M.Sc.(Home Science)
Semester-I Examination - Winter-2010,
Semester-II Examination - Summer-2011

Prospectus No. 2011195

संत गांडगे बाबा अमरावती विद्यापीठ SANT GADGE BABA AMRAVATI UNIVERSITY

गृहविज्ञान विद्याशाखा (FACULTY OF HOME SCIENCE)

PROSPECTUS

OF

M.Sc. (Home Science) (Textile and Clothing)
Semester-I, Winter-2010
Semester-II, Summer-2011



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

(Semester-I & II)

(Prospectus No.2011195)

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SANT GADGE BABA AMRAVATI UNIVERSITY

SPECIAL NOTE FOR INFORMATION OF THE STUDENTS

- (1) Notwithstanding anything to the contrary, it is notified for general information and guidance of all concerned that a person, who has passed the qualifying examination and is eligible for admission only to the corresponding next higher examination as an ex-student or an external candidate, shall be examined in accordance with the syllabus of such next higher examination in force at the time of such examination in such subjects, papers or combination of papers in which students from University Departments or Colleges are to be examined by the University.
- (2) Be it known to all the students desirous to take examination/s for which this prospectus has been prescribed should, if found necessary for any other information regarding examinations etc. refer the University OrdinanceBooklet the various conditions/provisions pertaining to examinations as prescribed in the following Ordinances-

Ordinance No. 1 : Enrolment of Students.
Ordinance No. 2 : Admission of Students
Ordinance No. 4 : National Cadet Corps

Ordinance No. 6 : Examination in General (relevant extracts)

Ordinance No. 18/2001: An Ordinance to provide grace marks for passing in a Head of

passing and Inprovement of Division (Higher Class) and getting Distinction in the subject and condonation of defficiency of marks in a subject in all the faculties prescribed by the Statute NO.18,

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Ordinance No.9 : Conduct of Examinations

(Relevant extracts)

Ordinance No.10 : Providing for Exemptions and Compartments

Ordinance No. 19 : Admission Candidates to Degrees

Ordinance No.109 : Recording of a change of name of a University Student in the

records of the University

Ordinance No.6 of 2008: For improvement of Division/Grade.

Ordinance No.19/2001: An Ordinance for Central Assessment Programme, Scheme of

Evaluation and Moderation of answerbooks and preparation of results of the examinations, conducted by the University, Ordinance

2001.

Dineshkumar Joshi

Registrar

Sant Gadge Baba Amravati University

PATTERN OF QUESTION PAPER ON THE UNIT SYSTEM

The pattern of question paper as per unit system will be boradly based on the following pattern.

- (1) Syllabus has been divided into units equal to the number of question to be answered in the paper. On each unit there will be a question either a long answer type or a short answer type.
- (2) Number of question will be in accordance with the unit prescribed in the syllabi for each paper i.e. there will be one question on each unit.
- (3) For every question long answer type or short answer type there will be an alternative choice from the same unit. However, there will be no internal choice in a question.
- (4) Division of marks between long answer and short answer type question will be in the ratio of 40 and 60.
- (5) Each short answer type question shall Contain 4 to 8 short sub question with no internal choice.

Syllabus Prescribed for M.Sc. Home Science (Textile and Clothing) Semester-I

Subject Code 114AT47 Advanced Textile Design

Theory: 4 periods/wk (Credits 4) Theory Mks.: 60 Practical: 3 periods/wk (Credits 1.5) Th. Int. Mks.: 40

Practical Mks.:20 Pra.Int.Mks.: 05 Total Mks.: 125

Objectives:-

- To develop awareness and appreciation of art & aesthetics in textiles.
- To impart creative and technical skills for designing textiles with special emphasis on structural design.

Theory

Unit-1: Elements of Wave Design: Construction of elementary weaves, development of weaves from elementary basis. Derivatives of plain, twill and satin weaves. Dobby and Jacquard shedding and weaving terrypile.

Unit-2:

- Introducing to knitting. Definition of knitting, basic structural terms and principles of knitting
- Basic mechanical principles of 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-3:

• Nonwoven textiles, fabric obtained by different manufacturing techniques.

Unit-4 : Design Analysis :

Principles and elements of design, 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-5 : Process of Designing :

- Motif development Geometrical, simplified, naturalized, stylised, abstract and ornamental, big and small motifs, enlargement and reduction.
- Colour consideration colour harmonies and colour ways.

Practicals :-

- (1) Survey Fabrics available in local market.
- (2) Creating motif designs and patterns for different placements and usages.
- (3) Fabric Analysis Design repeat, draft, peg plan and other details.
- (4) Weaving on simple leam Plain, rib, matt, and twill weave.

References:-

- (1) Prakash K. (1992), Enpression Ethnic Indian Textile Designs, Deluxe Packaging.
- (2) Prakash K. (1989), Impressions, Deluxe Packaging.
- (3) Prayag, R.S., Technology and Textile Printing Noyes Data Corporation.
- (4) Shenai, V.A. (1977), Technology of Textile Printing Technology of Textile Processing Vol.-IV, Sevak Publication.

Subject Code 114TC48 **Textile Chemistry**

Theory: 3 Periods/wk (Credits 3) Theory Paper: 45 Practical: 3 Hrs/wk (Credits 1.5) Th. Int. Asst. Mks.: 30 Practical Marks – 35

Pra.Int.Ass.Mks. - 15 Total Mks.: 125

Learning Objectives :- To acquaint the students about the polymers of which the textile fibers are made.

- To understand textile chemistry production and fundamental properties of natural and synthetic fibers.
- To understand the theory of dyeing in relation to various classes of dyes.

Theory

Unit-1: Need and Importance of study of Textile Chemistry:

- Polymer Chemistry.
- Polymers, methods of polymerization, polymerization process.
- Degree of polymerization, types of polymers.

Unit-2: Chemistry of Cellulosic Fibers:

Molecular structure of cellulose, properties and grading of cotton.

- Regenerated cellulosic fibers.
- Rayon, types of rayon, their manufacturing processes and properties.
- Protein Fibers Wool and Silk.
 Molecular structure, properties, processing of protein fibers like degumming, scruing, weanting, shrink proofing felting etc.

Unit-3: Systematic fibers – Polyester, polyamides and acrylonitrites.

Chemistry of Synthetics, raw materials, manufacturing process from polymer to fiber stage, properties and their uses, blends of different fibers, their properties and uses.

Unit-4 : Dyeing:

- Preparation of fabric.
- Theory of dyeing.
- Classification, colour and chemical constitution. Application of dyes, pigments and their application.
- Dyeing methods and industrial application.

Unit-5 : Printing:

- Preparation of fabric for printing.
- Styles of printing.
- Methods of printing.
- After treatment.

Practicals :-

- (1) Preparation of fabric for dyeing and printing.
- (2) Dyeing of yarns and fabric.
 - Direct, reactive, vat, sulphur, azo.
 - Acid, chrome, metal comples.
 - Basic, disperse
 - Natural dyes.
- (3) Printing Screen, block, resist, discharge, stencil and flock printing, mordant printing.
- (4) Internship of 1 month at dyeing, printing unit.

References :-

- (1) Shenai, V.A. (1991), Introduction to the Chemistry of Dye Stuff Sevak Publication.
- (2) Cook, J. Gordon, Hand Book of Textile Fibres, Merrow Publishing Co.
- (3) Trotman, E.R. (1975), Dyeing and Chemical Technology of Textile Fibres, Charles Griffino Co. Ltd. London.

Subject Code 115PD49 Programme Design and Evaluation in Textile Clothing

Theory: 2 Periods/wk (Credits 2)

Practical: 4 Periods/wk (Credits 2)

Theory Paper: 35

Th. Int. Asst. Mks.: 15

Pra. Int. Ass. Mks.: 25

Pra.Int.Ass.Mks. – 25 Total Mks. : 75

Learning Objectives:- After completing this course students will be able to-

- understand the process of programme designing
- develop ability in planning programmes related to textile and clothing.

Theory

Unit-1: Programme Planning - Meaning, and importance.

- Pre-requisite of developing plan.
- Programme planning processes.

Implementation:-

- Aspects of Execution.
- Factors responsible for the successful conduction of a programme.

Unit-2: Evaluation, Follow up and Documentation

Evaluation

- Meaning and purpose of Evaluation.
- Types and tools of Evaluation.

Follow up

- Need for follow up.
- Methods of follow up

Documentation

- Need for reporting and recording.
- Aspects to be covered.

Unit-3: Training Programme on Dyeing and Printing

- Developing skills
- Developing New Shades.
- Quality Control and Testing

Unit-4: Skill development programme in-

- Embriodery techniques / Garment
- Designing / sewing techniques.

Unit-5:

- Management Information System (MIS)
- Organization of exhibitions and fashion shows...

References:-

- 1) Albrecsht, H. et. al. (1989). Rural Development Series Agricultural Extension Vol. I & II. Basic concepts and methods, Wiley Eastern Limited, New Delhi.
- 2) Chaubey, B.K. (1979). A Handbook of Extension Education, Jyoti Prakashan; Allahabad.
- 3) Dahama, O.P. and Bhatnagar, O.P. (1987). Education and Communication for development. Oxford and IBH Publishing Co., Pvt. Ltd.; New Delhi.
- 4) Extension Education in Community Development. (1961). Ministry of Food and Agriculture. Government of India. New Delhi.
- 5) Pankajam, G. (2000). Extension Third Dimension of Education, Gyan Publishing House; New Delhi.
- 6) Ray, G.L. (1999). Extension Communication and Management. Naya Prokashi; Calcutta.
- 7) Reddy, A. (1999). Extension Education, Sree Lakshmi Press, Bapatla.
- 8) Sandhu, A.S. (1994) Extension Programme Planning. Oxford & IBH Publishing Company Private Limited, New Delhi
- 9) Singh, R. (1987) Textbook of Extension Education. Sahitya Kala Prakashan, Ludhiana.
- 10) Supe, S.V. (1982). Introduction to Extension Education. Oxford Publishers; New Delhi

Subject Code 114ED50 Entrepreneurship Development in Textile and Clothing

Theory: 3 Periods/wk(Credits 3)

Practical: 2 Periods/wk(Credits 1)

Th. Int. Asst. Mks.: 30

Practical Mks.: 20

Pra.Int.Ass.Mks. – 05 Total Mks. : 100

Learning Objectives :-

- To promote entrepreneurship skills among student.
- To understand the process and procedure of setting up small enterprises.
- To develop management skills for entrepreneurship developments.

Theory

Unit-1:

- Entrepreneurship Definition, concept and characteristics.
- Government policies towards promotion of entrepreneurship.

Unit-2: Agencies for development of entrepreneurship. Role of SSI, MIDC and NSIC, Banks and voluntary organizations.

- Personal Effectiveness factors affecting entrepreneurs role, effective communication skill, achievement motivation, goal orientation psychological barriers to self employment, creativity, assertiveness and quick response.
- **Unit-3**: **Importance of textile industry in Indian Economy** problems and prospects of textile industry. National textile policy.

Unit-4: Principles of marketing and merchandising for the domestic and export market export policy of

Unit-5: Legislations – Licensing, registration, municipal laws, business ethics, income tax, labour law application. Consumer complaint redressal.

Practicals :-

(1) Related Experience:-

- Visit to small scale industry.
- Visit Agencies that finance SSI.

(2) Project :- Survey of local market to know needs of consumer -

- Formation of project proposal.
- Report on visits.

(3) Practical:- Preparation of Articles based on following-

Dyeing printing, embriodary, Garment manufacturing, soaps, detergents, stain removers.

Minimum 5 articles from the above are to be prepared and organise exhibition-cum-sale of the prepared products.

References:-

- (1) Akhauri, M.M.P. (1990), Entrepreneurship for Women in India, NIESBUD, New Delhi.
- (2) Patel, V.C. (1987), Women Entrepreneurship Developing New Entrepreneurs, Ahmedabad EB11.
- (3) Hisrich, R.D. and Peters M.P. (1995), Entrepreneurship Starting, developing and managing a new enterprise, INC USA.

Subject Code 111CA51 Computer Application in Textile & Clothing Statistics

Practical: 4 Periods/wk (Credits 2) Practical Mks.: 35

Pra.Int.Ass.Mks. – 15 Total Mks. : 50

Learning Objectives: - After completing course students will be able to-

- understand use of computer in statistical analysis in Textile Statistics.
- develop skill of drafting text, tables, figure.

Practicals:

- (1) Computer Basics
 - 1.1 Computer Hardware and software.
 - 1.2 Input and out put devices.
 - 1.3 Basic Operations in data handling (copy, paste, prepare file / folder, burn CD's etc.)
- (2) MS Word
 - 2.1 Introducton to MS Word.
 - 2.2 Formatting text
 - 2.3 Drafting tables.
 - 2.4 Use for drafting text and reports.
- (3) MS Excel
 - 3.1 Introduction to MS Excel.
 - 3.2 Use for analysis of data in textiles.
 - 3.3 Use for statistical analysis in textiles.

Descriptive Statistics – Mean, standard deviation.

Correlation – Pearson correlation between two or more variables.

Parametric test – t test, z test, analysis of variance.

Non-parametric text – chi test.

- 3.4 Graphical Presentation Graphs and bar diagrams.
- 3.5 Introduction to applicable statistical analysis softwares.

References:-

- (1) Garrett, Henry E. (1971), Statistics in Psychology and Education, David Hanley and Co.
- (2) Edward, Experimental Design in Psychological Research.
- (3) Kerlinger, Foundation of Educational Research.
- (4) Literature of MSCIT.

Syllabus Prescribed for M.Sc. (Home Science) (Textile and Clothing) Semester-II

Subject Code: 124FA52 Fashion and Apparel Design

Theory: 3 Periods/Wk (3 Credits)

Practical: 4 Periods/Wk (2 Credits)

Theory Internal: 30

Practical: 35

Practical Internal: 15

Total Marks: 125

Objectives:

- To create awareness of fashion and apparel design as an art and science of visualizing, creating and developing fashions
- To Focus on design elements and principles, garment details on
- To develop and understand the principles of pattern making through flat pattern

Theory

Unit 1 : History of fashion, concepts of fashion, factors influencing fashion

Unit 2: \Box Classification of fashion

☐ Designers – international and domestic

☐ Fashion forecasting

☐ Study of markets and segments

Unit 3	:	 □ Elements used in creating a design □ Colour – its sensitivity and composition in dress □ Components of fashion – Silhoutte, details, colour, fabric, texture, se 	ams, trims		
Unit 4	:	Fabric types and their buying criteria for – woven, non woven, knitted a	and underlying fabrics		
Unit 5	:	Pattern making through flat pattern Pattern making terms Anthropometric measurements, standard measurement chart and figured Understanding the commercial paper pattern Layouts for cutting	ire types		
Practica	als				
1) 2) 3) 4) 5)	Fashion sketching – Basic figure drawing for women. Sketching of different action croquie (front, back and side view) Garment and garment details Accessories Designing through flat pattern – dart manipulation				
1) 2) 3) 4) 5) 6) 7) 8)	J. Ander Brouche Sharon I Kathryn Carter E Carr H. S London, Complet	son Black, Muidge Garland, A History of Fashion, Orbis Publishing Ltd r Francois, A History of Costume in the West. Thames and Hudson Lee Tete, Inside Fashion Design. Harper and Row Publishers, N. York Samuel, Life Styles, Fashion Styles. Orbis London . (1977) The Changing World of fashion. G.P. Putnam's Sons, New Yor and Pomery J. (1992) Fashion Design and Product Development. Blacks Edinburgh e guide to sewing. Reader's Digest Association, New York Clothing Construction, Mc Graw Hill, 1973	k		
		Subject Code: 124TT53 Textile Testing and Quality Control			
-		ls/Wk (3 Credits) ods/Wk (2 Credits)	Theory Paper : 45 Theory Internal : 30 Practical : 35 Practical Internal : 15 Total Marks : 125		
Objecti	ives:				
•	To acquaint the students about physical properties of textiles To familiarize students with various testing equipments To impart knowledge of various test methods applied to textiles in various stages To make them understand the quality control and standardisation				
Theory		1 7			
Unit 1	:	Introduction to Textile Testing ☐ Meaning, definition, need and importance. ☐ Properties of textiles at different stages of processing and their princi ☐ Fibres – length, fineness ☐ Yarn – Strength, evenness, openness, load elongation and crimp	iples of measurement		
Unit 2	:	1 am – Suengui, eveniess, openiess, toad etongation and crimp			
Cint 2	•	Fabrics – count, strength, elongation, shrinkage, thickness, crease recover permeability, drapability, flammability, repellency and colour fastness	very, stiffness, air		
Unit 3	:	☐ Concept of fabric faults related to stages of manufacture and the rem ☐ Garment finishing – colour fastness, shrinkage	edies		
Unit 4	:	Concept of Statistical Quality Control ☐ Sampling ☐ Test methods used ☐ Tolerance limits, CV%			
Unit 5	:	 □ Standardisation and quality control of textile products □ Concept, need and importance □ National and International organizations for standardization □ Quality standards as applicable to various types of textiles (Garments carpet, processing and dyeing) 	s, yardage, knits, woven,		

Practicals

- Physical testing of textiles using appropriate standardised procedures

 1) Fibers Length, diameter and fineness

 2) Yarn Count, heaviness, twist, crimp, strength

 3) Fabric Thread count, thickness, stiffness, crease recovery, bursting strength, drape tensile strength

 4) Colour fastness tests to various agencies

References

- 1) Shenai V.A. (1984) Technology of Textile Processing, Vol. IX, Sevak Publication
- 2) Booth J.E. Principles of Textile Testing: Newness Butter Worth, London
- 3) Grover and Hambi. Handbook of Textile Testing and Quality control, Wiles
- 4) John H. Schinkle. Textile Testing, Brooklym, New York
- 5) ASTM and ISI Standards
- 6) ISI Specifications, BIS specifications
- 7) ASTM standards
- 8) Marsh J.T. (1979) An Introduction to Textile Finishing, B.L. Publications.

Subject Code: 123TC54 Textile Clothing and Human Psychology

Theory: 3 Periods/Wk (3 Credits)

Practical: 2 Periods/Wk (1 Credit)

Theory Internal: 30

Practical Marks: 20

Practical Internal: 05

Total Marks: 100

Objectives: The aim of this course is

- To study the psychological effect of clothing on the individual in social situations
- To impart knowledge regarding the factors that affect making clothes for individual in terms of texture, fabric growth, development etc.

Theory Unit 1	:	Origin of clothing Variations in costumes due to material aspects and climate Religious influence on costume Influence of events of the world Clothing symbols
Unit 2	:	Essentials of clothing ☐ Importance of clothing ☐ Psychological aspects of clothing
Unit 3	:	Individual clothing ☐ Factors to be considered while selecting and making individual garments
Unit 4	:	Clothing budget and Wardrobe planning ☐ Clothing and family budget ☐ Individual clothing budget and wardrobe planning
Unit 5	:	Socialisation and development of the self Social norms Attitudes and value formation Individuality and conformity Person and group identification

Practicals

Study of clothing trends among college going boys and girls.

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 to Psychology, 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, New Delhi.
- (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.

Subject Code: 125CA55 Communication Approaches in Textiles and Clothing

Theory: 3 Periods/Wk (3 Credits)

Practical: 2 Periods/Wk (1 Credit)

Theory Internal: 30

Practical Internal: 25

Total Marks: 100

Objectives:

- To develop understanding regarding vital aspect of communication and various audio visual media/mass media and their use
- To became familiar with important communication programmes.
- To develop skills to prepare and use communication tools.

Theory

Unit 1: **Introduction to Communication**

- 1.1 Concept of communication, aims and objectives
- 1.2 Importance and need for communication in textiles and clothing
- 1.3 Factors influencing clothing and fashion

Unit 2: The mes and messages for textiles and clothing

- 2.1 Themes in textiles and clothing
- 2.2 Messages in fashion clothing
- 2.3 Themes and messages for different target groups
- 2.4 Fashion designer, merchandiser
- 2.5 Government and non government organizations and consumers

Unit 3: Fashion and Communication Process

 $\hfill \Box$ Written communication – Fashion writing, creative writing, writing management and advertising, public relations and media ethics

Unit 4: Visual Communication

- 4.1 Visual merchandising and display
- 4.2 Fashion photograph
- 4.3 Fashion shows and multimedia

Unit 5 : Approaches in Textiles and Clothing

- 5.1 Traditional approaches
- 5.2 Presentation of traditional approaches
- 5.3 Modern approaches
- 5.4 Presentation of modern approaches

Practicals

- 1) Study of existing approaches in textiles and clothing market
- Identifying themes in Textiles and Clothing and prepare, present and evaluate the following tools (any four)
 Poster, Banners, Slogans, Charts, flash cards, Leaflets, Educational games, Transparencies, CD, Script for
 radio and TV

References

- 1) Maan, Gurmeet Singh (1987) The Story of Mass Communication : An Indian Perspective. New Delhi, Harnam Publishers.
- 2) Tiwari I.P. (1987) Communication Technology and Development. New Delhi, Ministry of Information and Broadcasting.
- 3) Sharma S.C. (1987) Media Communication and Development. Jaipur, Rawat Publishers.
- 4) Hartman, Paul and others (1986) The Mass Media and the Village Life: An Indian Study. New Delhi, Sage Publication.
- 5) Melkote S.R. (1991) Communication for Development in Third World: Theory and Practice. New Delhi, Sage.
- 6) Bhatnagar S. and Satyapal A. (eds.) (1988) education and Communication Technology: Perspective, Planning and Implementation. New Delhi.
- 7) Joshi P.C. (1989) Culture Communication and Social Change. New Delhi, Vikas Publications.
- 8) Shrivastava K.M. (1992) Media Issues, New Delhi Sterling Pub.
- 9) Bergin F. (1976) Practical Communication, London, Pitman
- 10) MEDIA (1984) Education, Paris, UNESCO

Subject code: 124RM56 Research Methods in Textiles & Clothing

Theory: 3 Periods/Wk (3 Credits)

Practical: 2 Periods/Wk (2 Credits)

Theory Internal: 30

Practical Marks: 20

Practical Internal : 05 Total Marks : 100

Objectives: After completion of course students will be enable to-

- know importance of research in textiles and clothing
- understand the types, tools applicable to research problem
- develop skills of preparing out line of research work

Theory

Unit 1: Foundation of Scientific Research

- 1.1 Research meaning and definition
- 1.2 Need of research in textiles and clothing
- 1.3 Research process
 - Selection and formulation of research problem
 - Specifying objectives
 - Formulating hypothesis
 - Deciding variables

Unit 2 : Design Strategies in Research

- 2.1 Descriptive studies
 - Correlation studies
 - Case studies
 - Cross sectional/Survey
- 2.2 Analytical studies
 - Observational studies
 - Cohort studies
 - Cross sectional studies/Survey

Unit 3 : Methods of Sampling

- 3.1 Characteristics of good sampling
- 3.2 Probability or random sampling
- 3.3 Non probability sampling

Unit 4 : Research Tools

- 4.1 Levels of data measurements and characteristics of good measurement
- 4.2 Types of tools and their uses
 - Questionnaire
 - Schedule
 - Rating scale
 - Attitude scale
 - Interview structured and unstructured
 - Observation participant and non participant
- 4.3 Concept of data
 - Types of Data Qualitative and Quantitative data
 - Analysis of Data Qualitative and Quantitative data analysis

Unit 5 : Statistical Testing of Hypothesis

- 5.1 Application of parametric tests
 - r test
 - t tests
 - Z test
 - F test
 - ANOVA
- 5.2 Application of non parametric tests
 - Chi square test
 - Spearman's Rank correlation

Practicals

- 1) List research areas in textiles and clothing
- 2) Prepare synopsis/outline of dissertation work
 - Select problem for dissertation from literature research, experiences of guide, teachers, and experiment/pilot study.
 - Find out key words, their meaning and definitions from dictionary and encyclopedias.
 - Design conceptual model of the study.
 - Collect review on selected variables from national and international journals and prepare note cards and reference cards (follow the rules of scientific writing)
 - Decide and prepare tools of measurement of variables
 - Specify objectives
 - Frame hypothesis
 - Select locale of the study
 - Decide sample size and sampling techniques
 - Decide applicable statistical tests
- 3) Conduct pilot study for calculating validity, reliability and usability of the tools.
- 4) Prepare master table for analysis
- 5) Prepare time schedule and note down facilities required for dissertation work.

References

- 1) Van Maanen (1983) Qualitative Methodology. Sage Publication
- 2) Sumati Mulay and Sabarathanam V.E. (1980) Research Methods in Extension Education. New Delhi, Sole Selling Agents, MANASHYAN, 32.
- 3) Bryman A. and Cramer D. (1994) Quantitative Data Analysis for Social Scientist
- 4) Aravindra Chandra and Saxena T.P. Style Manual for Writing: Thesis, Dissertations and Papers in Social Sciences. New Delhi, Metropolitan Book Co. Pvt. Ltd.
- 5) Kerlinger, Foundation of Educational Research
- 6) Ingle P.O. Scientific Report Writing. Nagpur, Sarla P. Ingle

(Note: The syllabi for General Interest Course shall be as per Science faculty.)
