

**Syllabus developed**  
**According to NATIONAL EDUCATION POLICY 2020**  
**C.B.C.S.**  
**for**  
**M.Sc. (Home Science)**  
**MASTER OF SCIENCE [HOME SC. (GENERAL)]**  
**M.Sc. Clothing & Textile Specialization**

**Semester- VII**

<b>Theory</b>	<b>Major</b>	<b>Subject Name</b>	<b>Credit (26)</b>
Theory	1	Research Methodology Part I	4
Theory	2	Basic of Food Science	4
Theory	3	Extension Education in Home Science	4
Theory	4	Child Psychology	4
Practical	5	Extension Education in Home Science	4
Elective Minor		Nutrition for health and fitness I	2
		or	
		Guidance or Counselling I	2
		or	
		Communication & Extension Education in Home Science	2
Research	1	Research/ Project	4

**Semester- VIII**

<b>Theory</b>	<b>Major</b>	<b>Subject Name</b>	<b>Credit (26)</b>
Theory	1	Research Methodology Part II	4
Theory	2	Fashion dynamic	4
Theory	3	Ergonomics	4
Theory	4	Clinical Nutrition & Dietitics	4
Practical		Clinical Nutrition & Dietitics	4
Elective Minor		Nutrition for health and fitness II	2
		Or	
		Evidence or Counselling I	2
		Or	
		Communication & Extension Education in Home Science	2
Research	1	Research/ Project	4

**Semester- IX**

<b>Theory</b>	<b>Major</b>	<b>Subject Name</b>	<b>Credit (24)</b>
Theory	1	Textile Science	4
Theory	2	Dyeing (Finishing)	4
Theory	3	Fashion Retailing & Merchandising	4
Theory	4	Textile Industry in India	4
Practical		Dyeing (Finishing)	4
Research		Research/ Project	4

**Semester- X**

<b>Theory</b>	<b>Major</b>	<b>Subject Name</b>	<b>Credit (24)</b>
Theory	1	Advance Textiles	4
Theory	2	Historic Textile	4
Theory	3	Garment Production Technique	4
Theory	4	Textile Printing	4
Practical	1	Advance Textile	4
	1	Project	4

**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Home Science))**  
**Semester : VII**  
**Paper : First**  
**Subject- Research Methodology (Part 1)**

<b>Major Course</b> <b>Credit - 4</b>
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**Objectives**

1. To have a basic knowledge about Research and its Methodologies
2. To identify and define appropriate Research problems

**Unit I Introduction to Research**

- a. Meaning, definition, nature and area of Research in Home Science.
- b. Objectives, scope of Research and types of Research.
- c. Significance and limitation of Research.

**Unit II Selection of Research Problem**

- a. Definition and identification of Research problem.
- b. Selection of research problem.
- c. Importance of problem formulation.
- d. Source and types of research problem.

**Unit III Methods and tools of Data collection**

- a. Meaning and definition of data.
- b. Sources and types of data.
- c. Importance and limitation of data.
- d. Methods and tools of data collection.

**Unit IV Sampling Design**

- a. Meaning and definition of sampling.
- b. Merit and demerit of sampling.
- c. Characteristics of good sample design.
- d. Classification of sampling techniques.

**References:**

1. C.R. Kothari, Research methodology, methods and techniques Wiley eastern Ltd.- new
2. C.B. Gupta V. Gupta An introduction to statistical methods Vikas Publishing House Pvt. Ltd.
3. D.N Elhance, fundamentals of statistics



**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Home Science))**  
**Semester : VII**  
**Paper : Second**  
**Subject : Basic of Food Science**

<b>Major Course</b> <b>Credit - 4</b>
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**Objectives:**

1. Obtain knowledge of different food groups, their composition and role in diet.
2. To gain knowledge of different plant and animal derived foods and their nutritive values and properties.

**Unit I Introduction and concept of food science**

- a. Basic concept of food, nutrition nutrients and therapeutic diet.
- b. Carbohydrates- Introduction and functions of carbohydrate.
- c. Classification of carbohydrate.
- d. Occurrence and Biochemical importance of carbohydrate.
- e. Sources daily requirement and effect of too high and low CHO on health.

**Unit II Lipids**

- a. Introduction and general functions of Lipids.
- b. Classification of Lipids.
- c. Essential and Non-Essential fatty acids and their importance.
- d. Sources, daily requirement and nutritional significance of PUFA, MUFA, SFA and W-3 fatty acids.

**Unit III Proteins and amino acids**

- a. Introduction, origin and functions of proteins.
- b. Meaning of amino acids and their classification.
- c. Essential and non-essential amino acids.
- d. Factors affecting protein bio availability including anti-nutritional factors.
- e. Source acids daily requirement and assessment of protein quality (BV, PER, NPU).

#### **Unit IV      Vitamins and minerals**

- a.    Define vitamins and minerals.
- b.    History of vitamins and minerals.
- c.    Types and uses of vitamins and minerals.

#### **References:**

1.    Ahury, G.S.: Indian Costumes, Popular Prakashan, Bombay.
2.    Bhushan Brij, J.: Costumes and Textiles of India, D.B. Taraporewala & Co. Bmobay
3.    Moti Chandra: Costumes, Textiles, Cosmetics and Chiffons in Ancient and Medieval India,.
4.    Orient Publisher, New Delhi, 1973.
5.    Akazi Roahan; Ancient Indian Costumes. Art Heritage, New Delhi.
6.    Mary Shawn Rayan: The study in Human Behaviour.
7.    Flugel, J.G: Psychology of Clothes.
8.    Horn, H.J.: Second Skin.

**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc.) General (Home Science)**  
**Semester : VII**  
**Paper : Third**

**Major Course**

**Credit - 4**

**Subject : Extension Education in Home Science**

**Objectives:**

1. To develop an understanding regarding various types of media and their role in Home Science Extension
2. To develop skill in producing and using selected media in Extension work

**Unit I Introduction to Extension Education in Home Science**

- a. Objectives of extension education.
- b. Principles of extension education.
- c. Functions of extension worker.
- d. Qualities of extension worker.
- e. Role of extension worker.
- f. Role of Home Science extension education in national development.

**Unit II Community Development**

- a. Origin, Organization and function of community development.
- b. Growth and Development of Panchayati Raj.
- c. Rural Institutions of India. "Village school, Mahila mandal, Youth clubs

**Unit III Programme planning**

- a. Programme Planning: Principles and importance in extension.
- b. Evaluation of Programme.

**Unit IV Home Science for Rural Development**

- a. Role of Home Science in solving issues of illiteracy, poverty and health.
- b. Home Science Extension workers for Rural Development and Characteristics of extension workers.

**References:**

1. Ray, G.L., Extension Communication and management, 1999, Nays Prakashan, Calcutta.
2. Berlo, D.K.: The Process of Communicating –An Introduction to Theory and Practical, 1960, New York, Henry Holt and Company.
3. Chopra, K., Kaukodi, G.K., & Murty, M.N.: Participatory Development, 1990. Sagar Publication.

**Practical:**

1. Production of selected media in Home Science Extension and Pre testing of the selected media.
2. Use of Selected media in the field.
3. Developing skill in any of the folk media.
4. News and report writing of programme for farm/slum women.



**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Home Science))**  
**Semester : VII**  
**Paper : Fourth**  
**Subject- Child Psychology**

<b>Major Course</b> <b>Credit - 4</b>
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**Objectives:**

1. To enable the students to understand about child psychology
2. Help the students in understanding of developmental aspects of child at different stages

**Unit I : 1. Introduction to Psychology**

- a. Historical Perspective.
  - b. Emergence of Child Psychology as a Scientific discipline.
  - c. Techniques of Child Study, Longitudinal, Cross sectional, experimental, Case Study, Interview and Observation.
- 2. Genetic Biological Basis of Development**
- a. Influence an Physical, Physiological and intellectual characteristics.
  - b. Effect of premature and birth weight on the different facets of child's Personality.

**Unit II Psychological Development**

- a. **Infancy**- Importance of early social experience, mothering attachment (Bowl by), maternal deprivation, role of care giver and consequence of the interaction with care giver.
- b. **Pre-school age**-Effect identification and sex typing on the child's behavior, role of family with special reference to rewards and punishments.
- c. **School age**-Important influence on development of child.

**Unit III Development of Child**

- a. Language Development.
- b. Cognitive Development.
- c. Emotional Development.
- d. Personality Development.



## **Unit IV      Child Development perspective**

- a.    Focus on all round Development.
- b.    Individual needs/group needs.
- c.    Neglected areas of Child Development creativity, Language and concept formation.
- d.    Assessment and monitoring in preschools: programmers children.

### **References:**

1.    L. Alan Sroufe, Robert, G. Cooper: Child Development- Its Nature and Course, Ist Ed. 1988
2.    Boston, Allyn & Bacon: Child Development, 1989
3.    Peter, K. Smith & Helen Kowie : Understanding Children's Development, Smikow 30077, New York, Basil Block, 1988 Rober
4.    S. Feldman: Understanding Psychology, McGraw Hill Book co., New York, 1987

**Proposed Syllabus  
for  
Faculty : Home Science  
(M.Sc. General (Home Science))  
Semester : VII**

<b>Minor Course</b> <b>Credit - 2</b>
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**Subject- COMMUNICATION AND EXTENSION IN HOME SCIENCE (Part I)**

**Objectives:**

1. To develop an understanding regarding the Extension process
2. To develop an understanding regarding various types of media and their role in Home Science Extension

**Unit I Introduction to Extension Education in Home Science**

- a. Objectives of extension education.
- b. Principles of extension education.
- c. Functions of extension worker.
- d. Qualities of extension worker.
- e. Role of extension worker.
- f. Role of Home Science extension education in national development.

**Unit II Extension Teaching Methods**

- a. Methods of Extension Teaching.
- b. Audio Aids.
- c. Visual Aids.
- d. Audio-Visual Aids.
- e. Adoption and innovation of diffusion.

**References:**

1. Ray, G.L., Extension Communication and management, 1999, Nays Prakashan, Calcutta.
2. Tiwari, LP : Communication, Technology and Development, 1987.
3. Indian Ministry of Information & Broad Casting : Mass Media in India, 1985.
4. Dhama, O.P. & Bhatnagar, O.P. : Education and Communication for Development, 1987.

**Proposed Syllabus  
for  
Faculty : Home Science  
(M.Sc. General)  
Semester : VII**

**Subject : Nutrition for Health and Physical Fitness (Part 1)**

<b>Minor Course Credit - 2</b>
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**Objective :**

1. To Introduce the fundamental concept of physical education, Health and Fitness
2. To provide a general understanding on nutrition, first aid and stress management
3. To familiarize the students regarding yoga and other activities for developing fitness

**Unit I      Concept of Physical education and health**

- a. Definition, Aims and Objectives of physical education.
- b. Modern concept of health, physical fitness and wellness.
- c. Components and types of physical fitness.

**Unit II      Yoga and Stress Management**

- a. Asanas and its effects
  - Padmasana
  - Halasana
  - Bhujangasana
  - Shavasana
  - Vajrasana
  - Trikonasana
  - Padahasthasana
- b. Postural deformities- corrective measures.
- c. Stress management and relaxation techniques.

**REFERENCES**

1. Harold M Barrow "Man and Movement: Principles of Physical Education" published in Great Britain by Henry Kimpton Publishers, London.
2. Jesse Peoring Williams "The Principles of Physical Education" Published by College Book House, Shivaji Road, Meerut.
3. William D McArdle, Frank I Katch and Vitor I Katch, Essential of Exercise Physiology, Second edition, New York: Lipincoff Williams and wilkins, 2000
4. Arthar C. Guyton, Physiology of Human Body, Philadelphia: Saunders Company, 1972.
5. Melwin H. Williams. Nutrition for Health Fitness and sport. McGraw Hill Company, Newyork: 1995



**Proposed Syllabus  
for  
Faculty : Home Science  
M.Sc. General (Human Development)  
Semester : VII  
Subject : Guidance and Counselling (Part - 2)**

<b>Minor Course Credit - 2</b>
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**Objectives**

1. To understand the principles and strategies for guidance and counseling across the life span
2. To learn the concept of guidance counseling and therapy, its process, qualities and responsibilities of counselors

**Unit I      Types of Counseling - Psychological Counseling, Psychotherapeutic, Clinical, Marriage, Vocational, Students & Placement.**

**Unit II      Techniques of Counseling - Interview Techniques, Group Counseling Techniques, Diagnostic and Clinical Techniques.**

**REFERENCES**

1. Ram Nath Sharma, Rachana Sharma, (2018) Guidance & Counseling in India, Atlartic publishers and Dist.
2. Asha K Kinra (2008), Guidance & counseling, Dorling Kindersley (India) Pvt. Ltd., Jai Narain Vyas University, Jodhpur

**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Home Science))**

**Semester : VIII**

**Paper : First**

**Subject- Research Methodology (Part II<sup>nd</sup>)**

<b>Major Course</b>
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<b>Credit - 4</b>
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**Objectives:**

1. To develop an ability in students to design a research report and assist the students to collect and analyze data
2. To enable the students to generalise the data and justify the result with the help of statistical analysis

**Unit I Hypothesis**

- a. Meaning and definition of hypothesis.
- b. Characteristics or requirements of good hypothesis.
- c. Kinds of hypothesis and sources of hypothesis.
- d. Methods of testing the significance of hypothesis.

**Unit 2 Research Report**

- a. Meaning of Research report.
- b. Types of Research report.
- c. Presentation or layout of research report.
- d. Characteristics of a good research report.

**Unit 3 Analysis and Presentation of Data**

- a. Meaning and importance of content analysis.
- b. Classification and tabulation of data.
- c. Types of data Presentation.
- d. Advantages or disadvantages of data presentation.

**Unit 4 Measure of Central Tendency**

- a. Meaning and importance of Measures of Central Tendency.
- b. Measures of dispersion- Range, Mean deviation, SD, Quartile deviation, C.V., skewness and kurtosis.

**Reference:**

1. C.R. Kothari, Research methodology, methods and techniques Wiley eastern Ltd.- new.
2. C.B. Gupta V. Gupta An introduction to statistical methods Vikas Publishing House Pvt. Ltd.
3. Kulbir Singh, Sidhu Methodology of Research in education, sterling Publisher Pvt. Ltd. New Delhi.
4. Arun Kumar, Research Methodology, Anard Publications, Meerut.



**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Home Science))**  
**Semester : VIII**  
**Paper- Second**  
**Subject- Fashion Dynamic**

**Major Course**

**Credit - 4**

**Objectives:**

1. To understand the dynamics of fashion and role CAD & CAM in fashion industry
2. To learn about the designers of international and national fame and their contribution to the fashion of today

**UNIT 1 Fashion Concepts**

- a. Fashion terminology, principles of fashion.
- b. Theories of fashion adoption and fashion cycle.

**Unit II History of Fashion**

- a. Factors determining fashion trends.
- b. International and Indian fashion designers.
- c. Fashion careers, creating fashion display, futuristic trends in fashion their anticipation and implementation.

**Unit III Role of CAD and CAM in Fashion Industry**

- a. Importance and role of CAD-CAM in fashion industry.
- b. Working tool : creating and editor points, notches lines and pieces.
- c. Different types of CAD systems available in the market today.

**Unit IV Sociological Aspects of Clothes in Terms of Fashion**

- a. Role of uniforms national costumes and occupational clothes.
- b. Social importance of clothes.
- c. Factor influencing choice of clothes, physical, aesthetic, economic and social.
- d. Psychological effects of colour in clothes.

**References:**

1. Choi, K. H. (2019). Digitalized dynamic fashion illustration, using motion graphics. Proceedings of international conference on fashion communication: Between tradition and future digital developments, pp. 9-20. Cham: Springer.
2. Makryniotis, T. (2018). Fashion and costume design in electronic entertainment - Bridging the gap between character and fashion design. Fashion Practice, 10(1), 99-118.
3. Worbin, L. (2010). Designing dynamic textile patterns. Borås: University of Borås. Retrieved from <https://www.diva-portal.org/smash/get/diva2:876942/FULLTEXT01.pdf>



**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Home Science))**  
**Semester : VIII**  
**Paper : Third**  
**Subject- Ergonomics**

<b>Major Course</b> <b>Credit - 4</b>
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**Objectives:**

1. To make an understanding and application of ergonomics in home and allied sectors
2. To develop the ability in students to make their career in various field

**Unit I      Ergonomics**

- a. Scope of ergonomics in Home and other occupations.
- b. Nature of work in household and other occupation.
- c. Interdisciplinary and applied nature of ergonomics as a field of study.
- d. Man Machine Environment system.

**Unit II      Ergonomics in work place (Elbow room)**

- a. Anatomical Dimensions and its relation to space needs.
- b. Postures at work and their effect on health.
- c. Anthropometric Measurements for different postures, standing and sitting.
- d. Work space and storage needs.
- e. Functional design of work places equipments and tools.

**Unit III      Enviromental Factors**

- a. Noise- Guidelines on noise, noise reduction at source, noise reduction through work plase, design and work organization, hearing conservation.
- b. Light- Guidelines on light imtensity, guidlines on brightness differences improved lighting.

**Unit IV      Work Organization Jobs and Tasks**

- a. Definition and importance of work.
- b. Improving Quality of life through work.

**References:**

1. Deaeon, R.E. and Fire Baugh, F.M.: Resource management, principles and applications, Allyn and Bacon, 1981.
2. Dewitt, R.J. and Singh: Indian Economics, Premier Publishing Co. Bombay
3. Sundaram, K.P.M. and Versha, N.G.: Principles of Economics, Agra.
4. Chakraborty, S.K.: Mannagement by objectives- integral approach, MacMillan Co. 1980.
5. Drucke, P.: Managment: Task , responsibilities and practices, Allied publisher.

**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Home Science))**  
**Semester : VIII**  
**Paper : Fourth**

<b>Major Course</b> <b>Credit - 4</b>
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**Subject- Clinical Nutrition and Dietetics**

**Objectives:**

1. To understand the effected various disease on nutritional status, nutritional and dietary requirement
2. To be able to recommend and provides appropriate nutrition care for prevention and treatment of various disorders

**Unit I                      Introduction to Clinical Nutrition**

- a. Definition and introduction to Clinical Nutrition.
- b. Nutrition care process (NCP).
- c. Nutritional Assessment by Direct, Indirect and dietary methods.
- d. Nutrition Intervention and evaluation.
- e. Patient care and counselling.
- f. Role of dietitian in Hospital.

**Unit II                      Nutrition in metabolic diseases**

- a. Introduction, Prevalence, Etiology and classification of diabetes mellitus, Hypertension.
- b. Metabolic aberration, Symptoms, diagnosis and complication.
- c. Dietary management, different therapies for management, education and prevention.



### **Unit III Metabolic effect of Cancer and Renal diseases**

- a. Cancer- Cancer cachexia, Anorexia, nutrition effects of cancer therapy, surgery, radiation therapy, chemotherapy, immune therapy, nutrients and their relationship with cancer.
- b. Renal diseases- Acute and chronic renal failure and dietary management in End stage renal failure and dialysis.

### **Unit IV Nutrition care in Cardiovascular disease and weight management**

1. **Cardiovascular Disease:** Introduction, types and nutritional management in cardiovascular diseases.
2. **Nutrition and weight management :** Introduction to obesity, over weight and under weight.
3. Eating disorders and nutritional management in obesity, over weight and under weight.

#### **Reference:**

1. Anita, F.P.: Clinical Dietetics and Nutrition, Oxford Univ. Press 1989.
2. Shills, M.E. and Young, V.R.: Modern Nutrition in Health and Disease.
3. K.M. Varghese Company, Bombay, 7th ed. 1988.
4. Joyar M.C and Ketteroon: Nutrition and Disease.
5. Comparative Aspects of Nutrition and Metabolic Diseases- CRC Press.

#### **Practical:**

1. Assessment of Nutritional Status by different methods-direct, indirect and dietary methods.
2. Planning, calculation and preparation whole day diet in metabolic diseases- diabetes mellitus and Hypertension.
3. Planning, calculation and preparation whole day diet for-
  - a. Cardiovascular disease.
  - b. Weight management.
  - c. Cancer and Renal disease.
4. Planning, calculation, preparation, services, evaluation and dietary counseling for the therapeutic diets, covered in theory the practical includes block placement of the students in the real work situations of hospitals: Medical ward, Dietary department for 6 to 8 wks



**Proposed Syllabus  
for  
Faculty : Home Science  
(M.Sc. General (Home Science))  
Semester : VIII**

<b>Minor Course</b> <b>Credit - 2</b>
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**Subject- COMMUNICATION AND EXTENSION IN HOME SCIENCE  
(Part II)**

**Unit I      Introduction to Communication**

- a. Origin, Concept, definition, nature of Communication.
- b. Models of communication.
- c. Levels of communication & Channel of Communication.
- d. Effective communication- Frame of reference, perception, fidelity, communication gap, time lag, empathy, homophily, heterophily.
- e. Functions of communication & Problems of Communication.

**Unit II      Developmental Communication & Appropriate Technology for Women**

- a. Understanding the role of traditional and modern media in developmental communication.
- b. Participatory approach in developmental communication ( PRA & RRA).
- c. Transfer of technology and factors affecting TOT.
- d. Role and status of women in Rural development.
- e. Need of Appropriate technology for women.

**References:**

- 1. Benjamin James : Communication Concepts and Contexts, 1986.
- 2. Berlo, D.K. : The Process of Communication - An Introduction to Theory and Practical, 1960, New York, Henry Holt and Company.
- 3. Chopra, K., Kaukodi, G.K., & Murty, M.N. : Participatory Development, 1990. Sagar Publication.
- 4. Dhama, O.P. & Bhatnagar, O.P. : Communication for Development, 1991.
- 5. Kumar Keval J. : Mass Communication in India : A Comprehensive and Critical Look at the Mass Media in India, 1987.

**Proposed Syllabus  
for  
Faculty : Home Science  
(M.Sc. General)  
Semester : VIII**

**Subject : Nutrition for Health and Physical Fitness (Part - 2)**

<b>Minor Course Credit - 2</b>
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**Objective :-** This course will prepare students to :

1. Understand the components of health and fitness and the role of nutrition in these.
2. Make nutritional, elietary and physical activity recommendation fitnessand well-being.
3. Develop ability to evaluate fitness and well being

**Unit I      Role of Macronutrients**

- a. **Energy** - Release of energy from macronutrients, Energy metabolism during excersise and Energy requirements for physically active persons.
- b. **Carbohydrate and Proteins** - Effect of exercise on carbohydrate metabolism, pre, during and post CHO intake in diet and amino acid metabolism during exercise, effect of protein on exercise performance, ingestion of protein before and after exercise.
- c. **Lipids** - Fat metabolism during exercise with special reference to the type and intensity of exercise. Nutritional strategies to enhance oxidation of fat during exercise.

**Unit II      Effect of exercise on fluid and electrolyte balance:**

- a. Fluid imbolances- dehydration and over hydration and importance of sports drinks.
- b. Micronutrients and exercise.
- c. Nutritional problems in physically active person.

**REFERENCES**

1. Harold M Barrow "Man and Movement: Principles of Physical Education" published in Great Britain by Henry Kimpton Publishers, London.
2. Jesse Peoring Williams "The Principles of Physical Education" Published by College Book House, Shivaji Road, Meerut.
3. William D McArdle, Frank I Katch and Vitor I Katch, Essential of Exercise Physiology, Second edition, New York: Lipincoff Welliams and wilkins, 2000
4. Arthar C. Guyton, Physiology of Human Body, Philadelphia: Saunders Company, 1972.
5. Melwin H. Williams. Nutrition for Health Fitness and sport. McGraw Hill Company, Newyork: 1995



**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Clothing & Textile))**  
**Semester : IX**  
**Paper First**  
**Subject- Textile Science**

<b>Major Course</b>
<b>Credit - 4</b>

**Objectives**

1. To acquire knowledge of different Textile fibres and their properties
2. To develop an ability to test fabric and their properties
3. To understand the recent development in fibres

**Unit I : Recent development in fiber**

- a. Acrylic and Modacrylic-fibres.
- b. Olefin fibers.
- c. Elastometric fiber, Rubber, Spandex.
- d. Glass.
- e. Metallic.
- f. Mixture and blended fabrics, Reason for mixing and blending.
- g. Qualitative and quantitative analysis of blend and pure fabrics.

**Unit 2: Fibre and Yarn Testing**

- a. Fibre Testing- Length, Linear Density, Fibre Fineness.
- b. Yarn Testing- Yarn Number, Count, Single or Lea strength, Twist, Evenness, Crimp properties and measurement of Crimp percentage.

**Unit 3 : Fabric Testing**

- a. Fabric constructing analysis- weave, ends, picks, count, weight, crimp, thickness determination etc.
- b. Porosity, air permeability and thermal conductivity of fabric.
- c. Dimensional stability of fabric-Shrinkage, laundering shrinkage, Thermal shrinkage and heat setting.

**Unit 4 : Mechanical Properties of Fabric**

- a. Breaking, Bursting and Tearing strength of fabrics, their relation of fabric and yarn construction parameters.
- b. Crease recovery.
- c. Bending stiffness and recovery.
- d. Drapability of fabric.
- e. Feel texture and handle of fabrics.
- f. Serviceability of fabrics Service wear and abrasion method of assessment.

**REFERENCES**

1. Booth, J.E.: Principles of Textile Testing Skinkle: Textile Testing  
Garner, W.: Textile Laboratory Manual.
2. Garner & Hamby; Hand book of Textile Testing and Quality Control  
Carter, H.F.: Testing Yarns and Fabrics.
3. Marsh, J.T.: Introduction to Textile Finishing.
4. Trotman, E.R.: Bleaching Dyeing and Chemical Technology of fibres  
Shenai: Technology of Textile Processing Peters: Textile Chemistry  
Wilhams, B.I.: Practical Textile Chemistry.



**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Clothing & Textile))**  
**Semester : IX**  
**Paper Second**  
**Subject- Dyeing and Finishing**

<b>Major Course</b> <b>Credit - 4</b>
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**Objectives**

1. To understand the theory of dyeing in relation to various classes of dyes and its application
2. To study the chemicals used in textiles processing and study the recent development in various finishing processes

**Unit I: Classification of Dyeing**

- a. History of dyestuff concept of colours and its relation to light classification and types of dye & coloring matter.
- b. Preparatory processes: Designing, Scouring, Bleaching and Mercerization .
- c. Methods of application and suitability of various dyes to different fibres and their blend.

**Unit II Brief Introduction about Chemical Constitution of Dyes**

- a. Colour index, chemical constitution of dyes.

**Unit III Dyeing Machines**

- a. Dyeing Machine for fibre, yarn and fabric and industrial dyeing practices.
- b. Dyeing auxiliaries and their uses regarding dyeing soaping and washing.

**Unit IV Finishing Technology**

- a. Resin finishes- application and mechanism.
- b. Organdie finish.
- c. Permanent set (Durable press) finish.
- c. Stone-wash finish.
- d. Soil and oil release finish.
- e. Recent advancement in finishing.

**References:**

1. Broughton Kate, "Textile dyeing: The step by step guide" Rockport, 2001.
2. BHeyood, Derek, "Textile finishing : Society of dyers and colorists" 2004.
3. Shenai VA :Technology of textile finishing" Sevak publication; Mumbai 1995.
4. Vankatraman K "Chemistry of synthetic dyes" vol III, Academic press, Newyork, 1991.

**Practical:**

1. Preparatory processes-Designing, Scouring and Bleaching
2. Yarn and fabric dyeing-Direct, reactive (hot and cold)
3. Synthetic fabric dyeing with disperse dye.
4. Colorfastness testing- light, washing and rubbing.

**Proposed Syllabus  
for  
Faculty : Home Science  
(M.Sc. General (Clothing & Textile)  
Semester : IX  
Paper Third**

<b>Major Course</b> <b>Credit - 4</b>
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**Subject- Fashion Retailing and Merchandising**

**Objectives:**

1. To develop understanding of Retailing and Merchandising
2. To impart knowledge regarding promotion and selling

**Unit 1 : The Concept of Retailing**

- a. Definition and role of retailing in Merchandising.
- b. Retail Environment types of retail store.
- c. Challenges facing Indian retail industry.

**Unit 2 : Distribution of Textile**

- a. Wholesalers, Retailers and Merchandisers.
- b. Functions and methods of selling.
- c. Role of IT in Textile Industry.

**Unit 3 : Promotion of Textile Merchandise**

- a. Role and Methods of Promotion.
- b. Advertising and Sales promotion techniques.
- c. Brand, Standards, Labeling and display of Merchandise.

**Unit 4 : Technical Textiles**

- a. Importance and uses of Technical Textiles.
- b. Advantages and Disadvantages of Technical Textiles.
- c. Seminar and Report Presentation.

**REFERENCES**

1. Macneal James U.: Dimensions of Consumer Behavior.
2. The Indian textile journal, all India textile directory textile worlds (journal).
3. Mathur, Navin: Advertising and consumer reaction in India.



**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Clothing & Textile))**  
**Semester : IX**  
**Paper-Fourth**  
**Subject- Textile Industry in India**

<b>Major Course</b>
<b>Credit - 4</b>

**Objectives:**

1. To acquaint students with multifaceted textile industry of India, the economic regime and the policy regulations within which textile industry is operated

**Unit 1 : Importance of Textile Industry in the Indian Economy**

- a. History, Growth and developments.
- b. Problems and Prospect.
- c. Textile policy.

**Unit 2 : Textile Management Structure**

- a. Organized and decentralized sector.
- b. Market structure.

**Unit 3 : Export procedure in India**

- a. Export incentives.
- b. Problems in exporting textiles.
- c. Trends in Indian Exports.

**Unit 4 : Costing and Quality Control**

- a. Methods of costing check Indian fanshion industry.
- b. Elements of cost for a fabric.
- c. Growth of consumerism and problems of consumer.
- d. Consumer protection & ISO certification (9000:2000).

**REFERENCES**

1. Aiya, H.R.: Economics of Textile and Industry in India.
2. Kali Triodkar: Export Management.
3. Dudy, V.D.: Management (if textile industries).
4. Macneal James U.: Dimensions of Consumer Behavior.
5. Tata Services Ltd.: Statistical outline of India.
6. The Indian textile journal, all India textile directory textile worlds (journal).
7. Mathur, Navin: Advertising and consumer reaction in India.

**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Clothing & Textile))**  
**Semester : X**  
**Paper- First**  
**Subject- Advance Textiles**

<b>Major Course</b> <b>Credit - 4</b>
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**Objectives**

1. To sensitize students about various techniques of pattern making & fitting
2. To develop an ability to analyse fabric weaving
3. To develop competency in entrepreneurship skills in textiles

**Unit I : Pattern making Technique**

- a. Flat pattern, draping, drafting, application, principle and limitations.
- b. Commercial pattern: Categories of pattern, pattern making, pattern envelope, pattern guide sheet.

**Unit II Fitting and Handling of Special Fabric**

- a. Principle of fitting, factors to be considered while fitting, common fitting problems, remedying fitting defects, special consideration in designing and layout of the garment (Print, Stripes, Checks, Lines etc.)  
Fabric selection studying fabric texture, hand body print;.
- b. Handling of special fabric while cutting and stitching (lace, velvet chiffon) Supporting fabrics lining, interlining, interfacing, underlining.

**Unit III Fabric classification and analysis of fabric for its construction weaves**

- a. Basic and decorative weaves, plain, twill and satin derivatives, dobby and jacquard, shedding and weaving pile.
- b. Principle of color and design in weaving, preparation of pattern for dobby and jacquard looms, warp and weft pile weaving.
- c. New development in woven fabrics- New loom and loom development.
- d. Textile design through weaving.

**Unit IV Entrepreneurship development in textiles**

- a. Definition and characteristics of an entrepreneur.
- b. Entrepreneurship development and employment promotion.
- c. Agencies for development of entrepreneurship.
- d. Establishing an enterprise and Problems.
- e. Information Sources/Schemes of assistance.



**References:**

1. Natalic Bray: Dress Designing
2. Mccalls: Sewing in Colour
3. Readers Digest:: Complete Guide to Sewing
4. Hepumerth: Dress Designing and Selection,
5. Singe sewing Book
6. Martin , G.M.: The Art of Costume and Personal Dress Designing
7. Brockman Helen: The Theory of Fashion Designing
8. Hillbenae, M.S. & Mansfield, C.A.: Dress Designing Draping and Flat Pattern
9. Aswani, K.T.: Fancy Weaving Mechanism
10. William Watson: Advanced Textile Desingn Hand Book on Computer
11. Aided Textile Designing, Published by WRA
12. Armstrong Helen joseph, pattern making for fashion design, 3<sup>rd</sup> edition, Prentice hall, 1999

**Practical:**

1. Flat pattern design- Moving, dividing and combining dart by pivot slash and spread method.
2. Converting dart into seam line adding fullness in garment by gathers and pleats.
3. Adaptation to various designs using 'foundation pattern' Designing apparel and construction with selected dress design:-
  - a. Draping on dress form and style reading.
  - b. Preliminary draping exercise, front and back bodice.
  - c. Basic front shaping by manipulation of darts-shifting positions, multiple darts and gathers.
4. Preparation of commercial pattern envelope.



**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Clothing & Textile))**  
**Semester : X**  
**Paper : Second**  
**Subject- Historic Textile**

**Major Course**

**Credit - 4**

**Objectives**

1. To impart knowledge to students on historic textiles and clothing
2. To enhance the knowledge of students about psychological as well aspects of clothing
3. To create awareness of traditional costumes of India

**Unit – I : Origin and Selection of Clothing**

- a. Theories of Clothing: Theory of Modesty, immodesty, protection, adornment, combined need and other theories.
- b. Role of clothing in psychological and personality development of human beings, self concept,.
- c. Psychological effect of clothing on children.
- d. Scope and type of designs.

**Unit – II Indian costumes: Historic approach from ancient period to 20<sup>th</sup> Centur**

- a. Dress in Harappa and Mohan Jodaro.
- b. Dress of Aryans.
- c. Dress of 600 BC -320 BC (Buddhist, Jains).
- d. Islamic influence.
- e. British period.

**Unit-III Study of regional costumes of India (Men/Women)**

- a. Punjab, Himachal, Kashmir, U.P, M.P., Bengal, Tamilnadu, Rajasthan, Gujarat, and Maharashtra.

**Unit – IV Study of Indian sarees of different types**

- a. Different types of handlooms sarees.
- b. Wardrobe planning for different stages in family cycle.
- c. History of Carpets. Rugs and Durries.

**References:**

1. Ahury, G.S.: Indian Costumes, Popular Prakashan, Bombay
  2. Bhushan Brij, J.: Costumes and Textiles of India, D.B. Taraporewala & Co. Bmobay.
  3. Moti Chandra: Costumes, Textiles, Cosmetics and Chiffons in Ancient and Medieval India,.
  4. Orient Publisher, New Delhi, 1973.
  5. Akazi Roahan; Ancient Indian Costumes. Art Heritage, New Delhi.
  6. Mary Shawn Rayan: The study in Human Behaviour.
  7. Flugel, J.G: Psychology of Clothes.
- Horn, H.J.: Second Skin

**Proposed Syllabus  
for  
Faculty : Home Science  
(M.Sc. General (Clothing & Textile)  
Semester : X  
Paper- Third**

<b>Major Course</b> <b>Credit - 4</b>
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**Subject- Garment Production Techniques**

**Objectives:**

1. To inculcate various garment construction technique among students
2. To understand the functions of sewing machine
3. To learn about the care and maintenance of sewing machine

**Unit1 Spreading and Marking Technique**

- a. Spreading methods, equipments and tools, types of spread.
- b. Marking method, types of marker and symbols.

**Unit 2: Cutting Technique**

- a. Definition, cutting equipment and tool: straight knife cutting machine, Rotary cutting machine, Band knife cutting machine, Die cutter, cutting drills and computerized cutting machine.
- b. Working environment and safety measures.

**Unit 3: Sewing Technique**

- a. Basic sewing machine and tools.
- b. Common problems in sewing machine and maintenance.

**Unit 4: Pressing Technique**

- a. Purpose of pressing, pressing equipment and methods of pressing.
- b. Garment folding and packing.

**References:**

1. Chuter .A. J" introduction to clothing production management; Blackwell publishing, 2<sup>nd</sup> edition, 1995
2. Claric Shaffer, "sewing for the apparel industry" prentice-hall, 1st edition, 2001
3. Haupld carr & Barbara latham, "the technology of clothing manufacturer" Blackwell publishing, 4<sup>th</sup> edition, 2008
4. Thomas anna gawb, the art of sewing" USB publishers distributors Ltd. 1994



**Proposed Syllabus**  
**for**  
**Faculty : Home Science**  
**(M.Sc. General (Clothing & Textile))**  
**Semester : X**  
**Paper : Fourth**  
**Subject : Textile Printing**

**Major Course**

**Credit - 4**

**Objectives:**

1. To impart the knowledge about peroration of fabric for printing
2. To inculcate awareness of the different methods of printing and appreciate the technical advantages of each

**UNIT 1 Introduction to Printing**

- a. Historical development of printing methods.
- b. Methods of printing- Block, Stencil, Screen, Roller, Rotary screens used at industrial level.

**Unit II Principles of Printing**

- a. Various methods and machinery used for printing.
- b. Thickening agents and auxiliaries for the printing paste and their suitable to various classes of fibers.

**Unit III Styles of Printing**

- a. Direct style resist, or discharge style and raised style.
- b. Styles and methods of printing.

**Unit IV Special printing procedure and finishing**

- a. Role Poly chromatic dyeing transfers, printing Carpet printing, flock printing.
- b. Social importance of clothes.
- c. Recent advancement in printing.

**References:**

1. Screen shot not received.
2. V.A. Shenai. Technology fo Textile Processing. Vol. IV. Sevak Publication.
3. R.S. Prayag. Technology of Textile Printing. Noyes Data Corporation.
4. Joyee Story. The Thames & Husdson Manual of Textile Printing. Thames & Husdson.
5. Vilens G. Textile Science. CBS.