Sant Gadge Baba Amravati University

Faculty: Interdisciplinary Studies

Two Years-Four Semesters Master's Degree Programme

NEPv23 (with **Exit and Entry Option**)

M. Sc Home Science (Textile and Clothing) First Year Semester-I

Part A

Programme: M.Sc. (Home Science) Textile and Clothing

Programme Outcomes (PO):

While undergoing the 2 years Postgraduate programme in M.Sc. Home Science (Textile & Clothing) –, the students will

- 1. Understand current scenario of fashion and apparel design and adapt themselves to the changes in global fashion and commercial market.
- 2. Gain knowledge in the field of Textiles and Clothing
- 3. Apply their professional knowledge and their research ideas for developing innovative fashion trends and creative products.
- 4. Explore the current market trends globally and communicate effectively with the society by designing, marketing and visual presentations.
- 5. Learn advance textile fabrication systems
- 6. Apply domain knowledge in Textiles to create innovative products for specific requirements
- 7. Develop eco-friendly textile products in support of environmental sustainability.
- 8. Apply the specialized knowledge of textile science to find solution for complex scientific problems related to textile and apparel industry.

Programme Specific Outcomes (PSO):

After the successful completion of M.Sc. Home Science (Textile & Clothing) – 2 years Postgraduate programme the students will

- 1. Gain knowledge in selection, identification of fibers, yarn and fabrics for various end uses.
- 2. Gain expertise in areas of fashion and design as to adopt current and future trends
- 3. Excel in the area of computer and soft skills as per industrial needs and start-ups
- 4. Gain hands on experience in selection of dyes, printing, finishing which will help the students to work in wet processing unit or they can start their own Entrepreneur work.
- 5. Ability to test and assess quality parameters of various textile materials as per the global standards at testing laboratories.
- 6. Gain knowledge on CAD application that will help students to design patterns fit for individuals looking into current fashion trends.
- 7. Gain knowledge in research that will help students to create newer designs suitable for present scenario and current market trends.
- 8. Apply knowledge about Eco textiles which will help in selection of right eco fabrics, prints and finishes to save environment
- 9. Grow a scientific & technical acumen for Textiles & Clothing, apparel & cloth designing, tailoring, embroidery & printing, art & design.
- 10. Acquire entrepreneurial skills in the field of textiles, apparel and fashion

Employability potential of the programme:

The textile industry is one of the most successful in India with growth and attention to fashion and fabric. The job of Post Graduate individuals in the textile industry is for fabric construction, dyeing, printing, assessing, recognizing, and selecting fabrics or products from dealers based on suitability and checking for performance under various conditions.

The job profiles offered in the textile industry area are diverse. The textile industry in India is the only industry that provides huge employment for both skilled and unskilled labour. This industry is paramount to strengthen the country's core business. At the same time, it makes a great contribution to employment generation, next only to the Indian retail industry, which accounts for more than 10 per cent of the country's GDP and approximately 8 per cent of the total employment. The textile sector in India employs over 4.5 crore people directly and another 6 crore people in allied sectors, including women and rural population. The Indian textile industry is an important industry locally as well as globally. It has a huge significance in the global context and is considered as second largest industry in the production of fibre, yarn and fabric. India ranks fifth in the production of synthetic fibre.

The programme is beneficial to increase the knowledge base, enhance research aptitude and provide the students with inbuilt confidence in their professional field and cutting edge in the global scenario. It develops the process of critical and analytical thinking and encourages the students to pursue further studies and research in the areas of Textiles and Apparels. The Degree serves as a basis for further higher studies in this field such as Ph.D. and M.Phil. for research work.

The programme prepares students for a wide range of careers in the textile and fashion industry like mills, export houses, buying agencies, design studios, handloom and handicraft cooperatives, NGOs, home and apparel retail brands and online stores as Designers, Merchandisers, Buyers, Managers, Home/Fashion Stylists and Trend Forecasters or work independently as Entrepreneurs.

Employment Areas

- · Colleges & Universities
- · Fashion Designing Institutes
- · Garment Industry
- · Garment Showrooms (Self-Employment)
- · Research Centers
- · Textile Testing Industry
- · Accessory Designer cum Merchandiser
- · Carpet Designer
- · Costume & Garment Designer
- · Digital Machine Designer
- · Digital Machine Operator
- · Lecturer/Professor
- · Merchandiser
- · Marketing & Sales Executive
- · Material Management Executive/Manager
- · Production Manager · Quality Assurance
- · Sales Manager · Textile Designer
- · Fashion Blogger
- · Fashion/Home stylist
- · Entrepreneur
- · Craft sector

Fashion designers often work for textile companies, clothing manufacturers, or wholesalers that sell clothing online or to retail stores. They research fashion trends and come up with new designs. The innate artistic ability can make a good career. Some fashion designers are hired by film and video producers to design costumes. Many use computer-aided design, or CAD, programs to experiment with different colors, lines and shapes before selecting fabrics that complement their design. The design is then used to create a garment that is viewed on a model and modified as needed. Interest in organic, vegan-friendly, sustainable clothing has lit the imagination of eco-conscious garment

technologists. Textile manufacturers are managers who work at a mill that makes yarn, fabric and clothing from raw materials. They supervise workers who spin yarn, weave, knit or dye fabric, for instance. Supervisory skills and an interest in textiles, offers a career in textile manufacturing. Getting hired at a fabric mill or a garment factory introduces students to the production side of the fashion and textile industry. Assembly work entails cutting and sewing pieces of material while operating a sewing machine. Mass production, quality control and order fulfillment can be a good choice. Patternmakers create clothing patterns in specified sizes for ordered garments. They use computers to aid in design and cutting. The idea of working with hands and detail-orientation helps to enjoy this type of career

Sant Gadge Baba Amravati University Faculty: Interdisciplinary Studies

TwoYears-Four Semesters Master's Degree Programme

NEPv23 with Exit and Entry Option

M. Sc. Home Science (Textile and Clothing) First Year Semester-I

Part B

NEPv23 Syllabus Prescribed for First Year PG Programme Programme: M.Sc. (Home Science) Textile and Clothing Semester 1

Code of the	Title of the Course/Subject	(Total Number of
Course/Subject	· ·	Periods)
	Research Methodology and IPR	
TC 101		60

Course Outcomes

After completion of the course students will

- 1. Gain knowledge about research and its types
- 2. Know the fundamental principles and techniques of methodology concerning research
- 3. Apply statistical procedure to analyze data and draw inferences

Unit	Content	Periods
Unit I	Introduction to Research	12
	 Research – meaning and definition, 	
	 Importance of research in the developmental context 	
	Research process	
Unit II	Research Design and Sampling	12
	 Meaning, Basic components of research design and types of research design 	
	 Concept of Population and Sample, Characteristics of good sample 	
	 Types and Methods of drawing Sample Probability sampling and Non probability sampling 	

Unit III	Data Collection	12
	 Concept of data, Types of Data – Qualitative and Quantitative data, Primary and Secondary data 	
	• Levels of data measurements and characteristics of good measurement	
	• Tools of data collection and their uses · Questionnaire · Schedule	
	·Rating scale ·Attitude scale ·Interview – structured and unstructured	
	·Observation – participant and non participant ·Attitude scale	
Unit IV	Descriptive and Inferential Analysis of Data	12
	 Measures of central tendency-mean, median, mode-arithmetic mean and its uses 	
	 Measures of dispersion /variability- range, variance, standard 	
	deviation, standard error, coefficient of variation, Kurtosis, skewness	
	 Large and Small Sample tests and interpretation 	
	Coefficient of correlation, t tests, Z test, F test, ANOVA	
	• Application of non parametric tests ·Chi square test ·Spearman's Rank correlation	
Unit V	Intellectual Property Right	12
	 Concept of IPR 	
	 Kinds of IPR- Patent, Copyright, Trademark, Design, Geographical 	
	indication.	
	• IT Act 2000	
	World Intellectual Property Organisation (WIPO)	

- 1. Devadas.R.,2000.AHandbookonmethodologyofResearch,SriRamakrishnaVidyalaya,Coimbatore,
- 2. Gupta.S.P.,2002.StatisticalMethods, SultanChand&Sons, NewDelhi,
- 3. Srivastava.A.B.LandSharma.K.K.,2003.ElementaryStatisticsinPsychologyandEducation,SterlingPublishers Pvt.ltd.
- 4. Kothari.G.R.,2004ResearchMethodology,MethodsandTechniques,WileyEasternLimited,NewDelhi
- 5. Gosh.B.N.,2006.ScientificMethodsandSocialResearchSterlingPublishersPvt.ltd.,NewDelhi.
- 6. KulbirSingh.S.,2006MethodologyofResearchinEducationSterlingPublishersPvt.Ltd., New Delhi
- 7. Coolican, H. 2014. *Research methods and statistics in psychology* (6th ed.). Psychology Press.
- 8. Kothari, C.R. 2019 Research Methodology: Methods and Techniques. 4th Edition, New Age International Publishers, New Delhi.
- 9. Wilkinson, T.S. and Bhandarkar, P.L. Methodology and Techniques of Social Research, Himalaya Publishing House, Bombay.
- 10. Gosh B.N. 2012. Scientific methods and social research.4th edition, Sterling Publishers Pvt. Ltd. New Delhi.

NEPv23 Syllabus Prescribed for First Year PG Programme Programme: M.Sc. (Home Science) Textile and Clothing Semester 1

Code of the Course/Subject	Title of the Course/Subject	(Total Number ofPeriods)
TC 102	Fashion Concepts and Designing	60

Course Outcomes After completion of the course students will

- 1. Gain knowledge about fashion and it's theories.
- 2. Develop an understanding of structural and decorative design.
- 3. Apply art principles in dress designing.

Unit	Content	Periods
Unit I	 Fashion terminology History of fashion, concepts of fashion, factors influencing fashion Classification of fashion, Fashion cycle, Fashion forecasting Theories of Fashion - Trickle-Down Theory, Bottom Up Theory & Trickle Across Theory 	12
Unit II	 Fashion Development: Timeline of Clothing of Draped Style of Early Civilization till Stitched Style of 21st Century Indian Costume- Vedic And Mughal Designing A Successful Garment: Standards for judging costume - Aesthetic requirements for dress suitability to the individuals, factors in personality - planning a wardrobe, requirements for health and modesty 	12
Unit III	 Consumer Groups- Fashion Leaders, Followers Theme / inspiration board, mood board, colour board, accessory board, Portfolio Fashion Centers And Designers of The World -France, Italy, UK, Japan, New York, India, Spain, Germany, Canada Role of A Designer, Facets of Successful Design Aesthetics, Organization of a Line, Fabricating a Line, Cost of a Garment 	12
Unit IV	 Protocols in designing: Definition, classification of design, Types of design(structural, decorative) Elements used in creating a design-Line, shape, texture, colour, space (2 D), form (3 D), Silhouette Principles of Design- Proportion or scale, Size, Ratio or division, 	12

	Balance, Emphasis, Rhythm, Harmony Colour–its sensitivity and composition in dress	
Unit V	 Fashion sketching- Introduction, Drawing, Aspects of drawing, Tools. Differences between normal and fashion figures. Human proportion- Head, The unit of measurement, average proportion, Method of determining an individual proportion - proportion of the women's figure, the balance like eight head theory. Sketching of different fashion figures, basic garment shape and accessories. 	12

- 1. Arora M. 2007, Universal's Guide to Patents Law (English) 4th Edition Universal Law Publishing House
- 2. Kalyan C. Kankanala, 2012. Indian Patent Law Oxford University Press New Delhi
- 3. Sharon Lee Tete, Inside Fashion Design. Harperand Row Publishers, N. York
- 4. Kathryn Samuel ,Life Styles, Fashion Styles, Orbis London
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- 6. Carr H.and Pomery J.(1992) Fashion Design and Product Development. Blackwell Scientific Publications, London, Edinburgh
- 7. Complete guide to sewing. Reader's Digest Association, New York
- 8. Creative Clothing Construction, McGraw Hill, 1973
- 9. Tate, S.L. (1987). The complete book of fashion illustration. New York: Harper & Row.
- 10. Toledo, R. (1996). Style dictionary. New York: Abbeville.
- 11. J.M. (1986). Fashion design and illustration I- basic guidelines. London: Century Hutchison
- 12. Carr H., Latham B. (1994), The Technology of Clothing Manufacture, 2nd edition, Blackwell Sc.
- 13. Fringes G. S. (1994), Fashion from Concept to Consumer, 6th edition, Prentice Hall, New Jersey.

Programme: M.Sc. (Home Science) Textile and Clothing

Semester 1

Code of the Course/Subject	Title of the Course/Subject	(Total Number of Periods)
TC 103	Textile Chemistry	60

Course Outcomes After completion of the course students will

- 1. Describe the morphological and chemical structure of natural fibres
- 2. Understand the manufacturing processes of manmade fibres
- 3. Gain knowledge about dyeing &printing of textiles

Unit	Content	Periods
Unit I	Concepts of: Fibre, Yarn, Fabric, Staple fibre, Filament,	12
	Regenerated fibre	
	Classification of fibres. · Characteristics of fibre forming	
	polymer.	
	 Need and Importance of study of Textile Chemistry 	
	 Vegetable Fibres · Cotton Fibre: Cultivation and harvesting, 	
	Development of fibre in seed, Morphological structure,	
	Properties and applications of Cotton fibre.	
	Bast Fibres: Retting and extraction process of Bast fibres,	
	Properties and applications of linen fibres.	
Unit II	Animal Fibres	12
	Wool: Types and grading of wool, Morphological	
	structure, Properties and applications.	
	Silk: Types of silk, Production of silk, Morphological	
T T.	structure, Properties and applications	1.2
Unit III	Manmade Fibres	12
	Polyamide Fibres (Nylon 6 & Nylon 66): Manufacturing process Proporties and applications	
	process, Properties and applications.	
	Polyester (Polyethylene Terephthalate): Manufacturing process Proporties and applications	
	process, Properties and applications.Polyacrylonitrile Fibre: Manufacturing process,	
	Properties and applications.	
	 Regenerated Fibres Viscose Rayon: Manufacturing 	
	process, Properties and applications	
Unit III	Dyeing: Introduction to dyeing, Principles of dyeing,	12
0 1110 111	Preparation of fabric for dyeing and printing .	
	Methods of dyeing (dope, fiber, yarn, fabric and garment) ·	
	Dyes and pigments: classification of dyes and pigments	
	based onapplication and chemical structures	
	Color Index and color matching ·	
	Study of auxiliaries used for dyeing	
Unit V	Printing: · Introduction to Printing	12
	Styles of printing , Methods of printing ·	
	Study of auxiliaries used for dyeing and printing ·	
	 Novel methods of printing: Digital, flexography, inkjet, 	
	blotch, watermark, roller, photo printing, marble, etc	
	Specialty printing: Rubber, khadi, etc	

- 1. ACIMIT Italy, Reference Book of Textile Technology Man-made Fibres (2011).
- 2. J. Gordon Cook, Handbook of Textile Fibres. Volume 1 Natural Fibres, Woodhead Publishing Series in Textiles ISBN:978-1-85573-484-5 (1984).
- 3. J. Gordon Cook, Handbook of Textile Fibres. Volume 2 Man-Made Fibres, Woodhead Publishing Series in Textiles, ISBN: 978-1-85573-485-2 (1984).
- 4. Murthy, H. V. Sreenivasa, Introduction to Textile Fibres, Woodhead Publishing India in Textiles, ISBN:978-93-85059-57-5 (1984).
- 5. S.P. Mishra, A Textbook of Fibre Science and Technology, New Age International (P.) Limited, ISBN: 9788122412505 (2000).
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- 7. V. R. Gowariker, Polymer Science, New Age International Publishers; Third edition, ISBN: 9387788644, (1 January 2019).
- $8. \quad Cook, J. Gordon, Hand Book of Textile Fibres, Merrow Publishing Co.\\$
- 9. Trotman, E.R. (1975), Dyeing and Chemical Technology of Textile Fibres, Charles Griffino Co. Ltd. London.

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Programme: M.Sc. (Home Science) Textile and Clothing

Semester 1

Code of the Course/Subject

Title of the Course/Subject

(Total Number of Periods)

TC 104

Advanced Textile Design

45

Course Outcomes

After completion of the course students will

- 1. Illustrate various woven, knitted, non-woven and other fabric construction methods
- 2. Develop skills in textile designing
- 3. Recognize the role of Functional textiles

Unit	Content	Periods
Unit I	Textile Designing: Meaning, importance Role of textile designer	9
	 Elements of Woven Design 	
	 Derivatives of plain, twill and satin weaves. 	
	 Fabric weaves-Jacquard, swivel, lappet, figure and dobby weave. 	
	 Methods of weave representation, repeat of weave drafts, rowing 	
	In weaving plan, lifting plan, peg plan, weave draft	
Unit II	Principles of knitting technology	9
	 Definition of knitting ,basic structural terms 	
	 Basic mechanical principle sof knitting technology 	
	 Elements of knitted loop structure, four primary base structure 	
	(plain,rib, interlock, purl.)	
	 Weft and Warp Knitting – related terms and definition, warp and 	
	weft knitting machines.	
Unit III	Other methods of fabric formation	9
	 Knotting, tufting and multi components 	
	 Narrow width fabrics – labels, laces etc. 	
	 Advances in fabric construction 	
	 Non – wovens and multi components, types, properties and uses 	
	including felts	
Unit IV	Process of Designing	9
	 Motif development- Geometrical, simplified, naturalized ,stylised, 	
	abstract and ornamental	
	 Enlargement and reduction, Lay out, Repeat 	
	 Colour consideration–colour harmonies and colour ways. 	
	 Sources of inspiration for basic sketching and painting, 	
	understanding the tools and equipment and their appropriate use for	
	sketching, painting and achieving textural effects.	
Unit V	Functional textiles	9
	• Introduction, definition, scope, growth & development – Home	
	textiles, Pack textiles, Agro textiles, Geo textiles, Filtration textiles,	
	Medical textiles, Defense textiles,, survival textiles, Textiles for	
	Automobiles & sports &, Textiles in aircrafts & marine application	
	 Current trends in textile designing 	

- 1. PrakashK.(1992), Enpression Ethnic Indian Textile Designs, Deluxe Packaging.
- 2. PrakashK.(1989), Impressions, DeluxePackaging.
- 3. Prayag, R.S., Technologyand Textile Printing Noyes Data Corporation.
- $4.\ Shenai, V.A. (1977), Technology of Textile Printing-Technology of Textile Processing Vol.-IV, Sevak Publication.$
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- 6. Corbman, B. P. (1983) Fibre to Fabric step by step weaving (6th Ed.) New York: McGraw Hill.
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- 8. Sengupta, R. (1982). Weaving calculations. Bombay: D.B. TaraporewalaSons.
- 9. Hollen, Norma. (1988). Textiles. (6th Ed) New York: Macmillan publishing company.
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- 11. Nisbet, H. (1978). Grammar of textile design. Bombay: Taraporewala Sons.

Programme: M.Sc. (Home Science) Textile and Clothing

Semester 1

Code of the Course/Subject	Title of the Course/Subject	(Total Number ofPeriods)
TC 105 A	Historic Costumes	45

Course Outcomes

After completion of the course students will

- 1. Get acquainted with the historic costumes of different centuries.
- 2. Develop sensitivity and understanding towards historic silhouettes and designs.
- 3. Value the rich heritage of costumes of the world

Unit	Content	Periods
Unit I	 Clothing - origins and functions Costume in ancient civilization. Emphasize on fabric, garment features, use of colour, decoration and accessories: Indian and Egyptian. 	9
Unit II	Ancient costumes • Greek Roman	9
Unit III	Medieval costume of court, upper class, and peasant during12 th to 17 th Century • French • European • English	9
Unit IV	Costumes of China and Japan	9
Unit V	Growth and development of Indian Costume from ancient to20 th century	9

- 1. J Underson Black, Muidge Garland, A History of Fashion, Orbits Publishing limited, London.
- 2. Boucher Francois, A History of Costume in the West, Thames and Hudson.
- 3. R. Turner Wilcox, The Dictionary of costume, B.T. Bats Ford Ltd.

Programme: M.Sc. (Home Science) Textile and Clothing

Semester 1

Code of the Course/Subject (Total Number of Periods)
Course/Subject

Textile Industry in India

45

Course Outcomes

After completion of the course students will

TC 105 B

- 1. Get acquainted with the multifaceted profile of the textile industry of India
- 2. Appraise the vast textile sector in India and world
- 3. Understand the different policies and different organizations, which are working on textile industry in India

Unit	Content	Periods
Unit I	 History of Indian textile Industry Importance of textile and clothing industry in the Indian economy in terms of domestic consumption, employment and per capita income, gross national product and international trade. 	9
Unit II	 National textile policy -change in focus over the year in terms of objectives function, ability, regulatory mechanisms Foreign trade policy - The mechanism of MFA - History and current status. Export Import policy 	9
Unit III	 Textile management and organizational structure- organized and decentralized structure, handloom and power loom sector. Meaning and Role of - TUFS,SITP, NTC, EPCG, ATC,CCI, NHDC, NIFT, etc 	9
Unit IV	 Production, consumption, employment problems, prospects and SWOT analysis of Cotton, Wool, Jute, man-made fiber and filament yarn industry, Handloom industry, Readymade garment industry and Technical textiles. 	
Unit V	 Research and development- problems and prospects of Textile Industry Schemes launched by Government of India in Textile sector foremployment generation 	9

Course Material/Learning Resources

References:

- 1. Mishra and Puri, Indian Economy-Himalaya Pub. House.
- 2. National textile policy 1986 2001
- 3. Economic Surveys, Govt. of India.
- 4. Industry published journals, news letters from SASMIRA, WWEPC.
- 5. Journals, Clothes line, Business India, Business today.

$\label{eq:continuous} \textbf{Programme: MSc (Home Science) Textile and Clothing}$

Semester 1

Code of the Title of the Course/Subject (No. of

Course/Subject (Laboratory/Practical/practicum/h Periods/Week)

ands-on/Activity)

TC 106 Fashion Concepts and Designing 2/w

Course Outcomes

By the end of the Lab/Practical Course, students will

- 1. Sketch basic figures and croquis
- 2. Develop fashion portfolio

1	Basic figure drawing for women Sketching of Croqui – mechanical, fleshed out
3	Sketching of various poses
4	Rendering different fabrics textures & prints
5	Illustration- Garment and garment details - Accessories
6	Development of fashion portfolio-customer profile, theme board, mood board, colour board, fabric board, flat presentation, story boardand accessory board
7	Designing an apparel, grooming and styling of any one individual for an occasion considering necessary requirements (according to body type)

$\label{eq:continuous_programme: M.Sc. (Home Science) Textile and Clothing} Programme: M.Sc. (Home Science) Textile and Clothing$

Semester 1

Code of the Title of the Course/Subject (No. of

Course/Subject (Laboratory/Practical/practicum/h Periods/Week)

ands-on/Activity)

TC 107 Textile Chemistry 2/w

Course Outcomes

By the end of the Lab/Practical Course, students will

- 1. Prepare the fabric for dyeing and printing
- 2. Formulate suitable dyeing and printing techniques on different type of fabric

1	Preparation of fabric for dyeing and printing (desizing, scouring and
	bleaching)
2	Dyeing of yarns and fabric.
	· Direct, reactive, vat, sulphur, azo.
	· Acid, chrome, metal complex
	· Basic, disperse
3	Preparation of natural dye shade card
4	Printing-Screen, block, resist, discharge, stencil and flock, etc
5	Apply suitable dyeing and printing techniques on different type of fabrics

Programme: M.Sc. (Home Science) Textile and Clothing

Semester 1

Code of the Title of the Course/Subject (No. of

Course/Subject (Laboratory/Practical/practicum/h Periods/Week)

ands-on/Activity)

TC 108 Advanced Textile Design 2/W

Course Outcomes

By the end of the Lab/Practical Course, students will

- 1. Create different patterns for textile designing
- 2. Analyze different woven Samples
- 3. Weave fabric samples on Table Loom

1	Sourcing and identification of different Samples - Knitted, Woven, Non- Woven Samples and other Construction methods
2	Creating motif design and patterns for different placements and usages.
3	Create different type of surface patterns on fabric (for scarf, stole, dress material, bedcover, curtain, etc) with Layout based on various Repeat
4	Analysis of Woven Samples for Design, Draft And Peg Plan and other particulars (3 Samples Under Each Type of Weave)
5	Practical Warping and Weaving of Samples on Table Loom

Programme: M.Sc. (Home Science) Textile and Clothing

Semester 1

Code of the Title of the Course/Subject (No. of

Course/Subject (Laboratory/Practical/practicum/h Periods/Week)

ands-on/Activity)

TC 109 A Historic Costumes 2/w

Course Outcomes

By the end of the Lab/Practical Course, students will

- 1. Develop portfolio of costumes of various countries
- 2. Appraise draped styles for fashion designing

1	Portfolio development of costumes of different countries of
	different periods. As mentioned in theory units
2	Visit to a museum to study costumes

Programme: M.Sc. (Home Science) Textile and Clothing Semester 1

Code of the Title of the Course/Subject (No. of

Course/Subject (Laboratory/Practical/practicum/h Periods/Week)

ands-on/Activity)

TC 109 B Textile Industry in India 2/w

Course Outcomes

By the end of the Lab/Practical Course, students will

- 1. Understand the management and organizational structure of textile sectors
- 2. Experience the requisites of setting up a textile unit

* List of Practical/Laboratory Experiments/Activities etc.

Visit to various sectors of Textile industry to understand the management and organizational structure- organized and decentralized structure –at least 3 of the following-

Handloom sector, Powerloom sector, Textile handicrafts, Fabric manufacturing, Garment manufacturing, spinning, weaving, etc

SantGadge Baba Amravati University

Faculty: Interdisciplinary Studies

TwoYears-Four Semesters Master's Degree Programme

NEPv23 with **Exitand Entry Option**

M. Sc. Home Science (Textile and Clothing) First Year Semester-II

NEPv23 Syllabus Prescribed for First Year PG Programme

$\label{eq:continuous_programme: M.Sc. (Home Science) Textile and Clothing} % \[\mathbf{P}_{\mathbf{G}} = \mathbf{P}$

Semester 1I

Code of the Course/Subject	Title of the Course/Subject	(Total Number of Periods)
TC 201	Textile Testing and Quality Control	60

Course Outcomes

After completion of the course students will

- 1. Understand the techniques and principles of testing of textiles and garments
- 2. Acquire the different methods of testing quality assurance followed at various stages from fiber to garment
- 3. Appraise and defend quality of products

Unit	Content	Periods
Unit I	Introduction to Textile Testing	12
	Meaning, definition, need and importance.	
	 Textile testing of fibres and yarns, Quantitative and Qualitative Types and size/number 	
	• Fibres – length, fineness	
	Yarn – Strength, evenness, openness, load elongationand crimp	
Unit II	Fabric dimensions and properties (woven, knitted and non – woven)	12
	Testing of fabrics : Length, width, fabric count, weight and thickness,	
	Air and water permeability, Shrinkage, Wrinkle resistance and crease	
	recovery, Abrasion resistance and pilling resistance, Fabric	
	stiffness and drapability, Flammability, Tensile strength	
Unit III	Testing of garments: Colorfastness check (Rub test), Symmetry check,	12
	Size fitting test, Adhesive check (logos, printings, markings fastness),	
	Fabric weight test (for knitted garments), Fasteners fatigue and zip quality	
	test, Waterproof test, Seam slippage test (for woven garments),	
	Care labeling, Burn test (for 100% cotton garment),	
	Seam strength, Puckering	

Unit IV	Type of fabric defects (woven & knits) -grading of fabric and its usage	12
	 Quality standards as applicable to various types of textiles (Garments, 	
	yardage, knits, woven, carpet, processing and dyeing)	
	 Quality audits: ISO 9001 structure, Quality audits, ISO registration, 	
	Statistical sampling and application of AQL	
Unit V	Standardization and quality control of textile products	12
	 Concept, need and importance 	
	 National and International organizations for standardization 	
	 Concept of Statistical Quality Control –Sampling, Test methods used 	
	• Tolerance limits, CV%, Advances in textile testing and quality	
	Assurance	

- 1.Back C. Robert (1986), Psychological factors at work, Recognition and Control, ILO, Geneva, Occupational Saftey and Health Series No.56.
- 2. Morgan C.T., King R.A., Robinson N.M. (1979), Introduction to Psychology, Tata McGraw Hill Publishing Co., New Delhi.
- 3. Kolf D. (1984), Experimental Learning Experiences as the source of learning and development.
- 4. Chauhan S.S. (1984), Advaned Educational Psychology, Vikas, NewDelhi.
- 5. Gagne R.M. (1978), The conditions of learning, Molt and Rinehart, New York.
- 6.Bigge M.L. (1982), Learning Theories for Teachers, Harper & Row, New York
- 7. Shenai V.A. (1984) Technology of Textile Processing, Vol. IX, SevakPublication
- 8.Booth J.E. Principles of Textile Testing: Newness Butter Worth, London
- 9. Clarke, W. (1977). Introduction to textile printing. London: Newnes Butterworth
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Semester 1I

Code of the	Title of the Course/Subject	(Total Number of	
Course/Subject		Periods)	
TC 202	Apparel Designing	60	

Course Outcomes After completion of the course students will

- 1. Identify material sourcing, presenting themselves for various occasion.
- 1. Develop and understand of the elements and principles of design
- 2. Understand fashion and apparel design as an art and science of visualizing, creating and developing fashion

Unit	Content	Periods
Unit I	 Dress design- Standards for judging costume - Aesthetic requirements for dress suitability to the individuals, factors in personality - planning a wardrobe, requirements for health and modesty. 	12
	 Factors affecting selection of clothing - choice of clothing, accessories to express individuality and distinction in appearance. Applications of basic and principles in achieving pleasing personality 	
Unit II	• Introduction to different type of fabrics · Fabric types and their buying criteria for woven, non woven, knitted and underlying fabrics	12
	 Application of design concepts: Trimming and decoration 	
	 Garment designing according to age, climate, occasion, occupation, figure type 	
Unit III	Apparel Design Development:	12
	 Pattern making through flat pattern (Drafting ,Draping) Pattern making terms Anthropometric measurements, standard measurementchartand figure types Understanding the commercial paper pattern Layouts for cutting Basic cutting procedure (markings, tracing, pinning and cutting) 	

Unit IV	Study of garment components:	12
	 Seams and Seam finishes, necklines, collars, sleeves, plackets, fasteners, pockets, hemlines, yokes, trimmings, etc. 	
	Disposal of fullness- Darts, tucks, pleats and gathers	
Unit V	Evaluating the quality of apparel: · Fiber content, shaping devices	12
	Standards for evaluating the various components: pockets, fasteners, plackets, necklines, collars, sleeves, hem treatments & decorative details	

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- 4. KathrynSamuel,LifeStyles,FashionStyles.OrbisLondon 3.
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- 7. Completeguidetosewing.Reader'sDigestAssociation,NewYork
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- 10. Toledo, R. (1996). Style dictionary. New York: Abbeville.
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Semester 1I

Code of the Course/Subject	Title of the Course/Subject	(Total Number of Periods)
TC 203	Social and Psychological Aspects of Clothing	45

Course Outcomes After completion of the course students will

- 1. Understand the psychological effect of clothing on the individual in social situations
- 2. Acquire knowledge regarding the factors that affect making clothes for individual
- 3. Co relate the psychology of human behavior and clothing

Unit	Content	Periods
Unit I	Origins of clothing	9
	Clothes and first impression	
	Clothing symbolism	
	Variations in costumes due to	
	Material aspects and climate-	
	Religious influence on costume	
	Influence of events of the world	
Unit II	Effect of clothing on	9
	Physical comfort	
	Mood and behaviour	
	 Personality and self concept 	
	Clothing and the wearer	
	Psychological impact of colour	
	Figure proportion and illusion	
	Age of the wearer	
	Body Type	
Unit III	Clothing and Society	9
	Religion and culture	
	Occupation	

	 Ceremonies and occasion Class distinction Clothes, role and status Social impact of clothes- fashion, fads, role of uniforms, national costumes, occupational clothing, etc 	
Unit IV	 Curating a well Planned Wardrobe Clothing budget and Wardrobe planning Clothing and family budget Wardrobe planning for – professionals, non-professionals, Trousseau 	9
Unit V	Socialization and development of the self • Social norms • Attitudes and value formation • Individuality and conformity • Person and group identification	9

Course Material/Learning Resources

References:

- 1. Back C. Robert (1986), Psychological factors at work, Recognition and Control, ILO, Geneva, Occupational Saftey and Health Series No.56.
- 2. Back C. Rober (1986), Apply Psychology understanding people, Prentice Hall Englewoods Cliffs, New Jersey.
- 3. Morgan C.T., King R.A., Robinson N.M. (1979), Introduction toPsychology, Tata McGraw Hill Publishing Co., New Delhi.
- 4. Kolf D. (1984), Experimental Learning Experiences as the source of learning and development.
- 5. Chauhan S.S. (1984), Advaned Educational Psychology, Vikas, NewDelhi.
- 6. Gagne R.M. (1978), The conditions of learning, Molt and Rinehart, New York.
- 7. Bigge M.L. (1982), Learning Theories for Teachers, Harper & Row, New York.

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Semester 1I

Code of the	Title of the Course/Subject	(Total Number of	
Course/Subject		Periods)	
TC 204 A	Historic Textiles	45	

Course Outcomes

After completion of the course students will

- 1. Evaluate the historical significance of textiles which influenced the cultures and civilizations.
- 2. Identify the ancient and traditional textiles.
- 3. Appraise the role of Indian textiles vis-à-vis developments in the world textiles.

Unit	Content	Periods
Unit I	Importance of textiles in historical perspective	9
	• Early fibers and their use in textile production in ancient, medieval	
	and renaissance period	
	 Beginnings of the textile industry in ancient civilizations - 	
	Mesopotamia,	
	Egypt, Persia, Greece, Rome, China, India	
Unit II	Study of masterpieces of world textiles - Structural Designs (With respect	9
	to history, construction techniques, styles colors, motifs and centers of	
	production)	
	• Brocades (China, India, Persia, Byzantium, Spain, Italy and France)	
	 Tapestries (Greece, Coptic, Europe, Peru) 	
	 Carpets and Floor coverings 	
	Shawls , Laces	
Unit III	Study of masterpieces of world textiles- Applied Designs (With respect to	9
	history, construction techniques, styles colors, motifs and centers of	
	production)	
	 Resist dyed fabrics (India, Indonesia and Japan) 	
	 Painted and Printed textiles (India ,France and England) 	
Unit IV	Study of embroidered textiles-with respect to history, construction	9
	techniques, styles colors, motifs and centers of production (China, Persia,	
	England, India)	
Unit V	Indian handloom industry	9
	Historical significance, Importance, Construction techniques, Styles, Colours	
	and Motifs, Centers of production	

- 1. Annemarie Seiler-Baldinger (1979) Classification of Textile Techniques Ahmedabad, India, Calico Museum of India
- 2. Gillow John and Sentance Bryan (1999) World Textiles, London
- 3. Thames and Hudson Ginsburg, Madeleine (Ed), (1993), Illustrated History of Textiles, London, Studio Edition.
- 4. Harris, Jennifer (Ed), (1993) Textiles 5000 Years, London, British Museum Press.
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- 6. Gillow John zand Sentence Brgan (1999) World Textiles, Thames & Hudson, London.
- 7. PaineShaila(1990)EmbroideredTextiles, Traditions, Thames&Hudson, London.
- 8. Boucher F. (1987) 2000 years of fashion: The history of costume and personal Adornment, New York: Harry and Abrams Inc. publishers.
- 9. Dar, S. N. (1969) Costumes of India and Pakistan, D. B. Taraporewala Sons & Co, Bombay
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- 11. Anand M.R., "Textiles & Embroideries of India "Marg Publication Bombay, 1965.
- 12. Chattopadhyay K, "Indian Embroidery", Wiley Eastern Ltd., New Delhi, 1977. Lynton Linda, "The Sari", Thames & Hadson, 1995.
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Semester 1I

Code of the	Title of the Course/Subject	(Total Number of
Course/Subject		Periods)
TC 204 B	Knitting Technology	45

Course Outcomes

After completion of the course students will

- 1. Know about Indian knitting Industry
- 2. Understand fundamentals of knitting
- 3. Be familiar with types of knitting process and various knitting structures.

Unit	Content	Periods
Unit I	Introduction to knitting	
	 Definition, basic structural terms, and principles of knitting technology. 	
	 Difference between Knits and woven. 	
	 Development of knitting from hand knitting to machine knitting. 	
Unit II	Basic mechanical principles of knitting technology	9
	 Elements of knitted loop structure 	
	 Four primary base structures (Plain, Rib, interlock, Purl) 	
	Warp and Weft Knitting	
	 Terms and definitions. 	
	Composition of weft and Warp Knitting	
	 Classification of warp Knitting machines and Weft Knitting machines 	
	 Comparison of Warp & Weft Knitting 	
	 Classification of Warp Knitting & West Knitting Machines 	
Unit III	Weft Knitting - Basic structures, stitches, designing of weft-	9
	Knitstructures, needle and yarn selection for weft knitting	
	 Warp Knitting-Development of Warp knitting machines, Basic warp knit structures and their representation, patterning mechanism for warp knit designs 	

Unit IV	Tricot and Raschel Knits - Principles, characteristics, properties, Machines	9
	and production method	
	• Flat Knitting and circular knitting: Machine parts, elements, characteristics	
Unit V	 Knitted garments :cutting, stitching & quality control of knitted garments Indian Knitting industry - Past and present. 	9

- 1. David J.Spencer- Knitting Technology, Pergeman Press, U.K.
- 2. Prof. D.B. Algaonkar Knitting Technology, University PublishingCo-operation, Bombay.
- 3. Dr. Samuel Roz Flat Knitting Technology, Germany,
- 4. Terry Brockenbary Knitted clothing Technology Blackwell Science

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Semester 1I

Code of the Title of the Course/Subject (No. of

Course/Subject (Laboratory/Practical/practicum/h Periods/Week)

ands-on/Activity)

TC 205 Textile Testing and Quality 2/w

Control

Course Outcomes

By the end of the Lab/Practical Course, students will

- 1. Apply the aspects of quality control in textiles
- 2. Analyze the textile products for quality assurance
- 3. Test the textiles for colour fastness

1	Testing of textiles using appropriate standardized procedures Fibers – Length, diameter and fineness
2	Yarn – Count, heaviness, twist, crimp, strength
3	Fabric – count, thickness, stiffness, shrinkage, crease recovery, bursting strength, drape, tensile strength
4	Colour fastness tests
5	Visit to Textile Testing laboratories

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Semester 1I

Code of the **Title of the Course/Subject** (No. of Course/Subject

(Laboratory/Practical/practicum/h Periods/Week)

ands-on/Activity)

TC 206 Apparel Designing 2/w

Course Outcomes

By the end of the Lab/Practical Course, students will

- 1. Render theme based garments
- 2. Apply construction details I garment making

1	Development of basic block using standard measurement Adapting the basic block for garment making
2	Developing a line of theme based garments - Sketching, Designing, Sizing
3	Applying various Seams and Seam finishes, necklines, collars, sleeves, plackets, fasteners, pockets, hemlines, yokes, trimmings, disposal of fullness- Darts, tucks, pleats and gathers on the above line of garments
4	Evaluation of the designed garments

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Semester 1I

Code of the Title of the Course/Subject (No. of

(Laboratory/Practical/practicum/h Periods/Week) Course/Subject

ands-on/Activity)

Social and Psychological Aspects

2/w

of Clothing

Course Outcomes

TC 207

By the end of the Lab/Practical Course, students will

- 1. Assess the relevance of dressing and psychology
- 2. Prepare a clothing budget.

1	Examine and study how clothes can impact self-confidence, mood and attitude. Application of psychological test for assessment
2	Explore some psychological effects that colour, pattern and accessories can have on an individual's mood.
3	Prepare a clothing budget for different income level according to number of family members.

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Semester 1I

Code of the Title of the Course/Subject (No. of

Course/Subject (Laboratory/Practical/practicum/h Periods/Week)

ands-on/Activity)

TC 208 A Historic Textiles 2/w

Course Outcomes

By the end of the Lab/Practical Course, students will

- 1. Orient the rich heritage of world textiles
- 2. Develop the process of product development based on traditional textile

1	Visits to various places like production centers, art galleries/ museums
	to study the traditional textiles
2	Preparation of Portfolio of masterpieces of world textiles-
	Structural Designs as mentioned in unit II
3	Preparation of portfolio of masterpieces of world textiles-
	Applied Designs as mentioned in unit III
4	Preparation of Portfolio of embroidered textiles as mentioned in unit IV
5	Preparation of Portfolio of Indian handloom textiles
6	Development of contemporary commercial products/ services with
	using traditional textiles

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Semester 1I

Code of the Title of the Course/Subject (No. of

Course/Subject (Laboratory/Practical/practicum/h Periods/Week)

ands-on/Activity)

TC 208 B Knitting Technology 2/w

Course Outcomes

By the end of the Lab/Practical Course, students will

- 1. Develop basic knitted samples
- 2. Get knowledge of the knitting industry

1	Sourcing and identification Of Different Knitted Samples
2	Constructing Fabrics Using:
	Knitting (5 Samples - Manual and or Machine)
	Crochet (5 Samples)
3	Analysis and testing of knitted samples
4	Yarn calculation for weft and warp knits.
5	Visits to different knitting units.