

Syllabus

SUBJECT: BACHELOR RESEARCH IN ARTS (HOME SCIENCE)

National Education Policy-2020



SRI DEV SUMAN UTTARAKHAND UNIVERSITY

BADSHAHITHAUL (TEHRI GARHWAL) UTTRAKHAND

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SUBJECT: BACHELOR RESEARCH IN ARTS (HOME SCIENCE)
Curriculum Design Committee, Uttarakhand

Sr.N.	Name & Designation	
1.	Prof. N.K. Joshi Vice-Chancellor, Sridev Suman Uttarakhand University, Tehri	Chairman
2.	Prof. O.P.S. Negi Vice-Chancellor, Uttarakhand Open University, Haldwani	Member
3.	Prof. Jagat Singh Bisht Vice-Chancellor, Soban Singh Jeena University Almora	Member
4.	Prof. Surekha Dangwal Vice-Chancellor, Doon University, Dehradun	Member
5.	Prof. M.S.M. Rawat Advisor, Rashtriya Uchchar Shiksha Abhiyan, Uttarakhand	Member
6.	Prof. K. D. Purohit Advisor, Rashtriya Uchchar Shiksha Abhiyan, Uttarakhand	Member

SUBJECT EXPERT COMMITTEE

Name	Designation	Affiliation
Prof. Preeti Kumari	Principal & Professor	Govt. P.G. College, Deoprayag
Prof. Aditi Vats	Professor & Head	Department Of Home Science, G.B.Pant University Pantnagar

SYLLABUS PREPARATION COMMITTEE

Name	Designation	Affiliation
Dr. Preeti Sharma	Assistant Professor & Head	Department Of Home Science Govt. P. G. College, New Tehri, Tehri Garhwal, Uttarakhand
Dr. Anamika Chauhan	Assistant professor & Head	Department of Home Science Chaman Lal P.G. College Haridwar, Uttarakhand

(FOURTH YEAR)

Bachelor Research in Arts (Home Science)

Year	Semester	Name of Course	Course number	Credit
4	VII	Advanced Food Science	HSC/BG015	04
		Theories of Human Development	HSC/BG016	04
		Advanced Fabric and Clothing Construction	HSC/BG017	04
		Research Methodology in Home Science	HSC/BG018	04
		Project or Advance Extension Education	HSC/BG019(A/B)	04
		Practical	HSC/BG020	06
		TOTAL		26
	VIII	Food Safety and Preservation	HSC/BG021	04
		Statistics	HSC/BG022	04
		Advanced Home Management	HSC/BG023	04
		Development Communication (minor elective) (OR) Consumer Education	HSC/BG024(A/B)	04
		Project or Life Span Development	HSC/BG025(A/B)	04
		Practical	HSC/BG026	06
		Total		26

Program Outcomes (POs)

- The program has been framed in such a manner that students receive real feel of quality education by touching all aspects of the human lifecycle.
- Designed to enhance the capacity of students to understand universal and domain- specific values in Home Science.
- Develop the ability to address the complexities and interface among self, social and national priorities.
- Inculcate both generic and subject-specific skills to succeed in the employment market and standards of life.
- Promote research and innovation and design (product) development favouring all the disciplines in Home Science.
- This programme develops a scientific and practical approach among the students which helps in their day to day life

DETAILED SYLLABUS

SEVENTH SEMESTER

HSC/BG015: ADVANCED FOOD SCIENCE

CREDIT: 04; MARKS- 100

Unit-1

Cereals: Breakfast cereals– Uncooked and ready to eat products; Cereal-based products– processed, fermented and baked

Pulses and legumes: Composition and processing; Toxic constituents of Pulses and elimination of toxic

Unit-2

Fruits: Composition and nutritive value

Vegetables: Classification, composition, nutritive value and methods of cooking

Unit-3

Meat: Composition, cooking of meat; Changes produced during meat cooking; Meat substitutes.

Egg: Nutritive value and structure; Storage and processing; Effect of heat on egg protein; Egg products; Egg cookery; use of egg as a thickening agent and an emulsifying agent.

Milk: Composition and importance; Milk processing; Milk products; Milk substitute.

Unit-4

Sugar; different types of sugar, Indian confectionery.

Spices and condiments: Role of major and minor spices and their use; active principles in Some spices.

Reference Books:- 1. Amerine MA, Pangborn RM, Roceasier EB(1965). Principles of Sensory Evaluation and Academic Press, NewYork.



2. Srilakshmi, B. Food Science, 4th Edition, New Age Publishers, New Delhi.

HSC/DG016: THEORIES OF HUMAN DEVELOPMENT

CREDIT: 04; MARKS- 100

Unit -1

Maslow's self-actualization theory

Freud's psychosexual and psychoanalytic theory. Erikson's psychosocial theory

Unit-2

Skinner's theory of Operant and Instrumental conditioning Pavlov's theory of classical conditioning

Thorndike's Trial and Error Theory Learning

Unit-3

Kohlberg's six stages of moral reasoning

Unit -4

Piaget's cognitive development theory

References Books:-

1. Morgan, Kingetal (1999): "Introduction to Psychology", Tata McGraw-Hill Edition, Delhi, India
2. HurlockE(2000): "Child Development", Tata McGraw-Hill Edition, Delhi, India 3. Bal Vikas evam Bal Manovigyan, Brinda Singh, Panchseel Prakashan, Jaipur

HSC/DG0 17: ADVANCED FABRIC AND CLOTHING CONSTRUCTION

CREDIT: 04; MARKS- 100

Unit -1

General principles of clothing construction; Steps in clothing construction: Preparation of fabric

Equipment used in clothing construction

Sewing machine: Parts and attachments; common defects and remedial measures, care and maintenance

Unit -2

Anthropometric Measurements: Need; taking measurements for different garments; precautions and method; tools and materials.

Unit-3

Techniques of clothing construction:

Drafting: Meaning and importance; tools, method and precautions; drafting on paper and cloth;



Pattern making: Meaning and importance; parts of pattern; tools required; symbols used and general rules for clothing construction,

preparing layout; marking of cloth; principles of cutting; principles of stitching; finishing

Unit -4

Use of construction features in design- seams, darts, tucks, pleats, gathers, placket opening, shirring Different types of-necklines, collars, yokes and sleeves. Renovation of clothing.

Reference Books:-

1. Vastra evam Paridhan, Shashi Prabha Jain and Archana Jain, Shiva Prakashan, Indore
2. Parivarik Paridhan Vyavastha, Manju Patni and Sapna Henry, Star Publications
3. Vastra Vigyan ke Mool Sidhanth, G.P.Sherry, Vinod Pustak Mandir
4. Griha Vigyan Vishwa kosh, Rama Sharma and M.K Mishra, Arjun Publishing House

HSC/DG0 18: RESEARCH METHODOLOGY IN HOME SCIENCE

CREDIT: 04; MARKS- 100.

Unit -1

Research; Meaning ,Objective, Importance and Types of Research.

Research Process

Need and Role of Research in Home Science

Unit -2

Definition and identification of research problem selection of Hypothesis, basis assumption and limitation of research problems.

Types and function of Hypothesis. Types of variables.

Unit -3

Research design- definition, types, basic principles and purpose. Population and sample.

Probability sampling, non probability sampling.

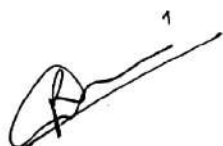
Unit -4

Sources of data. Different type of Data, Importance of Data , Data Collection Techniques

Analysis of data, Report writing.

Reference Books:-

1. Gupta, S.P., Statistical Methods, Sultan Chand and Sons, New Delhi, 1994
2. Jain, Gopal Lal, Research Methodology, Methods, Tools and Techniques, Mangal Deep Publications, Jaipur, 1998



3. Kothari, C.R.: An Introduction to Operational Research, Vikas Publishing House Pvt. Ltd, NewDelhi,1994
4. Wright, Susan ESocial Science Statistics Allyn and Bacon Inc.,London,1986
5. Wisniewski, Mik, Quantitative Methods for Decision Makers, Macmillan India Ltd., NewDelhi,1986

HSC/BG019: PROJECT or ADVANCED EXTENSION EDUCATION

CREDIT:04 MARKS- 100

Based on the courses being undertaken during the concerned semester.

- Unit 1** Extension Education: Meaning, Concepts, Objective, Scope, Principles, Philosophy of Extension Education,
Extension Education as a discipline with special reference to Home Science extension education. Scope of Home Science Extension Education.
- Unit 2.** Role and Qualities of an Extension worker. Steps in Extension Teaching Process, Criteria for Effective Teaching & Learning.
Extension systems- types, advantages and disadvantages
- Unit 3.** Audio-visual Aids: Definition, Importance, Classification, Selection, Preparation and effective use of Audio- visual aids.
- Unit 4.** Communication and Extension Teaching Methods: Definition, Importance, Characteristics, Elements, Models and Challenges in Communications.
Relationship between Communication, Extension and Development.
Extension Teaching Methods- Classification, Factors guiding the selection and use of Extension teaching methods.

Reference Book

1. Aggarwal, R. (2008). "Communication-today and tomorrow", New Delhi: Sublime Company
2. Dubey V. KSrivastava Archana, Agrawal Garima, Grah Vigyan Prasar evam Sampreshan, Star Publications Agra.
3. Harpalini B. D. Patni. Manju, (Prasar Shikshan Evam Sanchar) Star Publications, Agra. ISBN 978-93-81246
4. . Shaw Geeta Pushp, Shaw Jois Sheela, Prasar Shiksha, Vinod Pustak Mandir Agra. ISBN 81-7457-104-3
5. Dhahama, O. P., & Bhatnagar, O. P. (1988). "Education and Communication for Development". New Delhi.- Oxford and IBH Publishing Co. Pvt. Ltd.



6. Jaipal Singh." PrasarShikshaavamGramin Vikas" SR Scientific publications, Agra
7. Chauhan & sharma , Avash Evam prasharshiksha, Pragati prakashan, ISBN 935531768-9
8. Reddy A. (1987)."Extension Education". Bapatha, Andhra Pradesh, India: Sreelakshmi Press.
9. Supe A. N. (1983). An introduction to Extension Education, Delhi: Oxford IBH publishing

HSC/PG020: PRACTICAL

CREDIT: 06; MARKS- 100

1. Construction of Darts, Pleats, Tucks, Gathers; basic Seams; Collars and Sleeves.
2. Drafting of adult basic bodice and sleeve block and stitching of Blouse and Kurta
3. Understanding and handling of Sewing Machine: Various parts; accessories; care, common defects and remedial measures.
4. Preparation of recipes from different Indian state.

EIGHTH SEMESTER

HSC/PG021: FOOD SAFETY AND PRESERVATION

CREDIT: 04; MARKS- 100

Unit-1

Food sanitation and hygiene Food borne diseases

Unit-2

Food Adulteration , Fortification of foods with vitamins and minerals ,Novel and processed supplementary foods

Enzymes in food processing

Unit-3

Evaluation of foods: Visual examination and Sensory evaluation (colour, texture, flavor and taste). Fermented foods, pickles, sauces.

Unit-4

Causes of food spoilage

Food Preservation–Principles and methods

Preserved and processed products from fruits and vegetables

Reference Book

1-Fundamental of food and nutrition, S. R Mudambi and M V. Rajagopal, New Delhi



- 2 A Textbook of Food, Nutrition and Dietetics, M.R. Begum, Sterling Publishers Pvt Ltd
- 3 Cherley H 1982 ,Food Science 2nd edition. John wiley and Sons New Delhi.
- 4-Gopalan C 1993 Recent trends in Nutrition. Oxford University Press
- 5-Handbook of food and nutrition ,M.Swaminathan, Bappco.

HSC/DG022: Statistics

CREDIT: 04; MARKS- 100

UNIT-1

Meaning and uses of statistics, classification and tabulation of data construction of frequency distribution table.

UNIT-2

Diagrammatic representation of data- Single Dimensional diagram (line and bar), Two dimensional diagram (pie).

Graphical representation of data- Graphs of frequency distribution. (histogram, frequency polygon, frequency curve)

UNIT-3

Descriptive statistics: Measures of central tendency: (Arithmetic mean, mean, median, mode), relation between mean median and mode ;Measure of dispersion: Range, Mean deviation & Standard deviation.

UNIT-4

Theoretical Probability Distribution: Binomial, Poisson and normal distribution; Testing of Hypothesis: Null and Alternative Hypothesis, level of significance, Student 't' distribution and its application, Chi-square(χ^2) test & its application, 'F' test and its application.

Reference Books:-

1. Statistical Methods – S.P.Gupta, Sultan Chand & Sons Publisher- New Delhi
2. Research Methodology, Methods and Techniques – C.R. Kothari Wiley Eastern Limited – New Delhi
3. Elements of Statistics, Theory & Practice – M.Singhal. Lakshmi Narain Agarwal, Educational Publisher – Agra
4. An Introduction to Statistical Methods – C.B.Gupta & V.Gupta- Vikas Publishing House PVT Ltd. New Delhi.



5. Research Methods & Measurements in Behavioural & Social Sciences – G.L.Bhatnagar – Agri. Cole. Publishing Academy, New Delhi.
6. Statistical Methods – S.P.Gupta, Sultan Chand & Sons Publisher- New Delhi
7. Research Methodology, Methods and Techniques – C.R. Kothari Wiley Eastern Limited – New Delhi
8. An Introduction to Statistical Methods – S.C.Gupta V.Gupta- Vikas Publishing House PVT Ltd. New Delhi

HSC/BG023: ADVANCED HOME MANAGEMENT

CREDIT: 04; MARKS- 100

Unit-1

Management in family living, characteristics of management in home, role of home management, misconceptions regarding home management

Roles and responsibilities, characteristics and functions of a home manager

Values–Concept, characteristics, classification and factors influencing values

Goals–Concept, types, factors influencing goals

Standards–Concept, classification of standards.

Unit- 2

Management process: Planning, organizing, leading, controlling and evaluating Decision making: Concept, steps, factors affecting, kind

Resources: Meaning and definition, role, characteristics, classification

Unit -3

Time Management: Tools–peak loads, work curves, rest periods and work simplification Energy Management: Classification of efforts used in homemaking, fatigue– types and

Causes. Work simplification

Unit- 4

Money Management: Budgeting– Definition, importance and steps in planning

a budget. Account keeping–importance, types of account systems, methods of handling money, family financial records.

Reference Books:-

1. An Introduction to Family Resource Management, Premavathy Seetharaman, Sonia Batra and Preeti Mehra, CBS Publishers and Distributors
2. Economics of the household, B A Drew, Mc Millan company, New York.
3. Consumer Economics, Dr. Richard, Irwin, Illinois (1983)



HSC/PG024 (A): DEVELOPMENT COMMUNICATION

CREDIT: 04; MARKS- 100

Unit-1 Development

- a) Definitions, basic concepts, significance, functions & dynamics of development.
- b) Indicators of development – human development index, gender empowerment measure, human poverty index.

Unit-2 Policies and programmes for Women development

- a) National policy for empowerment of women.
- b) Economic empowerment – women in agriculture, women in industry.
- c) social empowerment – Education, health, Nutrition, housing, drinking water and environment.
- d) Legal empowerment - Legal literacy on personal and family laws. Role of family court and legal aid centres.
- e) Political empowerment – Role of panchayat Raj in political empowerment of women.

Unit -3 Communication Systems

- a) Types of communication systems- Concept, functions, significance.
- b) Mass communication, elements, characteristics and scope.
- c) Visual communication.
- d) Media in development communication, understand the role of traditional and modern media in development of communication.
- e) Traditional Media – puppetry, folk media

Unit-4 Modern Media of Communication

- a) Print Media – books, newspapers, magazines, leaflets and pamphlets.
- b) Electronic Media – Radio, T.V. Video, Computer based Technologies.
- c) Outdoor Media – Exhibitions & fairs.
- d) Barriers of Communications.

Reference Books:-

1. Corner J. "Communication Studies – An introductory Reader".
2. Delayers & Denis, "Understanding Mass Communication"
3. MCQuail D, "Introduction to mass communication, sage Publication.
4. Wright, Winters and Zeiger, " Advertising Management", MCGraw Hill, New Delhi
5. Dahama O.P. & Bhatnagar O.P., " Education & Communication for Development", Oxford & B.N. Publishing Co. New Delhi.
6. G.L. Ray, "Extension Communication & Management"



HSC/BG024 (B): CONSUMER EDUCATION
CREDIT: 04; MARKS- 100

Unit -1

- a. Consumer – Definition, meaning, Characteristics and type
- b. Consumer behavior- meaning, factors influencing, consumer and sales techniques
- c. Rural vs urban consumer characteristics and problems

Unit -2

- a. Consumer rights and responsibilities,
- b. Consumer organizations – origin, functioning, role and types.
- c. Consumer protection and Government legislation – Act and orders

Unit -3

- a. Introduction to tax and their kinds main taxes in India
- b. Income – meaning, types. Income tax

Unit -4

- A .Consumer cooperatives – role, history and growth in India, PDS Kendriya Bhandars.
- b. Standardization and quality control measures: ISI, FPO, AGMARK, ISO, Eco mark, Wool mark, Silk mark, Cotton mark, Handloom mark, BEE star labelling and others

References Books:-

- Khanna S.R., Hanspal S., Kapoor S. & Awasthi H.K., 2007, Consumer Affairs, Universities Press India Pvt. Ltd.
- Sawhney, H.K. & Mital, M., 2007, Family Finance & Consumer Studies, Elite Publishing House Pvt. Ltd.
- Seetharaman, P. and Sethi, M., 2001, Consumerism: Strength and Tactics, New Delhi: CBS Publishers.

HSC/BG025: PROJECT or LIFE SPAN DEVELOPMENT

CREDIT: 04; MARKS- 100

-Based on the courses being undertaken during the concerned semester.

Unit -1 Puberty and Adolescence

Puberty and Adolescence–definition and characteristics Physical changes during puberty and adolescence Developmental tasks of adolescence

Social and emotional development during adolescence. Factors affecting social and emotional



Development. Role of parents, teachers, peers and society. Problems of Adolescence

Unit -2 Adulthood

Characteristics; Sub-stages; Developmental Tasks

Problems: Adjustments, Interests, Vocational, Marital life and adjustments, Divorce, Re- marriage, Unmarried life/singlehood

Unit-3 Middle Age

Characteristics; Subdivisions; Developmental Tasks

Problems: Some common problems unique to old age; Physical changes, Health, Changes in interests, Vocational, Changing family pattern, Family adjustments, Loss of spouse.

Unit-4 Old Age

Characteristics; Subdivisions; Developmental Tasks

Types of Changes during ageing: Physical, Sensory, Sexual, Health, Changes in motor abilities, Changes in mental abilities and cognitive capacities, Changes in interests, Retirement, Loss of spouse; Vocational and Family life hazards of old age; Consequences of ageing.

Reference Books:-

1. Vikasatmak Manovigyan, Rajendra Prasad Singh, Jitendra Kumar Upadhyay, Rajendra Singh; Motilal Banarsidass, NewDelhi.
2. Bal Vikas evam Bal Manovigyan, Vrinda Singh, Panchsheel Prakashan, Jaipur 3. Hurlock B Elizabeth (1981), Developmental Psychology- A Life Span Approach, TataMacGrawHill
4. Hurlock B Elizabeth (1978), Child Growth and Development, Tata McGrawHill 5. Hurlock B Elizabeth (1997), Child Development, TataMcGrawHill
6. Papalia E Diane & Olds Wendkos Sally (1975), A Child's World-Infancy through Adolescence, McGraw-HillBookCompany
7. Berk E Laura (2000) , Child Development, Allyn and Bacon

HSC/PG026: PRACTICAL

CREDIT: 06; MARKS 100

- 1 Home scale food preservation- preparation of jam, pickle, sauce, syrup etc.
- 2 Study of food labels of processed foods available in the market.
- 3 Survey of adolescents from rural and urban areas.
- 4 Survey of old people from rural and urban areas to study their problems.
- 5 Making a family budget for different income groups while taking into consideration saving and taxes..