	25 marks

M.Sc. (Home Science – Textile & Fashion Technology)

(Under NEP)

Semester I Textile Coloration (Credits 2)

Subject Code: _____

Year	Level	Semester	Major-Mandatory/ Major-Elective/ RM/ OJT/ FP/ RP	Marks
2 Years P.G.	6	I	Mandatory	50
Course Code	Title of the Course	Theory/Practical	Credits	No. of Hours
C2B	TEXTILE COLOURATION	Practical	2	60

Course Objectives:

The course will enable the students to study and experiment using:

- Dyes, pigments and chemicals used in textile colouration and their application on various fabrics.
- Chemical and eco-friendly methods of dyeing and printing of textiles to create various coloured effects.
- Various test standards for testing of dyed and printed textiles.
- Recent developments in various dyeing and printing processes.

Course Outcome:

After successful completion of the course, a student will be able to:	
CO1	Apply different dyes and print designs on fabrics using colorants, auxiliaries and eco-friendly methods to create various effects
CO2	Comprehend industry recommended procedures for dyeing and printing on different fabric types to enhance of their aesthetic properties
CO3	Evaluate dyed and printed fabrics as per standard testing methods
CO4	Adopt scientific methods of reporting dyeing / printing procedures, subsequent to test observations and results of the properties evaluated

Syllabus:

Unit No.	Course Content	Hours
Unit I	A. Creating various fashion effects through dyeing with direct, resist and discharge styles of colouration with dyeing and printing using different classes of dyes for example direct, acid, reactive, basic, azoic, etc. with the laboratory equipment and suitable methods of exhaustion, pad-dry-cure, etc. B. Portfolio Development	30
Unit II	A. Creating fashion effects through printing using blocks, screens, digital methods, etc. B. Testing of the dyed and printed samples C. Portfolio Development	30

References:

- Angappan, P. &Gopalkrishnan R. (1993). Textile Testing. S.S.M. Institute of Technology.
- Burkinshaw, S. M. (1995). Chemical principles of synthetic Fibre dyeing. Blackie Academic and Professional.
- Cegarra, J. P. and Valladperas, J. (1992).The dyeing of textile manual, the scientific bases and the techniques of application. NecovaOfllito.
- Charan, K. (1980). Technology of laundry and toilet soaps. S. B. Publications.
- Collier B.J. (1999) Textile Testing and Analysis. New Jersey: Prentice Hall.
- Colliner, B. J & Tortora, P. G. (2001). Understanding Textiles. (6th Ed.) Prentice Hall Inc.
- Corbman, B. P. (1983). Textiles: Fibre to Fabric (6th Ed.) McGraw Hill.
- D'Souza, N. (1998). Fabric Care. New Age International.
- David, G., Snclair, Roy, S. (1989). Giles laboratory course in dyeing (4th Ed.) Society of Dyers and Colourist.
- Deulkar, D. (1976). Household Textiles and Laundry Work. Atmaram Sons.
- Gittenger, M. (1982) Master dyers of the world. The Textile Museum.
- Gulrajani, M. L. and Gupta, S. (1990) Wool dyeing and printing. Department of Textile Technology IIT.
- Handbook of Textile Testing, Bureau of Indian Standards. (1990). Testing and Grading of Textile Fibres. Part 1 New Delhi: Bureau of Indian Standards
- Handbook of Textile Testing, Bureau of Indian Standards. (1991).
- Identification and Testing of dyestuff and Colour Fastness on Textile Materials. Part 1V New Delhi: Bureau of Indian Standards.
- Joseph, M. L. (1986). Introductory textile science (5th Ed.) Holt, Rinehart and Winston.
- Kadolph, Langford, Hollen & Saddler (1993). Textiles. Macmillan.

- Koshy, T. D. (2001). Silk production and export management. A.P.H Publishing Corporation.
- Lewis, D.M. (Ed). (1992) Wool dyeing. Society of Dyers and Colourist.
- Marsh, J. T. (1979). Introduction to Textile Finishing. BI Publication
- Mishra, S. P. (2020) Science and Technology of Textile Dyeing and Colouring 2nd Edition New Age International (P) Ltd Publishers.
- Ponting, K. G. (1981).A dictionary of dyes and dyeing. Bell and Hymen Ltd.
- Rouette, H. K. (2001). Encyclopedia of textile finishes. Berlin: Springer Verlag.
- Prayag, R. S. (1989). Dyeing of wool, silk and man-made fibres. Noves Data Corporation. Srivastav, S. B. Recent process of textile bleaching, dyeing and finishing. SBP Consultants and Engineers.
- Rouette, H. K. (2001). Encyclopedia of Textile Finishing. Vol I, II & III Springer.
- Shenai, V. A. (1985). Technology of dyeing: Technology of textile processing. Vol.VI. Sevak Publication.
- Shenai, V. A. (1985). Technology of printing: Technology of textile processing. Vol. IV. Sevak Publication.
- Shenai, V. A. (1998) Toxicity of dyes and intermediates. Sevak Publication.
- Shenai, V. A. (1999). Azo dyes: Facts and figures. Sevak Publication.
- Shenai, V. A. and Saraf, N. (1991) Dictionary of textiles. Sevak Publication.
- Shenai, V.A. (1980). Evaluation of Textile Chemicals Bombay Sevak Publication
- Story, J. (1985). The Thames and Hudson Manual of textile dyes and fabrics. Thames and Hudson.
- Story, J. (1985). The Thames and Hudson Manual of textile printing. Thames and Hudson.
- Testing and Grading of Textile Fibres. (1989) Part 111 New Delhi: Bureau of Indian Standards Handbook of Textile Testing, Bureau of Indian Standards.
- Vigo, T. L (1997).Textile processing and properties, preparation, dyeing finishing and performance. Elsevier Sciences.
- Wynne, A. (1997). Textiles: Motivate Series. Macmillan Company.
- Yusuf, M, & Shahid, M. (2022) Emerging Technologies for Textile Coloration 1st Edition CRC Press.

Evaluation:

Continuous Internal Evaluation	Marks
Internal Assessment during laboratory work	10 marks
Stage-wise assessment of dyed and printed samples, colour development and designs or colour effects produced on samples	05 marks
Journal writing & Viva-Voce	10 marks
Total	25 marks

Semester-End Practical Examination	
All questions are compulsory with internal choice.	
Question 1 - Unit 1	10 marks
Question 2 - Unit 2	10 marks
Journal & Viva-Voce	05 marks
Total	25 marks

M.Sc. (Home Science – Textile & Fashion Technology)

(Under NEP)

**Semester I Pattern Making & Garment Construction - Womenswear (Woven)
(Credits 2)**

Subject Code: _____

Year	Level	Semester	Major-Mandatory/Major-Elective/RM/OJT/FP/RP	Marks
2 Years P.G.	6	I	Mandatory	50
Course Code	Title of the course	Theory /Practical	Credits	No. of Hours
C 3A	PATTERN MAKING & GARMENT CONSTRUCTION - WOMENSWEAR (WOVEN)	Practical	2	60

Course Objectives:

The course will enable the students:

1. To study the advanced techniques of pattern making for different styles of clothing for women.
2. To identify, analyze and source different types of fabrics for particular end-uses.
3. To get acquainted with the skill of handling different materials and patterns.
4. To adapt constructed blocks to the given patterns and grading according to different sizes.
5. To plan economical layouts of pattern pieces on fabric for cutting.
6. To train students with various techniques of apparel construction.

Course Outcome:

After successful completion of the course, a student will be able to:	
CO1	Interpret designs / sketches systematically and develop patterns
CO2	Explore the knowledge related to advanced techniques of pattern making and create a variety of patterns
CO3	Evaluate and identify trends in local markets through fabric sourcing to create garments
CO4	Apply the techniques of apparel making and achieve the desired design variations while creating garments
CO5	Create theme relevant boards which are essential to the design process
CO6	Create professional portfolio for interviews and other job profile

Syllabus:

Unit No.	Course Content	Hours
Unit I	A. Revision of Adult's Basic Block, Sleeve, Torso block, Skirts, Displacements & Concealments B. Drafting of yokes, gathers, pleats for upper and lower garments C. Drafting of sleeves (Kimono, Dolman) D. Pattern making & Garment Construction of Designer Western wear (Top / Blouse with Trousers / Culottes) E. Product and Portfolio Development	30
Unit II	A. Drafting and adapting patterns (along with draft instructions and markings) using anthropometric measurements and grading of upper and lower block B. Pattern Making & Garment Construction of Designer Indian wear (Ghaghra/Lehenga/Sharara/Gharara and Choli) C. Product and Portfolio Development	30

*Construction of the above garments using plackets (Kurta/double shirt placket/continuous Kurta), collars (Reversible/Chinese/ Shawl and Danton, yokes (T- / U-/Straight) and gussets (simple/ sleeve/ strip), pockets (side seam pocket/velt pocket/ bound pocket/ front pant pocket) zips (with seam/ invisible zip/ zip with fly).

*Portfolio Presentation

References:

- Aldrich, W. (1996). Fabric Form and flat pattern cutting. Blackwell Science.
- Armstrong, H. J (1986). Pattern making for fashion designing. Harper Collins
- Armstrong, H. (1987). Pattern making for fashion design. Harper & Row.
- Bane, A. (1972). Flat pattern design. McGraw Hill
- Batsford. Graff. J. L. (1976). Concepts in clothing. McGraw Hill.
- Braddock, S. F. (1998). Techno-textiles: revolutionary fabrics for fashion and design. Thames and Hudson
- Bradley, G. (1954). Costume design. (3rd Ed.). Searton International Textbook
- Bray, N. (1970). Dress fitting: The basic principles of cut and fit. (5th Ed.) Crosby Lockwood and sons
- Bray, N. (1978). More dress pattern designing. (4th Ed.). Granada, Blackwell Science.
- Carr, H. and Latham, B. (1994). The Technology of clothing manufacture. (2nd Ed.). Blackwell Science
- Cooklin, G. (1992). Pattern grading for women's clothes: the technology of sizing. S.P. Professional Books.
- Cooklin, G. (1995). More patterns and grading for women's outside. Blackwell Science
- Dunn, L., Bailey. A. & Draper. W. (1970). Steps in clothing skills. Chas A. Bennett

Goulbourn, M. (1971). Introducing pattern cutting: Grading and modeling. Batsford.
 J. M. (1967). Coordinated pattern fit. Burgess Publishing
 Littman, C, (1977). Pattern making design: Skirts and pants, Delmar
 Minott. J. (1978). Fitting commercial patterns. Minnesota Burgess.
 Muke, A. (1980) A French touch -1. Hermann Printing & Litho
 Stanley. H. (1977). Modeling and flat cutting for fashion. Hutchison
 Toledo, R. (1996). Style dictionary. Abbeville Press.

Evaluation:

Continuous Internal Evaluation	Marks
Internal Assessment during laboratory work	10 marks
Stage-wise assessment of class work of fundamentals and garments	05 marks
Journal writing & Viva-Voce	10 marks
Total	25 marks

Semester-End Practical Examination	
All questions are compulsory with internal choice.	
Question 1 - Unit 1	10 marks
Question 2 - Unit 2	10 marks
Portfolio	03 marks
Viva-Voce	02 marks
Total	25 marks

M.Sc. (Home Science – Textile & Fashion Technology)

(Under NEP)

Semester I Home Textiles - Designing & Product Development (Credits 2)

Subject Code: _____

Year	Level	Semester	Major-Mandatory/Major-Elective/RM/OJT/FP/RP	Marks
2 Years P.G.	6	I	Mandatory	50
Course Code	Title of the Course	Theory/Practical	Credits	No. of Hours
C3 B	HOME TEXTILES- DESIGNING AND PRODUCT DEVELOPMENT	Practical	2	60

Course Objectives:

The course will enable the students:

1. To be acquainted with advanced techniques of pattern making for different products
- and styles of home textile products
2. To identify, analyze and select different types of fabrics for particular end-uses.
3. To be acquainted with the skill of handling different materials and patterns.

Course Outcome:

After successful completion of the course, a student will be able to:	
CO1	Remember and understand the techniques of pattern making for different products and styles of homemade- ups
CO2	Understand and apply the current market trends for different home textile products
CO3	Identify different fabrics and textures and apply the knowledge and skill for making different home textile products along with the cost sheet
CO4	Adapt constructed blocks to the given patterns and grade according to different sizes
CO5	Identify and analyze the selection of different types of fabrics for particular end-uses
CO6	Create a portfolio relevant to home textiles

Syllabus:

Unit No.	Course Content	Hours
Unit I	A. Home Textiles Designing and Product Development for Bedroom and Living room i. Study of different brands and types of made-ups in the market ii. Study of different materials available in the market for the development of home textile products- conventional and contemporary iii. Classification, and sizing of home textile products iv. Designing, drafting, and construction of products B. Product and Portfolio Development	30
Unit II	A. Home Textiles Designing and Product Development for Kitchen and Bathroom i. Study of different brands and types of made-ups in the market ii. Study of different materials available in the market for the development of kitchen and bathroom- conventional and contemporary iii. Classification, sizing of home textile products iv. Designing, drafting and construction products B. Product and Portfolio Development	30

References:

- Anna Hong, R. (1935) Home Furnishing. Wiley and Sons.
- Chapman, and Hall, H. L. (2001) Lets home decorator, soft furnishing. Charles Letts & Co.
- De Van and Dorothy, (1964). Introduction to home furnishing. Mac Milan Co.
- Deshpande, R.S. (1971). Building your own home. United Book Corporation.
- Deshpande, R.S. (1978). Modern Ideal homes for India. United Book Corporation.
- Readers Digest, (1997). The complete book of sewing.
- Winget, I. (1946). Textiles& their selection. Prentice-Hall, Inc.

Evaluation:

Continuous Internal Evaluation	Marks
Internal Assessment during laboratory work	10 marks
Stage-wise assessment of class work of home textile products developed	05 marks
Journal writing & Viva-Voce	10 marks
Total	25 marks

Semester-End Practical Examination	
All questions are compulsory with internal choice.	
Question 1 - Unit 1	10 marks
Question 2 - Unit 2	10 marks
Portfolio	03 marks
Viva-Voce	02 marks
Total	25 marks

M.Sc. (Home Science – Textile & Fashion Technology)

(Under NEP)

Semester I – Descriptive Statistics in Home Science (Credits 2)

Subject Code: _____

Year	Level	Semester	Major-Mandatory/Major-Elective/RM/OJT/FP/RP	Marks
2 Years P.G.	6	I	Mandatory	50
Course Code	Title of the course	Theory /Practical	Credits	No. of Hours
C4	DESCRIPTIVE STATISTICS IN HOME SCIENCE	Theory	2	30

Course Objectives:

1. To help students value the sine qua non role of statistics in quantitative research.
2. To enable in students the skills in selecting, computing, interpreting and reporting descriptive statistics.
3. To facilitate comprehension of elementary concepts in probability.
4. To introduce students to a specialized statistical software such as SPSS.

Course Outcome:

After successful completion of the course, a student will be able to:	
CO1	Identify the level of measurement of a variable and the corresponding suitable statistical technique to describe this variable.
CO2	Differentiate between, evaluate, and select different descriptive statistical techniques to numerically summarize data.
CO3	Identify, differentiate between, evaluate, and select different descriptive statistical techniques to graphically summarize data.
CO4	Have necessary knowledge and skills to design and conduct descriptive research studies.
CO5	Use SPSS for data entry, data management, and descriptive statistics effectively.

Syllabus:

Unit No.	Course Content	Hours
Unit I	<p>A. Introduction and overview to statistics</p> <p>(i) Role of statistics in (quantitative) research</p> <p>(ii) Definition/changing conceptions</p> <p>(iii) Prerequisite concepts in mathematics (e.g., basic algebra, properties of the summation sign)</p> <p>B. Descriptive Statistics for summarizing ratio level variables</p> <p>(i) Frequencies and percentages</p> <p>(ii) Computing an average/measure of a central tendency Mean, median, mode(s) Contrasting the mean vs. median Computing an average when there are outliers or extreme values in the data set Robust measures of the center (5% trimmed mean; M estimators) Quartiles and percentiles</p> <p>(iii) Computing a measure of variability or dispersion Why? (inadequacy of the mean) Minimum value and maximum value Range Interquartile range Variance and standard deviation</p> <p>(iv) Discrete and continuous variables</p> <p>(v) Histograms and line graphs</p>	15
Unit II	<p>A. Descriptive Statistics for summarizing nominal, ordinal and interval level variables</p> <p>B. Using specialised software such as SPSS</p> <p>(i) Data Entry</p> <p>(ii) Data Management</p> <p>(iii) Descriptive Statistics</p> <p>C. Probability</p> <p>(i) Definition</p> <p>(ii) Role of probability in research and statistics</p> <p>(iii) Elementary concepts in probability Sample space, experiment, event/outcome/element of the sample space Equally likely outcomes and the uniform probability model Stabilization of the relative frequency</p>	15

References:

- Bhattacharyya, G.K., & Johnson, R.A. (1977). *Statistical concepts and methods*. John Wiley. (classic)
- Jackson, S. L. (2012). *Research methods and statistics: A critical thinking approach* (4th ed.). Wadsworth Cengage Learning.
- Johnson, R. A., & Bhattacharyya, G. K. (2019). *Statistics: Principles and methods* (8th ed.). John Wiley.
- Martin, W. E., & Bridgmon, K. D. (2012). *Quantitative and statistical research methods*. Jossey-Bass.
- Kachigan, S. K. (1986). *Statistical analysis: An interdisciplinary introduction to*

univariate & multivariate methods. Radius Pr.

Kerlinger, F. N. & Lee, H. B. (2000). *Foundations of behavioral research.* Harcourt.

Wheelan, C. J. (2014). *Naked statistics: Stripping the dread from the data.* W.W. Norton.

Evaluation:

Continuous Internal Evaluation:	Marks
Written Short Quizzes	10 marks
SPSS data entry & descriptive statistical analysis assignment	5 marks
Problem-solving Exercises (in pairs or individually) & Practice Sums (individually)	10 marks
Total	25 marks

Semester-End Examination	
All questions are compulsory with internal choice.	
Question 1 from Unit 1	10 marks
Question 2 from Unit 2	10 marks
Question 3 from multiple units	5 marks
Total	25 marks

M.Sc. (Home Science – Textile & Fashion Technology)

(Under NEP)

Semester I Research Methods in Home Science (Credits 4)

Subject Code: _____

Year	Level	Semester	Major-Mandatory/Major-Elective/RM/OJT/FP/RP	Marks
2 Years P.G.	6	I	Mandatory	100
Course Code	Title of the course	Theory /Practical	Credits	No. of Hours
C5	RESEARCH METHODS IN HOME SCIENCE	Theory	4	60

Course Objectives:

- To build in students appreciation for high quality research in their specialization and allied areas.
- To help students master the knowledge and skills needed in conducting specialization-specific and interdisciplinary research relevant to the multiple disciplines under the umbrella of Home Science.
- To promote academic, research and professional ethics in students.
- To introduce students to principles of good scientific writing.

Course Outcome:

After successful completion of the course, a student will be able to:	
CO1	Appreciate high quality research in their specialization and allied areas.
CO2	Identify, differentiate between, evaluate, and select different sampling techniques and research designs for particular research aims.
CO3	Formulate a research proposal on a worthwhile topic in their discipline, as also on interdisciplinary topics.
CO4	Abide with ethical guidelines for research.
CO5	Develop knowledge and skills to contribute to their discipline through conducting primary and original research on socially relevant, green, and high priority topics.

Syllabus:

Unit No.	Course Content	Hours
Unit I	A. Introduction and overview (i) What is a research? (ii) Importance of research in general, and in each specialization of Home Science and allied areas; illustration of research in each specialization of Home Science and allied areas (iii) Steps in the research process (iv) Qualitative versus quantitative research (v) Objectivity and subjectivity in scientific inquiry: Pre-modernism, modernism, and postmodernism B. The beginning steps in the research process (i) Identifying broad areas of research in a discipline (ii) Identifying interest areas; using multiple search strategies (iii) Prioritizing topics; specifying a topic; feasibility (iv) Review of literature/scholarly argument in support of study (v) Specifying research objectives/hypotheses/questions	15
Unit II	A. Variables (i) Definition (ii) Characteristics (iii) Types (iv) Levels of measurement B. Measurement (i) Conceptual definitions and operational definitions (ii) Types of validity and reliability in quantitative research C. Data entry in quantitative research (i) Codebook and master-sheet (ii) Creating data files and data management	15
Unit III	A. Sampling techniques in quantitative research (i) Probability and nonprobability sampling methods in current use/examples from current research (ii) Issues with regard to sampling techniques B. Research designs in quantitative research Distinguishing between the following research designs; and, selecting research designs that are congruent with one's research purpose. (i) Experimental, quasi-experimental, and pre-experimental research designs; correlational research design Inferring causality, internal validity, external validity (ii) Epidemiological research designs (cross-sectional, cohort, & case-control studies); developmental research designs (cross-sectional, longitudinal, sequential research designs; additive, mediator & moderator models; cross-lagged panel analyses); survey and market research designs; meta-analysis (iv) Exploratory, descriptive, and explanatory designs (v) Mixed methods research designs	15
Unit IV	A. Qualitative research methods (i) Ideology/worldview of the qualitative researcher (ii) Research designs in qualitative research (iii) Sampling techniques in qualitative research	15

	(iv) Data collection methods in qualitative research (v) Data analytic strategies in qualitative research (vi) Reporting of results in qualitative research B. Scientific writing (i) Distinguishing scientific writing from popular and literary writing styles (ii) Publication guidelines (APA7); characteristics/principles of scientific writing; examples of good scientific writing (iii) Writing a research proposal/research grant; seeking funding (iv) Reporting statistical findings in text C. Ethics (i) In academia (ii) In research in general (iii) In research with human participants (Nuremberg Code, Belmont Report, ICMR Guidelines) (iv) In research with animal subjects	
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References:

- American Psychological Association. (2019). *Publication manual of the American Psychological Association* (7th ed.). APA.
- Bhattacharyya, G.K., & Johnson, R.A. (1977). *Statistical concepts and methods*. John Wiley. (classic)
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage.
- Denzin, N. K., & Lincoln, Y. S. (2011). *The Sage handbook of qualitative research*. Sage.
- Fraenkel, J. R., & Wallen, N. E. (2006). *How to design and evaluate research in education* (6th ed.). McGraw-Hill.
- Jackson, S. L. (2012). *Research methods and statistics: A critical thinking approach* (4th ed.). Wadsworth Cengage Learning.
- Martin, W. E., & Bridgmon, K. D. (2012). *Quantitative and statistical research methods*. Jossey-Bass.
- Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation* (4th ed.). John Wiley.
- Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Sage.
- Kerlinger, F. N. & Lee, H. B. (2000). *Foundations of behavioral research*. Harcourt.
- Leong, F.T.L. & Austin, J. T. (Eds.) (2006). *The psychology research handbook: A guide for graduate students and research assistants* (2nd ed.). Sage.
- Rubin, A., & Babbie, E. R. (2011). *Research methods for social work* (7th ed.). Thomson, Brooks/Cole.

Evaluation:

Continuous Internal Evaluation:	Marks
Written Short Quizzes	10 marks
Short Exercises	10 marks
Group project to be completed in pairs or threes: Formulating a Research Proposal on a High Priority Topic relevant to each student group's specialization; students can opt to work on interdisciplinary research project proposals with team members from more than one specialization of Home Science	30 marks
Total	50 marks

Semester-End Examination	
All questions are compulsory with internal choice.	
Question 1 from Unit 1	10 marks
Question 2 from Unit 2	10 marks
Question 3 from Unit 3	10 marks
Question 4 from Unit 4	10 marks
Question 5 from multiple units	10 marks
Total	50 marks

SEMESTER I: Elective Courses

M.Sc. (Home Science) – Textile & Fashion Technology

Under NEP

Semester I - Fashion Photography & Videography

Subject Code: _____

Year	Level	Semester	Major-Mandatory/Major-Elective/RM/OJT/FP/RP	Marks
2 Years M.Sc.	6	I	Elective	50
Course Code	Title of the course	Theory /Practical	Credits	No. of Hours
Elective E 1A	FASHION PHOTOGRAPHY & VIDEOGRAPHY	Theory	2	30

Course Objectives:

The course will enable the students to:

1. Incorporate various media for visual imagery from technical and artistic points of view
2. Understand the importance of visualization and observation in Fashion Photography and Videography

Course Outcome:

After successful completion of the course, a student will be able to:	
CO1	Describe the importance of photography and videography in the field of fashion
CO2	Compare the types of photography and videography for various uses.
CO3	Transfer the concept of production technique in the project development
CO4	Define the principles of lights in the photo shoot and categorize the various components of photography in desired shoots.
CO5	Develop the production plan to create visual communication of the fashion

Syllabus:

Unit No.	Course Content	Hours
Unit I	<p>A. Introduction to fashion photography</p> <ul style="list-style-type: none"> • History of fashion photography • Types of fashion photography • Basics of Fashion and Glamour Photography • Equipment and Camera setting • Guidelines for successful Fashion Shoot. <p>B. The role of locations, composition in photography</p> <p>C. Aesthetics of Photography</p> <ul style="list-style-type: none"> • Definition of Lighting , Light as subject, Shadow as subject, Principles of Visualization, Types of Perspectives <p>D. Director of photography-meaning and function</p>	15
Unit II	<p>A. Introduction to Fashion Videography</p> <ul style="list-style-type: none"> • Meaning and Definition of Videography – Evolution of Videography - History of Videography • Types of Fashion videography • Cinematography and videography in fashion • Fashion Films <p>B. The role of locations, composition in videography</p> <p>C. Lighting and lighting equipment's</p> <ul style="list-style-type: none"> • Definition of Lighting – Principles of Lighting, Light sources, Methods of Modifying Light <p>D. Post production techniques.</p>	15

References:

- Bill Cunningham B. (2019): *On the Street: Five Decades of Iconic Photography*
Hardcover, Clarkson Potter.
- Cutler E.P. & Tomasello, J. (2015), *Art and Fashion: Collaborations and Connections Between Icons*, Chronicle Books.
- Duncan N.H. (1979), *The History of Fashion Photography*, Alpine Book Company.
- Frisa, M.L. et al.,(2016). *Across Art and Fashion*, Mandragora.
- Herschdorfer, N. (2012), *Coming Into Fashion: A Century of Photography at Conde Nast*, Prestel.
- Kybalova, L. (1968). *Pictorial encyclopedia of fashion*. London: Hamlyn.
- McKelvey, K. (1996) *Fashion source book*. Oxford: Blackwell Science
- Milbank,C.R. (2015). *Fashion: A Timeline in Photographs: 1850 to Today*, Rizzoli.
- Nast, C. and Wintour, A.,(2012) *Vogue: The Editor's Eye*, Harry N. Abrams.

Ogawa, Y. (1990). *Colour in fashion: a guide to coordinating fashion colours*. Bombay: India Books.

Remy, P. (2014), *The Art of Fashion Photography*, Prestel.

Seigel, E. (2008), *Fashion Photography Course: Principles, Practice, and Techniques: An Essential Guide*, B.E.S. Publishing.

Seigel, E. (2008), *The Fashion Photography Course: First Principles to Successful Shoot - the Essential Guide Paperback*, Thames & Hudson

Werner, T. (2018). *The Fashion Image: Planning and Producing Fashion Photographs and Films*, Bloomsbury Visual Arts.

Evaluation:

Continuous Internal Evaluation:	Marks
Written Test	10 marks
Quiz	05 marks
PPT Presentations	10 marks
Total	25 Marks

Semester-End Theory Examination		
All questions are compulsory with internal choice.		
Question No.	Unit Content	Marks
Question 1	Unit 1	10
Question 2	Unit 2	10
Question 3	Multiple units	05
Total		25 Marks

**M.Sc. (Home Science) – Textile & Fashion Technology
(Under NEP)**

Semester I - Fashion Photography & Videography

Subject Code: _____

Year	Level	Semester	Major-Mandatory/Major-Elective/RM/ OJT/FP/RP	Marks
2 Years M.Sc.	6	I	Elective	50
Course Code	Title of the course	Theory /Practical	Credits	No. of Hours
Elective E 1B	FASHION PHOTOGRAPHY & VIDEOGRAPHY	Practical	2	60

Course Objectives:

The course will enable the students:

1. To enhance their creative skills of photography and videography
2. To explore various methods of photography and videography relevant to the recent developments in the field of fashion visual communication
3. To enhance their creative abilities to visualize, communicate, integrate and act
4. To present their work in the form of visual presentation and portfolio

Course Outcome:

After successful completion of the course, a student will be able to:	
CO1	Identify the trends in the fashion communication.
CO2	Compare the types of photography and videography for various uses.
CO3	Transfer the concept of production technique in the project development
CO4	Recognize the concepts of lights and location in the photo shoot and categorize the various components of photography in desired shoots.
CO5	Develop the production plan to create visual communication of the fashion
CO6	Plan the photography and videography of the fashion product and apparel based on the desired output

Syllabus:

Unit No.	Course Content	Hours
Unit I	A. Research and documentation Critical analysis of famous fashion photographers and their work (any one national/international), Study of Location & lighting – Indoor, outdoor and set designing B. Photography Creating mood boards / theme boards for fashion photography <ul style="list-style-type: none">• Editorial photography• High fashion photography• Street photography• Catalogue photography C. Portfolio Development	30
Unit II	A. Research and documentation Critical analysis of famous fashion cinematographer and videographer and their work (any one national/ international), Location & lighting – Indoor, outdoor and set designing B. Videography (Product and Apparel) Creating mood boards / theme boards for fashion videography <ul style="list-style-type: none">• Fashion Vlog• Fashion advertisement• Fashion short film C. Portfolio Development	30

References:

- Bill Cunningham B. (2019): *On the Street: Five Decades of Iconic Photography Hardcover*, Clarkson Potter.
- Cutler E.P. & Tomasello, J. (2015), *Art and Fashion: Collaborations and Connections Between Icons*, Chronicle Books.
- Duncan N.H. (1979), *The History of Fashion Photography*, Alpine Book Company.
- Frisa, M.L. et al., (2016). *Across Art and Fashion*, Mandragora.
- Herschdorfer, N. (2012), *Coming Into Fashion: A Century of Photography at Conde Nast*, Prestel.
- Kybalova, L. (1968). *Pictorial encyclopedia of fashion*. London: Hamlyn.
- McKelvey, K. (1996) *Fashion source book*. Oxford: Blackwell Science
- Milbank, C.R. (2015). *Fashion: A Timeline in Photographs: 1850 to Today*, Rizzoli.
- Nast, C. and Wintour, A., (2012) *Vogue: The Editor's Eye*, Harry N. Abrams.

- Ogawa, Y. (1990). *Colour in fashion: a guide to coordinating fashion colours*. Bombay: India Books.
- Remy, P. (2014), *The Art of Fashion Photography*, Prestel.
- Seigel, E. (2008), *Fashion Photography Course: Principles, Practice, and Techniques: An Essential Guide*, B.E.S. Publishing.
- Seigel, E. (2008), *The Fashion Photography Course: First Principles to Successful Shoot - the Essential Guide Paperback*, Thames & Hudson
- Werner, T. (2018). *The Fashion Image: Planning and Producing Fashion Photographs and Films*, Bloomsbury Visual Arts.

Evaluation:

Continuous Internal Evaluation	Marks
Internal Assessment during laboratory work	10 marks
Stage-wise assessment of class work on thematic presentations with forecasted colour trends	10 marks
Journal writing & Viva-Voce	5 marks
Total	25 marks

Semester-End Practical Examination		
All questions are compulsory with internal choice.		
Question No.	Unit Content	Marks
Question 1	Unit 1	10
Question 2	Unit 2	10
Journal/Portfolio		03
Viva Voce		02
Total		25 marks

M.Sc. (Home Science) – Textile & Fashion Technology
(Under NEP)

Semester I - Fashion Writing

Subject Code: _____

Year	Level	Semester	Major-Mandatory/Major-Elective/RM/OJT/FP/RP	Marks
2 Years M.Sc.	6	I	Elective	50
Course Code	Title of the course	Theory /Practical	Credits	No. of Hours
Elective E 2A	FASHION WRITING	Theory	2	30

Course Objectives:

The course will enable the students:

1. To understand the importance of fashion writing in the fashion industry
2. To explore different forms of fashion writing, such as features, trend reports, product descriptions etc.
3. To recognize the role of digital media and social platforms in fashion writing, and how to create impactful content for online platforms
4. To develop a deep understanding of fashion trends, designers, collections, and industry news

Course Outcome:

After successful completion of the course, a student will be able to:	
CO1	Understand the fundamental concepts and theories related to fashion writing
CO2	Develop an awareness of different types of fashion writing.
CO2	Develop critical thinking and analytical skills in evaluating fashion writing

Syllabus:

Unit No.	Course Content	Hours
Unit I	A. History of fashion writing and its evolution B. Introduction and scope of fashion writing <ul style="list-style-type: none"> • The basics of writing and types of writing • The art of storytelling in fashion writing • Elements of effective fashion writing: tone, structure, and style C. Introduction to fashion blogging and online platforms	15
Unit II	A. Ethics and responsibility in fashion writing B. Principles of reporting: research, interviewing, fact-checking C. Fashion analysis and criticism, elements of effective fashion criticism	15

References:

- Blanco, J. (2019). Fashion Blogging: Writing Powerful Fashion Journalism. HarperCollins
- Barnard, M. (2012). Fashion Journalism: History, Theory, and Practice. Routledge.
- Buckley, C. (2018). The Fashion System: Writing, Theory, and Practice of Fashion Communication. Bloomsbury Academic.
- Cosgrave, B. (2014). Writing About Fashion. Abrams.
- McNeil, P., & Miller, S. (Eds.). (2017). Fashion Writing and Criticism: History, Theory, Practice. Bloomsbury Visual Arts.
- Hainley, B. (2009). Fashion and Writing. Koenig Books.
- Jeshurun, C. (2016). Fashion Journalism and Fashion Styling: Ethics, Skills and Personal Branding. Fairchild Books.

Evaluation:

Continuous Internal Evaluation:	Marks
Review of fashion write-ups, blogs, editorials etc.	10 marks
Quiz and class tests on fashion writing related concepts	10 marks
PPT Presentations about fashion writers and their styles of writing	05 marks
Total	25 marks

Semester-End Theory Examination	
All questions are compulsory with internal choice.	
Question 1 from Unit 1	10 marks
Question 2 from Unit II	10 marks
Question 3 from multiple units	05 marks
Total	25 marks

**M.Sc. (Home Science) – Textile & Fashion Technology
(Under NEP)**

Semester I - Fashion Writing

Subject Code: _____

Year	Level	Semester	Major- Mandatory/Major- Elective/RM/ OJT/FP/RP	Marks
2 Years M.Sc.	6	I	Elective	50
Course Code	Title of the course	Theory /Practical	Credits	No. of Hours
Elective E 2B	FASHION WRITING	Practical	2	60

Course Objectives:

The course will enable the students to:

1. Enhance their writing and communication skills in the field of fashion
2. Adopt different kinds of media for effective fashion writing

Course Outcome:

After successful completion of the course, a student will be able to:	
CO1	Understand the fundamental concepts and theories related to fashion writing
CO2	Analyse and critique fashion communication, including advertisements, runway shows, and editorials
CO3	Compose and create well-structured and engaging fashion write-ups including news articles, features, and critiques, while adhering to journalistic standards and principles.
CO4	Utilize digital platforms for fashion communication, including creating and maintaining a fashion blog, integrating multimedia content, and crafting engaging social media posts.
CO5	Create a professional fashion writing portfolio that showcases a variety of writing samples, reflecting their skills, knowledge, and adaptability in the field.

Syllabus:

Unit No.	Course Content	Hours
Unit I	A. Exploring different forms of fashion writing features, reviews, trend reports, and news articles. B. Analyzing Fashion writings and evaluate design, aesthetics, cultural context and societal impact C. Writing critical reviews of fashion shows, collections or designer profiles D. Portfolio Development	30
Unit II	A. Writing fashion news articles on current industry trends or events B. Writing engaging product descriptions and retail detail. C. Developing a unique voice and style as a fashion blogger D. Creating a fashion blog and publish a series of short posts E. Portfolio Development	30

References:

- Blanco, J. (2019). *Fashion Blogging: Writing Powerful Fashion Journalism*. HarperCollins
- Barnard, M. (2012). *Fashion Journalism: History, Theory, and Practice*. Routledge.
- Buckley, C. (2018). *The Fashion System: Writing, Theory, and Practice of Fashion Communication*. Bloomsbury Academic.
- Cosgrave, B. (2014). *Writing About Fashion*. Abrams.
- McNeil, P., & Miller, S. (Eds.). (2017). *Fashion Writing and Criticism: History, Theory, Practice*. Bloomsbury Visual Arts.
- Hainley, B. (2009). *Fashion and Writing*. Koenig Books.
- Jeshurun, C. (2016). *Fashion Journalism and Fashion Styling: Ethics, Skills and Personal Branding*. Fairchild Books.

Evaluation:

Continuous Internal Evaluation	Marks
Internal Assessment during laboratory work	10 marks
Stage-wise assessment of class work	10 marks
Portfolio & Viva Voce	5 marks
Total	25 marks

Semester-End Practical Examination	
All questions are compulsory with internal choice.	
Question 1 - Unit 1	10 marks
Question 2 - Unit 2	10 marks
Portfolio	03 marks
Viva Voce	02 marks
Total	25 marks

Letter Grades and Grade Points

Semester GPA/ Programme CGPA/ Semester Programme	% of Marks	Alpha-Sign/ Letter Grade Result
9.00-10.00	90.0-100	O (Outstanding)
8.00-<9.00	80.0-<90.0	A+ (Excellent)
7.00-<8.00	70.0-<80.0	A (Very Good)
6.00-<7.00	60.0-<70.0	B+ (Good)
5.50-<6.00	55.0-<60.0	B (Above Average)
5.00-<5.50	50.0-<55.0	C (Average)
4.00-<5.00	40.0-<50.0	P (Pass)
Below 4.00	Below 40.0	F (Fail)
Ab (Absent)	-	Absent

Team for Creation of Syllabus

Name	College Name	Sign
Dr. Anuradha J. Bakshi I/C Principal	College of Home Science Nirmala Niketan	
Dr. Pratima Goyal Head of Department Textile and Fashion Technology	College of Home Science Nirmala Niketan	
Dr. Vishaka Karnad Associate Professor	College of Home Science Nirmala Niketan	
Dr. Ritu Madhan Assistant Professor	College of Home Science Nirmala Niketan	
Dr. Neha Mulchandani Assistant Professor	College of Home Science Nirmala Niketan	
Ms. Vrinda Udiaver Assistant Professor	College of Home Science Nirmala Niketan	
Dr. Anjali Srivastava Assistant Professor	College of Home Science Nirmala Niketan	
Ms. Sanghmitra Navalgund Assistant Professor	College of Home Science Nirmala Niketan	
Ms. Vibhuti Khedekar Assistant Professor	College of Home Science Nirmala Niketan	

Sign of the Head of Institute

Sign of Dean

Name of the Head of the Institute

Name of the Dean

Dr. Anuradha J. Baskhi

Name of the Department:

Name of the Faculty

Textile & Fashion Technology

Justification for M.Sc. (Home Science–Textile & Fashion Technology)

1.	Necessity for starting the Programme:	<p>The syllabus for M.Sc. (Home Science-Textile and Fashion Technology) has been formulated with great care in accordance with the National Education Policy (NEP 2020). The programme aims at imparting technical knowledge and hands-on skills. It enables learners to acquire advanced knowledge and skills that are life-oriented, career-oriented and community- oriented, towards building a profession for self-growth and societal welfare. As the textile sector and fashion industry is continuously evolving and the Indian market has the opportunity expand nationally and globally, this programme will empower students through skill-building and knowledge enhancement so as to meet the country’s and global needs.</p> <p>This course has been planned with a foresight into the increasing demand for practical knowledge and skills required in the textile and fashion industry. It will provide gainful employment opportunities in the ever-expanding technology-driven fashion industry. It is an excellent blend of theory and practical and it has special relevance to Textile, Apparel and Fashion industries with advanced knowledge and experience in entrepreneurship skills, fieldwork, rural camp, internship, industrial visits, computer-aided designing, marketing and skills in textile and fashion technology related areas.</p> <p>The core areas include theoretical knowledge of Fibre Science, Colouration and Finishing, Marketing and Merchandising, Entrepreneurship, Management and Business Administration, Intellectual Property Rights, Garment Production Technology, Global Fashion Trend Forecasting, Technical Textiles.</p> <p>The key areas are framed to train students in practical skills for example Designing, Pattern Making and Garment Construction, Product Development, Home Textile Designing, Draping, Womenswear, Menswear, Accessory Development, World Textile Embroideries and Textile Crafts, Costume Styling, Textile Testing and Quality Assurance, Electives namely Fashion Photography and Videography, Fashion Writing, Surface Embellishments, Fashion Illustration, CAD for Apparel & Home Products.</p> <p>The programme is designed to train students with job</p>
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		<p>relevant skills through laboratory work, on-the-job training and apprenticeship in textile testing laboratories, sustainable start-ups and entrepreneurial ventures with NGOs and artisans. The curriculum is supplemented with extension work and educational trips for experiential learning. The curriculum addresses an understanding of Indian Knowledge System pertaining to traditional culture and heritage and its relation to textiles and costumes, handlooms, handicrafts, artisans and their craftsmanship and fosters appreciation through multicultural sensitivity.</p> <p>Research and statistics is included as an essential component of the course to develop an innovative and scientific temper.</p> <p>In addition to the aforementioned, students are encouraged to undertake industry- and socially-relevant research projects. They are also motivated to participate in research competitions at various levels, publish research findings and engage in networking and collaboration.</p>
2.	Whether the UGC has recommended the Programme:	Yes
3.	Whether all the courses have commenced from the academic year 2023-24	<p>M.Sc. (Home Science) in Textile and Fashion Technology shall commence from the academic Year 2023-24</p> <p>SEM I and SEM II shall commence from the academic Year 2023-24</p> <p>SEM III and SEM IV shall commence from the academic Year 2024-25</p>
4.	The courses stand by the University are self-financed, whether adequate number of eligible permanent faculties available?	<p>The courses are not self-financed and are conducted under the aided section.</p> <p>Adequate number of eligible permanent faculty are not recruited.</p> <p>Currently filled eight sanctioned posts, awaiting NOC for one sanctioned post</p>
5.	The give details regarding the duration of the Course and is it possible to compress the course?	<p>Two Years Full Time (Four Semesters)</p> <p>It is not possible to compress the course</p>
6.	The intake capacity of each course and no. of admissions given in the current academic year:	<p>Intake capacity: 10</p> <p>No. of admissions given in the current academic year:10</p>

7.	<p>Opportunities of Employability / Employment available after undertaking these courses:</p>	<p>The programme has multi-faceted dimensions of design and technical aspects of textile, apparel and fashion products. Students have ample employment and entrepreneurial opportunities. Students on graduation from M.Sc. (Home Science-Textile and Fashion Technology) are well placed in textile manufacturing industries, apparel merchandising units, fashion and export houses, design studios, NGOs, craft centres, as professionals for quality assurance, HR personnel, fashion designers, costume stylists, visual merchandisers, fashion media experts, retail and production managers, computer aided designing professionals, academicians, self-employment and entrepreneurship. In addition, several students' progress to higher specialized education and research avenues. Several students also learn skills to begin their own start-ups or engage in entrepreneurship.</p>
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Sign of the Head of Institute

Sign of Dean

Name of the Head of the Institute

Name of the Dean

Dr. Anuradha J. Baskhi

Name of the Department:

Name of the Faculty

Textile & Fashion Technology