

**3 Yr. Degree Course
(One Major & Two Minor)
based on NEP-2020
HOME SCIENCE**



(Effective from Session 2025-26)

(Batch: 2025-2028)



SAMBALPUR UNIVERSITY

JYOTI-VIHAR, BURLA, SAMBALPUR, ODISHA-768019

COURSE AT A GLANCE (NEP-UG)

SUBJECT: HOME SCIENCE

ACADEMIC SESSION: **2025-28**

CORE-I COURSE

| Course Number | Semester | Course Title | Type of Paper P-Practical NP-Non-practical | Credit Hour | Maximum Weightage of Marks |
|---------------|----------|---|--|-------------|----------------------------|
| Paper-I | I | FOOD AND NUTRITION | P | 4 | 100 |
| Paper-II | | CHILD DEVELOPMENT | P | 4 | 100 |
| Paper-III | II | FAMILY RESOURCE MANAGEMENT | P | 4 | 100 |
| Paper-IV | | HOME SCIENCE EXTENSION EDUCATION | P | 4 | 100 |
| Paper-V | III | INTRODUCTION TO TEXTILES | P | 4 | 100 |
| Paper-VI | | DYNAMICS OF COMMUNICATION | P | 4 | 100 |
| Paper-VII | | DEVELOPMENT IN LATE CHILDHOOD AND ADELOSCENCE | P | 4 | 100 |
| Paper-VIII | IV | MATERNAL AND CHILD NUTRITION | P | 4 | 100 |
| Paper-IX | | HUMAN PHYSIOLOGY | P | 4 | 100 |
| Paper-X | | FUNDAMENTALS OF CLOTHING AND FASHION DESIGN | P | 4 | 100 |
| Paper-XI | V | MARRIAGE AND FAMILY STUDY | NP | 4 | 100 |
| Paper-XII | | FAMILY FINANCE AND CONSUMER STUDIES | P | 4 | 100 |
| Paper-XIII | | COMMUNITY HEALTH AND NUTRITION | P | 4 | 100 |
| Paper-XIV | VI | RESEARCH METHODOLOGY | NP | 4 | 100 |
| Paper-XV | | HOUSING AND INTERIOR DESIGN | P | 4 | 100 |
| Paper-XVI | VII | THERAPEUTIC NUTRITION | P | 4 | 100 |

| | | | | | |
|-------------|------|------------------------------------|---|---|-----|
| Paper-XVII | | EARLY CHILDHOOD CARE AND EDUCATION | P | 4 | 100 |
| Paper-XVIII | | HOUSEHOLD ECONOMICS | P | 4 | 100 |
| Paper-XIX | | RURAL DEVELOPMENT | P | 4 | 100 |
| Paper-XX | VIII | FABRIC CARE AND MANAGEMENT | P | 4 | 100 |
| Paper-XXI | | FOOD SAFETY AND STANDARDS | P | 4 | 100 |
| Paper-XXII | | EXCEPTIONAL CHILDREN | P | 4 | 100 |
| Paper-XXIII | | ENTERPRENURSHIP DEVELOPMENT | P | 4 | 100 |

CORE-II/CORE-III COURSE

| Course Number | Semester Core-II/ Core-III | Course Title | Type of Paper P-Practical NP-Non- practical | Credit Hour | Maximum Weightage of Marks |
|---------------|--------------------------------------|----------------------------------|---|----------------|----------------------------------|
| Paper-I | I/II | FOOD AND NUTRITION | P | 4 | 100 |
| Paper-II | III/IV | CHILD DEVELOPMENT | P | 4 | 100 |
| Paper-III | V/VI | FAMILY RESOURCE MANAGEMENT | P | 4 | 100 |
| Paper-IV | VII | HOME SCIENCE EXTENTION EDUCATION | P | 4 | 100 |
| Paper-V | VIII | INTRODUCTION TO TEXTILE | P | 4 | 100 |

OTHER COURSES

MULTIDISCIPLINARY COURSES (MDC) UNDER NEP-2020

Three courses to be chosen from **baskets of Multidisciplinary courses** for Semester-I/II/III with 3 credits each. Students are advised to choose one course/ Semester from the basket provided. Students are advised to opt for courses outside their discipline. No repetition of courses allowed.

(Ref: University Letter No-3177/Acd. – I, Dated: 15. 07. 2025 & Letter No. 3993/Acd-I Dated: 02.09.2025)

SEMESTER: I

| Course No. | Semester | Dept. to Teach | Course Title | Type of Paper P-Practical NP-Non-practical | Credit Hour | Maximum Weightage of Marks |
|------------|------------|----------------|--------------------------------------|--|-------------|----------------------------|
| Paper-I | Semester-I | Chemistry | Environmental Chemistry | NP | 3 | 100 |
| | | Botany | Gardening and Vermicomposting | NP | 3 | 100 |
| | | Economics | Economics in Everyday Life | NP | 3 | 100 |
| | | History | History of Education in Modern India | NP | 3 | 100 |
| | | Odia | Tulanatmak Sahitya | NP | 3 | 100 |
| | | Pol. Sc. | Political Process in India | NP | 3 | 100 |
| | | English | Ethical Literature | NP | 3 | 100 |
| | | Commerce | Financial Literacy | NP | 3 | 100 |
| | | Education | Educational Psychology | NP | 3 | 100 |

SEMESTER: II

| Course No. | Semester | Dept. to Teach | Course Title | Type of Paper P- Practical NP -Non-practical | Credit Hour | Maximum Weightage of Marks |
|------------|-------------|-------------------|---|---|-------------|----------------------------|
| Paper-II | Semester-II | Statistics | Survival Analysis and Biostatistics | NP | 3 | 100 |
| | | Zoology | Apiculture | NP | 3 | 100 |
| | | Education | Gender and Education | NP | 3 | 100 |
| | | Geography/Geology | Climatology | NP | 3 | 100 |
| | | Philosophy | Vedic Culture | NP | 3 | 100 |
| | | Hindi | Vigyapan Avadharana Aur Prayojanmulak Aayam | NP | 3 | 100 |
| | | Home Science | Food Science and Processing | NP | 3 | 100 |
| | | Commerce | Fundamentals of Entrepreneurship and E-Commerce | NP | 3 | 100 |
| | | Economics | Demography | NP | 3 | 100 |

SEMESTER: III

| Course No. | Semester | Dept. to Teach | Course Title | Type of Paper P- Practical NP-Non-practical | Credit Hour | Maximum Weightage of Marks |
|-------------------|---------------------|------------------------------|---|--|--------------------|-----------------------------------|
| Paper-III | Semester-III | Mathematics/Computer Science | Programming in C++ | NP | 3 | 100 |
| | | Physics | Introduction to Spectroscopy | NP | 3 | 100 |
| | | History | Indian Knowledge System | NP | 3 | 100 |
| | | Pol. Sc. | Human Rights | NP | 3 | 100 |
| | | Sociology | Environmental Issues and Challenges | NP | 3 | 100 |
| | | Commerce | Entrepreneurship Development and Start-up | NP | 3 | 100 |
| | | Psychology | Health psychology | NP | 3 | 100 |
| | | Sanskrit | Philosophy of Bhagavad Gita | NP | 3 | 100 |
| | | Botany | Herbarium Preparation | NP | 3 | 100 |

ABILITY ENHANCEMENT COURSE(AEC) UNDER NEP-2020

| Sl. No. | Semester | Course | Credit hour (CH) | Full Mark |
|----------|----------|--------------------------|------------------|-----------|
| Paper-I | I | Odia/Hindi/Sanskrit/Urdu | 4 | 100 |
| Paper-II | II | English | 4 | 100 |

SKILL ENHANCEMENT COURSES (SEC) UNDER NEP-2020

Three courses to be chosen from the **baskets of SEC** for Semester-II/V/VI respectively with 3 credits each. Student can opt any one of SEC courses in a particular semester from the basket without repetition.

(Ref: University Letter No-3177/Acd. – I, Dated: 15. 07. 2025) **NB: All courses are non-practical (NP) papers.**

| Sl. No. | Semester | Course title | Credit hour (CH) | Marks |
|---------|----------|---|------------------|-------|
| Paper-I | II | Personality Development Or Election studies and public opinion Or Quantitative and Logical Thinking Or Analytical Thinking and Logical Reasoning Or Renewable Energy & Energy Harvesting Or Vermicomposting | 3 | 100 |

| | | | | |
|-----------|----|--|---|-----|
| Paper-II | V | <p>Yoga in Everyday Life</p> <p>Or</p> <p>Basics of Museum and Achieves</p> <p>Or</p> <p>Working with Communities</p> <p>Or</p> <p>Fundamentals of data science and data management</p> <p>Or</p> <p>Quantitative and Logical Thinking</p> <p>Or</p> <p>Programming With Mathematica</p> | 3 | 100 |
| Paper-III | VI | <p>Life Skill Education</p> <p>Or</p> <p>Quantitative and Logical Thinking</p> <p>Or</p> <p>Income Tax E-return Filing</p> <p>Or</p> <p>Organic Farming</p> <p>Or</p> <p>Biofertilizer</p> <p>Or</p> <p>Type Setting in Latex</p> | 3 | 100 |
| | | | | |

VALUE AIDED COURSES (VAC) UNDER NEP – 2020

(Ref: University Letter No-3177/Acd. – I, Dated: 15. 07. 2025)

| Sl No | Semester | Paper | Course title | Credit | Marks |
|---------|----------|-----------|---|--------|-------|
| Paper-I | I | PAPER I | Environmental Studies and Disaster Management | 3 | 100 |
| Paper-I | III | PAPER II | Ethics & Values | 3 | 100 |
| Paper-I | V | PAPER III | Understanding Odisha | 3 | 100 |
| Paper-I | VI | PAPER IV | Creative Writing | 3 | 100 |

Contents

1. Structure and Regulation.....

2. Core Courses (4 Credits each).....

3. Multidisciplinary Courses.....

(3 courses to be chosen from baskets of Multidisciplinary for Semester-I/II/III with 3 credits each)

4. Ability Enhancement Courses.....

(Odia and English are the compulsory courses under Semester-I/II respectively with 4 Credits each)

5. Skill Enhancement Courses (SEC).....

(3 courses to be chosen from baskets of SEC for Semester-I/II/III respectively with 3 credits each)

6. Value Added Courses.....

a. Environmental Studies and Disaster management compulsory under Semester-I with 3 Credits

b. 3 courses to be chosen from baskets of VAC for Semester-III/V/VI with 3 credits each

b. Summer Vocational Course
*(Students may opt for vocational courses after 2nd Semester and 4th Semester
for Certificate Course or Diploma Course respectively with 4 credit each)*

Programme Outcome

- **Entrepreneurial Skills** - Equip students with knowledge and skill in Nutrition Science, Human Development, Public Health, Personal Finance, Extension Communication, and Resource Management to empower them to become entrepreneurs.
- **Competency Building** - Enable students to develop competence in Diet Planning, Project Development, Budget Planning, Financial Management, Decision Making, and Fashion Designing.
- **Effective Communication** - Demonstrate proficiency in communication skills, like interpersonal, formal, informal, group, organizational, and public communication including presentation skills.
- **Lifelong Learning** - Acquire skills for lifelong learning, fostering continuous development and personal growth.
- **Employability**- Acquire knowledge and skill to enable them for various service sectors and professions.
- **Exploration** - Enrich the research database by conducting relevant research on contemporary social issues, challenges, and opportunities.
- **Higher Education** - Prepare students for higher education and professional pursuits across various domains.

Note:

- One credit is equivalent to one hour of lecture or tutorials or two hours of practical work/field work per week in a semester. One Credit will be generally equivalent to 15 hours of instructions.
- Each semester shall comprise of 15 weeks of academic activities with a minimum of 90 working days.

| Credit for different classes | | | |
|-------------------------------------|---------------|-----------------|-----------------------------|
| Credit | Theory | Tutorial | Practical/Field Work |
| 1 | 1 Hour | 1 Hour | 2 Hours |

Evaluation:**Distribution of Marks in Semester End and Continuous Evaluation:****(Irrespective of credit in a course/Paper)**

| Course Type | Maximum Marks | Semester End Theory Marks | Continuous Evaluation Marks / Sessional | Mid Semester Theory Marks | Semester End and Practical Marks | Mid Semester Practical Marks |
|--------------------------|----------------------|----------------------------------|--|----------------------------------|---|-------------------------------------|
| Without Practical | 100 | 60 | 20 | 20 | ---- | ---- |
| With Practical | 100 | 50 | 10 | 10 | 20 | 10 |

Distribution of Sessional Marks:

| Course Type | Maximum Marks | Mid Semester | Attendance | Surprise Test / Quiz | Assignment / Presentation |
|--------------------------|----------------------|---------------------------------|--|-----------------------------|----------------------------------|
| Without Practical | 40 | 20 | Above 95% - 5 Marks | 10 | 05 |
| With Practical | 30 | (Theory 10 + Practical 10) = 20 | 85%-94% - 4 Marks 75%-84% - 3 Marks | 05 | Nil |

Note. Below-

- Those who want to exit after second semester shall pursue a vocational course from the basket to get a certificate.
- Those who want to exit after second year shall pursue a vocational course from the basket to get a diploma.
- Those who have already pursue a vocational course in the first summer vacation after second semester are not required to pursue the vocational course again after fourth semester (second Year). However, any student can pursue vocational course in summer vacation either or both in the summer vacations. Admission into fourth year as per the regulation.

Semester I**Core I****Food and Nutrition****Course Outcome:**

- The students will get basic knowledge on food, nutrients and their contribution.
- The students will gain practical knowledge on market survey and locally available food stuffs from each food group.

Learning Outcome:

- The students will learn the basic concepts in food, nutrition and health.
- The students will gain an insight into the classification, functions, dietary sources, and daily requirements of various nutrients.
- The students will understand about different food groups and their nutritional contribution.
- The students will be aware of different methods of cooking along their advantages and disadvantages.

Unit I: Basic Concepts in Food and Nutrition

- Introduction to Food and Nutrition Science- Definitions (food, food science, food additive, fermented food, food fortification, functional food, nutrition, health, nutrients, nutritional status, optimal nutrition, nutrition security).
- Classification and Functions of Food- Physiological, psychological, and socio-cultural.
- Food Groups- Basic five and seven food groups, their nutritional contribution.
- Methods of Cooking- Different methods of cooking and their advantages and disadvantages: Dry methods - frying, sautéing, parching, roasting, grilling/broiling, toasting and baking. Moist methods - boiling, steaming, stewing, simmering, poaching, blanching, pressure cooking. Combination method- braising.

Unit II: Macro Nutrients

- Carbohydrates- Introduction, classification, functions, dietary sources and daily requirements.
- Proteins- Introduction, classification, functions, dietary sources and daily requirements.
- Lipids- Introduction, classification, functions, dietary sources and daily requirements.

Unit III: Micro Nutrients

- Fat Soluble Vitamins (A, D, E and K)- Introduction, functions, dietary sources, daily requirements and deficiency diseases.
- Water Soluble Vitamins (Thiamin, Riboflavin, Niacin, Folate, Vitamin B12 and Vitamin C)- Introduction, functions, dietary sources, daily requirements and deficiency diseases.
- Minerals (Calcium, Iron, Zinc and Iodine)- Introduction, functions, dietary sources, daily requirements and deficiency diseases.

Unit IV: Practical

- Conduct a market survey (On-line/ offline of nearby locality) and prepare a list of food stuffs and food products of the following food groups:
- Cereals, Millets, Pulses, Fruits, Vegetables, Milk and Milk Products, Fish Meat and Poultry Products.
- Weights and Measures: Standardization of household measures for raw and cooked foods.
- Food preparations using different methods of cooking and understanding the principles involved in it - Dry heat-frying, broiling, parching, baking) and Moist heat- boiling, stewing, cooking under pressure:
(One item from each method).
- Preparation of food exchange list of cereals/pulses/fruits/vegetables.

Text Books:

- *Srilakshmi. B, Food Science, New Age International (P) Limited Publishers.*
- *Srilakshmi. B, Nutrition Science, New Age International Pvt. Ltd.*
- *N. Shakuntala Manay, M. Shadaksharaswamy, Foods Facts and Principles, New Age International (P) Limited Publishers.*
- *Swaminathan. M, Advanced Text-Book on Food and Nutrition, Volume 1 and 2, The Bangalore printing and publishing co. LTD.*

Reference Books:

- *Bamji MS, Krishnaswamy K. Brahman GNV. Textbook of Human Nutrition, Oxford and IBH publish Co Pvt. Ltd.*
- *Norman. N Potter, Joseph H. Hotchkiss, Food Science, 5th edition, CBS Publishers, and Distributors.*
- *Mudambi S.R and Rajagopal M.V, Fundamentals of foods and Nutrition, New Age International Pvt. Ltd.*
- *Gopalan, C. Rama Sastry, B.V., and Balasubramanian, S.C., Nutritive value of Indian Foods, National Institute of Nutrition, ICMR, Hyderabad.*

E-Resources:

- <http://www.nutrition.gov>
- <http://www.usda.gov>

□ <http://egyankosh.ac.in>

□ <http://ecourses.icar.gov.in>

Model Questions:

1. Give an example of the fat-soluble vitamins. (**One word**)
2. Define Nutrition. (**Maximum 50 words**)
3. Discuss about the classification of carbohydrate. (**Maximum 250 words**)
4. Explain the classification and functions of food. (**Maximum 800 words**)

Core II

Child Development

Course Outcome:

- Students will be able to understand the crucial aspects of child development.
- Students will understand about the developmental patterns of child development.

Learning Outcome:

- The students will gain an insight on scientific methods of studying child development.
- The students will be aware of the stages of prenatal development and factors affecting pre- natal development.
- The students will understand the developmental patterns during early childhood years (0- 5years).
- The students will gain practical knowledge on development tasks in childhood.

Unit I: Fundamentals of Child Development:

- Child Development- Meaning, definition, principles, stages, and methods of studying child development.
- Prenatal Growth and Development - Meaning, significance and stages of prenatal growth and development, conception, period of ovum, period of embryo and period of foetus.

- Prenatal Environmental Influences- Maternal age, nutrition, drugs, irradiation, alcohol, smoking, maternal emotions, maternal health, Rh factor, diseases and birth hazards.

Unit II: Developmental Milestones (During First Five Years of Child's Life):

- Physical Development- Physical growth cycles, body size, body proportions, bones, teeth, muscles and fat, development of the nervous system.
- Motor Development – Meaning, principles and sequence of motor development.
- Speech Development – Meaning, pre-speech forms of communication, essentials in learning to speak, major tasks in learning to speak and speech disorders.

Unit III: Developmental Milestones (During First Five Years of Child's Life):

- Emotional Development - Meaning, common emotional patterns, and characteristics of childhood emotions.
- Social Development – Meaning, process and importance of early social experiences, factors influencing social development.
- Cognitive Development - Meaning and importance, factors influencing cognitive development.

Unit IV: Practical

- Assessing developments (physical/motor/emotional/social/cognitive/speech) using different methods of child study – interview schedule / observation schedule / anthropometry/ psychometry tests.
- Assessment of existing knowledge, attitudes and practices of parents and field functionaries (ANM/anganwadi workers/teachers) related to developmental milestones of children (any five samples).
- Plan and develop activities for children to facilitate motor and cognitive development through preparation of learning materials such as posters/charts/ toys etc.
- Plotting growth monitoring chart for children from one to five years and its interpretations.

Text Books:

- Hurlock E.B. - *Child Development*; New Delhi; McGraw Hill.
- Hurlock E.B. - *Developmental Psychology*; New Delhi; McGraw Hill.

- *Chowdhury, A - Text Book on Child Development and Family Relations, New Delhi: Academic Excellence.*
- *Panda K.C. - Elements of Child Development; Kalyani Publishers.*
- *Kuppuswamy B -Text Book of Child Behavior and Development; India; Konark Publishers Pvt. Ltd.*

Reference Books:

- Jaya N., and Rajammal P.D. - A Text Book of Child Development. New Delhi: McMillan Publishers.
- Mussen P.H., Conger J.J, Kagan J. - Child Development and Personality; New York; Harpers and Row publishers.
- Weiner I.B., Elkind D. - Child Development: A Core Approach; John Wiley & Sons Inc.
- Papalia, Olds & Feldman - Human Development; McGraw Hill Humanities / Social Sciences/ Language.

E Resources:

- <https://www.choc.org/primary-care/ages-stages/3-years/> □
<https://www.betterhealth.vic.gov.au/health/>.
- <https://raisingchildren.net.au/preschoolers/development/development>.
- <https://www.cdc.gov/ncbddd/childdevelopment/facts.html>
- <https://www.all4kids.org/news/blog/why-the-first-5-years-of-child>

Model Questions:

1. Period of ovum lasts for _days. **(One word)**
2. Explain about the principles of child development? **(Maximum 50 words)**
3. Discuss about the stages of prenatal development? **(Maximum 250 words)**
4. Discuss about the factors affecting the physical growth and development in children. **(Maximum 800 words)**

Semester II

Core III

Family Resource Management

Course Outcome:

- Students will be oriented about the available human and non-human resources in the family and their management.
- Students will learn the importance of judicious management of resources and their conservation techniques for sustainability.

Learning Outcome:

- The students will gain an insight on family resource management and its application. LO2: The students will be aware of the management process.
- The students will learn about judicious utilization of resources management for conservation and sustainability.
- The students will get practical knowledge on event planning and management.

Unit I: Resource Management in Family Setting

- Family Resource Management- Concept, definition and scope of family resource management.
- Resources- Meaning, classification and characteristics of family resources, factors affecting utilization of resources.
- Decision making- Types of decisions, steps of decision making.

Unit II: Motivating Factors in Management and Management Process:

- Motivating Factors in Management- Motivation in management, theories of motivation,
Maslow's hierarchy of needs theory
- Motivating Factors- Values, goals and standards, interrelatedness of values, goals, and standards.
- Management Process- Definition and steps in management process: planning, organizing, controlling and evaluating, qualities of a good home maker.

Unit III: Resource Conservation:

- Money- Types of income, supplementing family income.
- Time- Concept and steps in time management, factors to be considered in making time and activity plan.

- Energy-Efforts, fatigue, work simplification techniques and Mundel's classes of change.
- Space – Meaning, importance, functional storage space management.

Unit IV: Practical

- Conduct a SWOC analysis of self/organization.
- Event planning for departmental activity (Celebration of any special day/seminar/workshop).
- Decision making through management games (Chess/tug of war/UNO).
- Plan and evaluate time activity chart for one day.

Text Books:

- *Seetharaman P., Batra S. and Mehra P., Family Resource Management, CBS Publishers & Distributors, New Delhi.*
- *Nickell, P and Dorsey, J.M., Management in family living, CBS Publishers, and Distributors.*
- *Gross I.H and Crandall E.W., Management for Modern Families.*
- *Home Management–Education Planning Group, Arya publishing house, Delhi.*

Reference Books:

- *Vergese, Ogale and Srinivasan, Home Management.*
- *Mann M.K., Home Management for Indian Families.*
- *Biswal, G.E., Family Resource Management. Himalaya Publishing House.*
- *Mallick P., Text book of Home Science.*
- *Devdas and Jaya, Introduction to Home Science.*

E-Resources:

- <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=8x0nJkh/R0vHkX1U70Z/CQ==>.
- <https://nios.ac.in/media/documents/srsec321newE/321-E-Lesson-10.pdf>
- https://www.brainkart.com/article/Definition-and-Concept-of-Family-Resource-Management_33507/

Model Questions:

1. ----- is the first process in the management process. (one word)
2. Write the meaning and types of decision making in a family. (maximum 50 words)

3. Describe the work simplification process. (**maximum 50 words**)
4. Discuss about the concept, definition, and scope of Family Resource Management. (**maximum 800 words**)

Core IV

Home Science Extension Education

Course Outcome:

- To enrich students about relevance of extension education and its application.
- To understand about the application of extension teaching methods for teaching and training purpose. **Outcome Learning:**
- The students will be enriched with the principle and behavioral changes brought about by extension education.
- The students will understand extension education in community development.
- The students will be aware of the methods of teaching in extension education.
- The students will learn about the educative materials preparation of for different training purposes and get experience of various extension organizations.

Unit I: Introduction to Extension Education:

- Definition, needs, objectives and scope of extension education.
- Philosophy and principles of extension education.
- Behavioral changes through extension education.

Unit II: Role of Home Science Extension Education in Community Development:

- Meaning, definition and areas of community development. Home science extension education and its inter-relationship with community development.
- Role & qualities of Home Science extension workers.
- Home Science Extension Programmes- Mission Shakti, MGNREGA, National Mission for empowerment of women, ICDS, Green India Mission (GIM).

Unit III: Teaching Methods in Extension Education:

- Classification of Extension Teaching Methods- Individual, group and mass methods. individual methods: farm and homevisits, office calls, telephone calls, personal letters.

- Group Methods- Method demonstration, campaign, puppetry, general meeting result demonstration, group discussion, tours, field trips, lecture, seminar, and workshop, advantages and disadvantages.
- Mass Methods- Leaflets and folders, exhibition, circular letter, radio, television, bulletins, story film show, and news articles, advantages & disadvantages.

Unit IV: Practical

- Prepare a leaflet/poster on various issues related women, children and environment.
- Prepare a project report within one thousand words on women/children/environment.
- Prepare a flow chart on the steps of method demonstration by extension worker.
- Visit to Mission Shakti centers/ NGO and prepare a report (Objectives, Functions, Achievements)

Text Books:

- V. K Dubey, Indira Bishnoi, *Extension Education and Communication*, New Age International Publishers.
- S. V Supe, *An Introduction to Extension Education*, Oxford and Publishing Co. Pvt. Ltd
- Nibedita Mishra and Gayatri Biswal, *Text Book of Home Science Extension Education*, Recent Edition.

Reference Books:

- *Text book of Home Science- Premlata Mallick.*
- *Education and Communication for Development*, O.P Dahama, O.P. Bhatnagar.

E-Resources:

- <https://Timesagriculture.Com/Role-Of-Home-Science-Extension-In-Education/>
- <https://Www.Researchgate.Net/Publication/>
- <https://Alhafeezcollege.Org/Alfz/Assets/Uploads>
- <https://Www.Rohtasmahilacollegessm.Ac.In/Wp-Content/Uploads/Sites>
- <https://Www.Egyankosh.Ac.In/Bitstream/123456789/53665/3/Block-1.Pdf>

Model Questions:

Q.1- The term extension education is derived from _____(one word)

Q.2- What are the qualities of extension worker. (Answer maximum 50 words)

Q.3- Explain about the method demonstration. (Answer maximum 250 words)

Q.4- Define extension education and discuss about the principles of extension education. (Answer maximum 800 words)

Semester III

Core V

Introduction to Textiles

Course Outcome

- Students will develop an idea about different textile fibers.
- Students will develop the skills to analyse yarn construction techniques.

Learning Outcome:

- The students will learn about classification, usage and production of textile fibres.
- The students will know the manufacturing process and yarn construction techniques.
- The students will gain an insight on techniques of fabric construction, dyeing and printing.
- The students will be enriched about different types of dyeing and printing techniques.

Unit I: Introduction to Textile Fibres:

- Definition of textile fibres, terminology and classification of textile fibres.
- Production, Manufacturing Process, Properties and usage of fibres- Natural fibre (cotton, silk and wool).
- Production, Manufacturing Process, Properties and Usage of Fibres- Man-made fibers (rayon (Viscose), polyester, nylon).

Unit II: Yarn Construction

- Types and Classification of Yarns- Simple, ply yarns, cord yarns, novelty yarns. twist in yarn:
“s” and “z” twist.
- Staple yarn formation.

- Woolen and worsted yarn formation process.
- Chemical spinning (wet, dry, melt)

Unit III: Techniques of Fabric Construction

- Weaving- Meaning, essential weaving operation, classification of weaves (plain, basket, ribbed, twill, satin, sateen)- structure, properties, usages.
- Dyeing and Printing Methods – Raw stock dyeing, skein-dyeing, piece dyeing, cross dyeing, tie-die, batik dyeing, printing methods – direct printing, block printing, stencil printing and printing by machine.

Unit IV: Practical

1. Fiber identification: Identification of natural and manmade fibers by following three methods - microscopic test, burning test.
2. Characteristics of Fabric (following standards): Fabric count using pick glass
3. Printing of fabrics using:
 - i. Direct style -
Block, stencil and screen
 - ii. Resist style - Tie
and dye, batik
4. Weaves- Prepare sample weave on plain, basket, ribbed, twill, satin, sateen.

Text Books:

- *Textiles- Fiber to fabric (6th Edition) by Corbman P.B. (1985). Gregg Division /Mc Graw Hill Book Co, US.*
- *Advanced Drafting and Draping by Manmeet Sodhia. New Delhi.*
- *Household Textiles & Laundry Work by Durga Deulkar. Atma Ram & Sons, New Delhi.*

Reference Books:

- *Essentials of Textiles (6th Edition) by Joseph, M.L. Holt, Rinehart and Winston Inc, Florida.*
- *Textile Science by Vilensky G. CBS Publishers and Distributors, Delhi.*
- *Understanding Textiles by Tortora, G. Phyllis. Mc Millanm Co. USA.*
- *Textbook of Fabric Science: Fundamentals to finishing by Sekhri S. (2013). PHI Learning, Delhi.*

E-Resources:

- <https://csauk.ac.in/wp-content/uploads/2022/08/Textile-fiber-NEW.pdf>
- <https://gphisar.ac.in/wp-content/uploads/2022/09/TEXTILE-FUNDAMENTALS.pdf>
- <https://nios.ac.in/media/documents/srsec321newE/321-E-Lesson-23.pdf> □
- <https://egyankosh.ac.in/bitstream/123456789/92831/1/Unit-8.pdf>

Model Questions:

- 1 ----- is known as queen of fiber. **(One Word)**
- 2- Short note on classification of weaving. **(Maximum 50 words)**
- 3- Discuss about the steps of chemical finishing process. **(Maximum 250 words)**
- 4- Explain about the cotton fibers and discuss about the preparation of cotton fibers. **(Maximum 800 words)**

Core VI

Dynamics of Communication

Course Outcome:

- Understand the need of communication and communicate effectively.
- Gain the knowledge about the different aspects of communication.

Learning Outcome:

- The students will understand the concept, functions, types and scope of communication.
- The students will be aware of the principles, elements and models of communication.
- The students will learn about the concept of effective communication.
- The students will learn skills of writing scripts and preparation of educational aids for effective communication.

Unit I: Introduction to Communication

- Meaning, definition concept, nature and scope of communication
- Types of Communication- Formal and informal communication, verbal and non-verbal communication.
- Functions and characteristics of communication.

Unit II: Principles, Elements, and Models of Communication:

- Elements of communication and principles of communication
- Barriers to communication- Mental, physical, technical, environmental, semantic.
- Models of communication- Aristotle, Laswell, Shannon and Weaver, Osgood and Schramm, Riley model.

Unit III: Effective Communication

- Meaning, concept, and importance of effective communication.
- Factors influencing and hindering effective communication, importance of communication process.
- Role of empathy, persuasion, perception, listening, propaganda and publicity for effective communication.

Unit IV: Practical

1. Plan and conduct a small group communication in classroom setting on any topic and prepare a report.
2. Visit to a nearby slum/community/village and communicate with the people on specific issues (health/ environment / social and write a report.
3. Write a short story with any social message related to Home Science.
4. Prepare a power point presentation on any contemporary social issue.

Text Books:

□ *for O.P Dahama, O.P Bhatnagar. Education and communication development.*

□ **Reference Books:** *G.L. Ray. Extension communication and management.*

□ *Inc Barker, L. (1990) "Communication" New Jersey Prentice Hall 171.*

□ *Patri and Patri (2002); Essentials of communication Greenspan publication*

E-Resources:

- <https://nscpolteksby.ac.id/ebook/files/Ebook>
- <https://www.researchgate.net/publication/>
- <https://www.semanticscholar.org/paper/The-Dynamics-of-Communication>
- <https://www.arcjournals.org/pdfs/ijhsse/v3-i10/3.pdf>

□ <https://faculty.wcas.northwestern.edu> **Model Questions:**

1. The term Communication is derived from _____. (One word)
2. What are the elements of communication. (Maximum 50 words)
3. Discuss about the functions of communication. (Maximum 250 words)
4. What are the different models of communication and explain it with its significance.
(Maximum 800 words)

Core VII Development in Late Childhood and Adolescence

Course Outcome:

CO1- Students will be able to gain understanding about the various needs of adolescent years.

CO2- This course will help to provide guidelines about the developmental tasks of adolescent years.

Learning Outcome:

LO1: The students will know about the characteristics, body changes and effect of puberty

LO2: The students will learn about the characteristics, developmental tasks and body changes during adolescence.

LO3: The students will gain an insight on characteristics, developmental tasks, and changes in early adulthood.

LO4: The student will understand about various adjustments of family.

Unit I: Late Childhood Years:

- Characteristics and developmental tasks of late childhood.
- Physical development, speech improvements and emotional expressions in late childhood.
- Social grouping and personality changes in late childhood.

Unit II: Puberty:

- Meaning, characteristics and age at puberty
- Body changes at puberty, puberty growth spurt: age and stages of puberty growth.
- Physical, psychological, and emotional changes during puberty.

Unit III: Adolescence:

- Meaning, characteristics of adolescent years.
- Developmental tasks during adolescence.
- Physical, emotional, hormonal and behavioral changes.

Unit-IV: Practical:

- Prepare a poster on developmental tasks of late childhood / adolescence.
- Develop an interview schedule for identifying adolescent's problems / issues and drawing inferences (at least 2 boys and 2 girls).
- Assess physical/social/emotional development among boys and girls during late childhood /adolescence.

Text Books:

- *Hurlock E.B. - Developmental Psychology; New Delhi; McGraw Hill.*
- *Chowdhury, A - Text Book on Child Development and Family Relations, New Delhi: Academic Excellence.*
- *Panda K.C. - Elements of Child Development; Kalyani Publishers.*
- *Kuppuswamy B -Text Book of Child Behavior and Development; India; Konark Publishers Pvt. Ltd.*

Reference Books:

- *Singh A. (Ed.) Foundation of Human Development, A life span approach, New Delhi, Orient Black Swan.*
- *Berk. L.E.- Development through the life span, Delhi: Person Education.*
- *Rice F.P – Human Development: A life span approach, New Jersey: Prentice Hall*
- *Rutter, M., and Rutter – A topical approach to life-span, development, New Delhi Tata McGraw-Hill.*

E-Resources:

- <file:///C:/Users/Lenovo/Downloads/Block-3.pdf>

□ <https://egyankosh.ac.in/bitstream/123456789/17134/1/Unit-3.pdf>

□

<file:///C:/Users/Lenovo/Downloads/Unit-4.pdf>.

Model Questions:

1. Define Late Childhood? **(One Sentence)**
2. What are the characteristics of Late Childhood. **(maximum 50 words)**
3. Discuss about the speech improvement and emotional development during late childhood years
(maximum 250 words)
4. Explain about the characteristics and developmental tasks of adolescent years
(maximum 800 words)

Semester IV

Core VIII

Maternal And Child Nutrition

Course Outcome:

- The students will gain knowledge about the fundamentals of maternal and child nutrition.
- The students will be able to prepare diets for different stages of life.

Learning Outcome:

- The students will learn about the recommended dietary allowance and principles of balanced diet.
- The students will have an insight about nutritional requirements during infancy, preschool and school going age.
- The students will be able to understand about the nutrition requirement during adolescence and nutrition for women in special conditions.
- The students will gain practical knowledge on menu planning for different stages of women and children.

Unit I: Menu Planning

- Explanation of terms related to menu planning (health, nutrient requirement, dietary standards, dietary reference intake, RDA, adequate intake, Estimated Average Requirement), determinants of food choice
- Food Guide- Food pyramid, my plate, mediterranean diet.
- Balanced Diet- Meaning, principles of planning balanced diet, steps involved in planning a diet.

Unit II: Nutrition in Infancy, Preschool and School Going Age

- Nutrition during Infancy- Introduction, growth and development during infancy, nutritional requirements, food requirements, breast feeding, weaning and artificial feeding.
- Nutrition in Preschool- Introduction, nutritional requirements, food requirement, factors affecting nutritional status, nutritional related problems and feeding programs for preschool children.
- Nutrition in School Going Age- Introduction, nutritional requirement, food requirement, nutritional problems of school children, packed lunches, and school lunch program.

UnitIII: Nutrition in Adolescents and Women in Special Conditions:

- Nutrition in Adolescence- Introduction, nutritional requirements, food requirement, nutritional problems, nutritional program for the adolescents
- Nutrition during Pregnancy- Introduction, physiological changes during pregnancy, nutritional requirement, food requirement, general dietary problems.
- Nutrition during Lactation- Introduction, role of hormones during lactation, nutritional requirements and dietary guidelines for lactating women.

Unit-Iv: Practical

- Plan and prepare one day menu, calculate calorie, protein, and fat for the following age groups: infant, children and adolescent.

- Plan a one-day menu for pregnant / lactating woman and calculate calorie, protein, calcium, and iron.
- Plan and prepare one set of packed lunch for school going children (vegetarian/non-vegetarian).
- Develop and prepare one weaning food mix from local available foods.

Text Books:

- *Srilakshmi. B; Dietetics, New Age International (P) Limited Publishers.*
- *Mahtab S.Bamji, Prasad Rao, N.Vinodini Reddy; Textbook of Human Nutrition, Oxford and IBH Publishing Co. Pvt. Ltd.*
- *Begum. M. R, A Textbook of Food, Nutrition & Dietetics, Sterling publications Pvt. Ltd.* □ *Advanced Textbook on Food and Nutrition Volume 1 and 2 by Dr. M Swaminathan, The Bangalore Press.*

Reference Books:

- *Seth V and Singh K. Diet Planning through the Life Cycle: Part 1 and 2, Elite publishing.*
- *Nutrient Requirement and Recommend Dietary Allowances for Indians by Indian Council of Medical Research, National Institute of nutrition, Hyderabad.*
- *Chada, R. and Mathur, T., Nutrition – A Life Cycle Approach, The Orient Blackswan.*
- *Mallick P., Text book of Home Science, Kalyani Publishers, Chennai.*

E-Resources:

- <http://www.nin.res.in>
- <http://www.ods.od.nih.gov>
- <http://egyankosh.ac.in>
- <http://ecourses.icar.gov.in> **Model Questions:**

1. Mention the calorie recommendation for a pregnant woman. **(One word/ sentence)**
2. Define balanced diet. **(Maximum 50 words)**
3. Write down the nutritional problems encountered by school-going children. **(Maximum 250 words)**
4. Define meal planning. Discuss about the factors to be considered for meal planning.

(Maximum 800 words)

Core IX

Human Physiology

Course Outcome:

- The students will understand the structure and function of different organ systems of the body.
- The students will be able to get practical knowledge in human physiology.

Learning Outcome:

- The students will be able to understand the physiology of cell, blood, and heart.
- The students will gain knowledge on the structure and functions of digestive, excretory and reproductive system.
- The students will be able to understand the structure and functions of nervous, respiratory, and endocrine system.
- The students will be able to get practical experience on human physiology.

Unit I: Cell and Blood Circulation

- Human Cell - Structure and functions of cell organelles, cell division.
- Blood - Composition, structure and functions of RBC, WBC, blood platelets, blood coagulation, blood groups and Rh factor.
- Heart- Structure and function of heart, cardiac cycle, blood pressure.

Unit II: Digestive, Excretory and Reproductive Systems

- Digestive System – Structure and functions of different parts of digestive system and accessory glands (liver, pancreas, and gall bladder).
- Excretory System- Structure and functions of Urinary system and mechanism of urine formation.
- Reproductive System- Structure and functions of reproductive system (male and female), physiology of menstrual cycle.

Unit III: Nervous, Respiratory and Endocrine Systems

- The Nervous System- Structure and function of brain, sympathetic and parasympathetic nervous system.
- The Respiratory System - Structure and functions of lungs, mechanism of respiration, external and internal respiration and vital capacity.

- The Endocrine System - The location and functions of various endocrine glands – Pituitary, Thyroid, Parathyroid, Adrenal, Islets of Langerhans and Gonads.

Unit IV: Practical

- Prepare posters (any two) showing the organs and functions of human system. (Digestive/ Reproductive / Respiratory/Endocrine).
- Record blood pressure of five persons by using sphygmomanometer.
- Measure and record pulse rate, oxygen level and body temperature of five persons using oximeter and thermometer.
- Prepare any one model of (Cell/Digestive system/Circulatory systems/Respiratory system/Renal system/ Reproductive system/Skin).

Text Books:

- *C. C. Chatterjee's. Human Physiology revised (Vol- II). 11th colored edition.*
- *Evelyn Pearce Publisher: JAYPEE BROTHERS.*
- *R S Wind wood, J L Smith (1985). Sears Anatomy and Physiology for Nurses. Jaypee Publishers.*
- *P R. Asha Latha & G Deepa. Text Book of Anatomy & Physiology.*

Reference Books:

- *Ganong WF. Review of Medical Physiology, 21st ed Mc Graw Hill.*
- *Yash Pal Bedi. A Handbook of social and preventive medicine, Atma Ram and Sons.*
- *J. E. Park and K. Park. Park's text book of preventive and Social Medicine, 20th edition. M/s Banarsi Das, Jabalpur.*
- *Ross and Wilson. Foundation of Anatomy and physiology, medical division of Longman Group Ltd.*

E-Resources:

- <http://ecourseonline.jastre-nes.in>.
- <http://capenindia.org>.
- <http://www.nutrition.gov>.
- <http://www.fao.org>

Model Questions:

1. Which cell organelle is known as the power house of cell? (**One word**)

2. Name the hormones secreted by pituitary gland. (**Maximum 50 words**)
3. Write short note on White Blood Corpuscles. (**Maximum 250 words**)
4. Explain structure and functions of lungs. Elaborate mechanism of external and internal respiration. (**Maximum 800 words**)

Core X

Fundamentals of Clothing and Fashion Design

Course Outcome:

- Students will acquire a comprehensive understanding on clothing and its dimensions. •

Students will learn the fundamentals on fashion and its application in textile industry.

Learning Outcome:

- The students will be aware about the origin, functions, and importance of clothing.
- The students will learn about the selection, use of clothing and evaluation of ready-made garments.
- The students will get advanced knowledge on fashion and role of a fashion designer.
- The students will understand the aesthetics in dress and will gain practical knowledge in it

Unit I: Importance of clothing:

- Clothing: Meaning, history, importance, functions of clothing: Protection and comfort, Identity, status, and prestige, ornamental and aesthetic, sociability and conformity, self-expression, and actualization function.
- Clothing for Different Activities - Sports and athletic activities, formal events and celebrations, casual outings and everyday wear, work environments, outdoor and adventure activities, gym and fitness workouts, formal education settings, entertainment and performance.
- Theories of Origin of Clothing – Modesty theory, immodesty theory, adornment theory, protection theory, new advances in clothing: Water-repellent clothing,

antibacterial clothing, wrinkle-free clothing, clothing with protection against UV radiation, concept and advantages.

Unit II: Selection of Clothing:

- Selection of clothing according to body build, age group (infant, toddler, teenager, adolescent, and old age), Selection and evaluation of ready-made garments (design, fit, workmanship, price, comfort, care, maintenance), use of colors in clothing.
- Factors Influencing Buying of Ready-made Garment- Size, suitability, durability, aesthetic appeal, occupation, labels (basic information and care labels), brand, socio economic-conditions, location, climate.
- Types of Design and Components in Garments - Structural and applied design, components of garments (sleeves, necklines, collars, pockets).

Unit III: Fashion Design

- Definition and origin of fashion in India, factors favoring and retarding fashion.
- Fashion cycle, classic fashion, and fashion fad, theories of fashion: trickle-down, trickle up, trickle across, role of a fashion designer.
- Leading fashion designing centers in India NIFT, NID, SID, NIIFT.

Unit-IV: Practical

- Flat sketching of sleeves and necklines.
- Flat sketching of collars and pockets.
- Preparation of an album of garment feature collections of famous designers.
- Prepare a catalogue of different garment labels available in market.
- **Text Books:**
 - *Practical clothing construction- Part II by Mary Mathews. Cosmic press, Madras.*
 - *The Complete Book of Fashion Design by Tata S.L., Edwards M.S. Harper and Row Publications, New York.*
 - *Fashion Design by Gayatri Biswal & Chandrashree Lenka, New Delhi.*

Reference Books:

- *Brown, Patty, Rice J., 1998, Ready to Wear Apparel Analysis. Prentice Hall.*

- *Individuality in Clothing & Personal* by Marshall S G, Jackson H O, Stanley MS, Kefgen M and Specht T.
- *Appearance*, 6th Edition, Pearson Education, USA.

E-Resources:

- <https://egyankosh.ac.in/bitstream/123456789/61093/3/Unit-1.pdf>.
- https://www.researchgate.net/publication/309156188_Clothing.
- https://oldsite.pup.ac.in/e-content/social_sciences/home_sc/Textile%201.pdf.
- <https://www.slideshare.net/JoshReal1/clothes-to-wear-in-different-activities>.

MODEL QUESTIONS:

1. theory says that the function of clothing is to protect from embarrassment. **(One word)**
2. Write the function of the clothing. **(Maximum 50 words)**
3. Give short note on factor affecting buying of ready-made garments. **(Maximum 250 words)**

Discuss about various fashion designing centres in India. **(Maximum 800 words)**

Semester V Core XI

Marriage and Family Studies

Course Outcome:

- Students will able to understand about relevance of marriage in sustenance of social life.
- This course will help to bring a harmonious society and family life. **Learning Outcome:**
- The students will learn about marriage, types of marriage and marriage in contemporary society.
- The students will gain an insight on marriage rituals and ceremonies in different Indian communities.
- The students will understand the family, kinship relationship and stages of family life cycle.
- The students will understand about the problems of family.

Unit I: Marriage as an Institution:

- Meaning, definitions, functions of marriage and importance of marriage.
- Types of marriages -Monogamy, polygamy, exogamy, endogamy, polyandry, polygyny.
- Marriage in contemporary society–Arranged marriage, free-choice marriage, inter-caste marriage, inter-religion marriage.

Unit II: Marriage Rituals and Ceremonies:

- Significance of marriage rituals and ceremonies among various Indian communities: Hindus, Muslims, and Christians community.
- Adjustments in marriage- Sexual, financial, within-in-laws family and among working couples.
- Changes in marriage system in India

Unit III: Family System

- Meaning, definition, importance, characteristics of family
- Functions of family (Traditional and Modern)
- Family Life Cycle: meaning, importance and stages of family life cycle.
- Family-in-Transition –Merits and demerits, contemporary family types prevalent in India.

Unit IV: Problems Of Family Life:

- Prevailing Family Problems- Prolonged sickness/illness, accidents, widowhood, unemployment, economic distress/poverty, broken family, family with a disables and suicide in the family.
- Marital Problems- Marital disharmony and conflict, separation and divorce, single parenthood, loss of spouse.
- Counseling and other strategies to overcome the family and marital problem

Text Books:

□ Bhushan V. And Sacha deva D.R. –*Introduction to Sociology; Kitab mahal distributors.*

□ Bhushan V., Sachdeva D.R. –*Fundamentals of Sociology; Pearson.*

□ Duvall E.M. – Miller B.C.; *Marriage and Family Development; Harper colling* □ Goode W.J. –*The Family; Pearson.*

□ Kapadia – *Marriage and Family in India* **Reference Books:**

□ *India Social Problems–Madan G.R.*

□ *Indian Society and Social Institutions*–Mukhi H.R. Surjeet.

□ *Indian Social Problems. Vol. I and II*– G.R. Madan.

□ *Mukh hr.;* *Indian Society and Social Institutions*; SBD Enterprises. **E Resources:**

□ <http://ndl.ethernet.edu.et/bitstream/>

□ <https://www.researchgate.net/profile/Brent-Miller-6/publication/>

□ <https://onlinelibrary.wiley.com/journal/17413737> **Model**

Questions:

1. Define Marriage? (**Answer with one sentence**)
2. Outline the importance of marriage? (**Answer maximum 50 words**)
3. Discuss about types of marriage? (**Answer maximum 250 words**)
4. What is marital problem and explain about different marital problems?

(**Answer maximum 800 words**)

Core XII

Family Finance and Consumer Studies

Course Outcome:

- The students will be enabled to understand the principles of household economics.
- The students will learn the importance and scope of consumer education and consumer protection measures.

Learning Outcome:

- The students will gain knowledge about household income and expenditure.
- The students will be educated on consumer education and problems.
- The students will learn the importance of consumer protection.
- The students will gain practical knowledge on banking system and consumer organizations.

Unit I: Household Income and Expenditure:

- Maintaining household accounts, budget: meaning, significance, types, items of budget and steps in formulating budget.
- Factors influencing expenditure, family savings: concept, importance, objectives, types of savings and institutions of savings.
- National income (GDP, NDP, GNP, NNP) and per capita income: meaning and significance in national growth.

Unit-II: Consumer Education and Problems

- Definition and role of consumers, consumer awareness and education - Concept, Objectives, Importance
- Consumer rights and responsibilities
- Consumer problems- Products and service-related problems and solution

Unit-III: Consumer Protection

- Basic legislative framework for consumer protection in India, consumer protection act 1986, alternative redressal mechanisms, mediation centers.
- Consumer organizations– role and functions
- Quality marks (Handloom Mark, AGMARK, FPO, FSSAI, BIS, ECO MARK, Hall Mark), standardization and quality control measures.

Unit IV: Practical

- Conduct a case study of banker, post office to understand their services and products
- Learn to fill different bank forms for depositing money – fixed deposit or recurring deposit
- Preparing labels for any packaged food product
- Evaluate the packaging of any packaged food item

Textbooks:

- *Khanna S.R., Hanspal Kapoor S. and Awasthi H.K., Consumer affairs, Universities Press India Pvt Ltd.*
- *Nickell, P., and Dorsey, J.M., Management in family living, CBS Publishers, and Distributors*
- *Seetharaman P., Batra S. and Mehra, Family Resource Management, CBS Publishers and Distributors, New Delhi.*

Reference Books:

- *Sawhney H.K and Mital, Family Finance and Consumer studies, Elite publishing House Pvt Ltd.*
- *Mishra N., Personal Finance and Consumer Studies, Kitab Mahal*
- *Seetharaman P. and Sethi M., Consumerism, Strength and Tactics, CBS Publisher, New Delhi*
- *Verges, Ogale and Srinivasan, Home Management.*

E-Resources:

- [http://ecoursesonline.iasri.res.in/course/view.php?id=66¹.](http://ecoursesonline.iasri.res.in/course/view.php?id=66)
- [https://www.vnmkv.ac.in/Content/Home/pdf/student-academic/RMCS-²³33.pdf.](https://www.vnmkv.ac.in/Content/Home/pdf/student-academic/RMCS-²³33.pdf)
- [https://search.worldcat.org/title/Family-finance-and-consumer-studies/oclc/254529310.](https://search.worldcat.org/title/Family-finance-and-consumer-studies/oclc/254529310)
- [https://www.cusrinagar.edu.in/FolderManager/Syllabus/Personal%20PERSONAL%20FINANCIAL%20CONSUMERSTUDIES.pdf.](https://www.cusrinagar.edu.in/FolderManager/Syllabus/Personal%20PERSONAL%20FINANCIAL%20CONSUMERSTUDIES.pdf)

Model Questions:

4. Describe the role and functions of different consumer organizations.
(Maximum 800 words)

Core XIII

Community Health and Nutrition

Course Outcome:

¹ · The income and expenditure plan in a family is known as -----
---- (One word).

² · Write the meaning and concept of per capita income. (Maximum 50 words).

³ · Discuss about the rights and responsibilities of a consumer.
(Maximum 250 word)

- The course will enable the students to know about the concept of community health and nutrition and the nutritional problems.
- The students will learn about the assessment of nutritional status and gain experience on the planning of nutrition and health education programs.

Learning Outcome:

- The students will understand the definition, concept and scope of community health and nutrition.
- The students will gain an insight into nutritional problems and their implications.
- The students will learn about the objectives and methods of assessment of nutritional status.
- The students will gain experience about diet planning of Kwashiorkor and Marasmic child and planning and implementation of nutrition education programs.

Unit I: Nutrition Education and Assessment of Nutritional Status

- Definition and concept of community health and nutrition, concept of nutrition education, methods and teaching aids used in nutrition education.
- Meaning, importance and objective of assessment of nutritional status
- Methods of Assessment: Direct (Anthropometry, Biochemical estimation, Clinical examination, and Biophysical examination) and Indirect (Diet survey, Vital Statistics)

Unit II: Nutritional problem and their implications

- Protein Energy Malnutrition- Introduction, prevalence, classification, etiology, clinical features, nutritional requirement, treatment, and prevention.
- Iron Deficiency Anemia (IDA), and Iodine Deficiency Disease (IDD) – Types, prevalence, etiology, symptoms, prevention/treatment and prophylaxis programs.
- Vitamin A Deficiency (VAD) and Fluorosis - Etiology, prevalence, symptoms, prevention/treatment and prophylaxis programs.

Unit III: Nutritional Policies and Programs and Agencies to combat malnutrition

- Nutrition related Policies, Programs: National Nutrition Policy, ICDS, PDS, TPDS, Antyodaya Anna Yojana, National Food for Work Program
- National Agencies: ICAR, ICMR, NIN, NNMB
- International Agencies: WHO, UNICEF, FAO, CARE.

Unit IV: Practical

- Assessment of nutritional status of five children (1-5 years) by anthropometric measurements.
- Interpretation of data based on BMI of ten numbers of adolescents (boys/girls).
- Plan, prepare and calculate diet for kwashiorkor child /marasmus child/anemic adolescent girls.
- Visit to organizations implementing nutrition programs for children and women in your locality and prepare a report.

Text Books:

- *Park J.E. and park K. Text book of preventive and social medicine, Publications.*
- *Park K Park's Text book or Preventive and Social Medicine M/S Banarasidas Bhanot Publisher, Jabalpur, India.*
- *B. Srilakshmi, Nutrition Science New Age International (CP) Ltd, New Delhi.*
- *Bamji MS Krishnaswamy K and Brahman GNC (Eds), Text Book of Human Nutrition, Oxford and IBH Publishing Co Pvt. Ltd. New Delhi.*

Reference Books:

- *Wadhwa A and Sharma S Nutrition in community – A Text Book, Elite Publishing House Pvt. Ltd New Delhi.*
- *Shukla, P.K., Nutritional problems of India, Prentice-Hall of India New Delhi.*
- *Biswal, G. and Lenka, C. Textbook of Food, Nutrition and Health.*
- *ICMR Dietary Guideline for Indian- A Manual National Institute of Nutrition, Indian Council of Medical Research Hyderabad.*
- *Jelliffe DB, Jelliffe ERP, Zarfar, A and Neumann CG, Community Nutritional Assessment with special reference to less technically developed countries, Oxford University Press Oxford.*

E - Resources:

- <http://www.who.int>
- <http://www.fao.org>
- <http://www.nin.res.in>
- <http://www.nutrition.gov>

Model Questions:

1. Write the full form of PEM. (**One word/ sentence**)
2. Mention any two objectives of nutrition education. (**Maximum 50 words**)
3. Write short note on vital statistics. (**Maximum 250 words**)
4. Discuss about the etiology, symptoms, and nutritional management of kwashiorkor.
(**Maximum 800 words**)

Core XIV

Semester VI

Research Methodology

Course Outcome:

- The students will be oriented towards the importance and need of research in Home Science
- The students will be able to identify various issues in Home Science and will carry out research in the pertinent areas for societal development.

Learning Outcome:

- The students will become aware of meaning, purpose and types of research.
- The students will learn about various types of research designs.
- The students will gain an insight on sampling techniques.
- The students will be educated on research process.

Unit I: Research Methodology

- Research - Meaning, objectives and significance
- Types of research- Descriptive Vs. Analytical, Applied Vs. Fundamental, Qualitative Vs. Quantitative, Conceptual Vs. Empirical.
- Criteria of a good research.

Unit-II Research Design

- Research design - Meaning, concept, need
- Features of a good research design.
- Types of research design-Exploratory, Descriptive, Experimental

Unit III Sampling Techniques and Data Collection:

- Sampling – Meaning and Types (Probability and Non-Probability Sampling)
- Collection of data-Primary and secondary data.

- Tools and techniques of data collection-observation, interview schedule, questionnaire, case study, Focus Group Discussion (FDG).

Unit IV: The Research Process

- Formulating the problem, formulation of objectives and hypothesis, preparing the research design, review of literature.
- Data analysis, measures of central tendency- Mean, median and mode.
- Data interpretation, bibliography and report writing. **Text Books:**

- *Kothari C.R. and Garg G., Research Methodology: Methods and Techniques, New Age International Pvt. Ltd, New Delhi.*
- *Bajpai S.R., Methods of Social Survey and Research, Kitab Ghar.*
- *Swain A.K. P.C., A text book of Research Methodology. **Reference Books:***

- *Kumar R., Research Methodology, A step by step Guide for Beginners, Sage Publication, New Delhi.*
- *Kelinger F.N. and Lee, H. B., Foundations of Behavioral Research, Harcourt College Publishers.*
- *Best J. W. and Kahn J.V., Research in Education.*

E-Resources:

- <https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=8x0nJkh/R0vHkX1U70Z/CQ>
- <https://ccsuniversity.ac.in/bridge-library/pdf/Research-Methodology-CRKothari.pdf>.
- <https://www.euacademic.org/BookUpload/9.pdf>.
- <https://mfs.mkcl.org/images/ebook/Fundamental%20of%20Research%20Methodology%20and%20Statistics%20by%20Yogesh%20Kumar%20Singh.pdf>.

Model Questions:

1. The measures of central tendency are mean, median and ----- (**One word**).
2. Write down the steps in research process. (**Maximum 50 words**).
3. Enumerate the features of a good research design. (**Maximum 250 words**).
4. What is sampling? Discuss about the types of sampling. (**Maximum 800 words**).

Core XV

Housing and Interior Design

Course Outcome:

- The students will gain knowledge in House Planning for different income levels
- The students will gain insight on elements and principles of design and their household application

Learning Outcome:

- The students will gain understanding of the basic principles of housing and house planning.
- The students will get familiarized with the elements of interior design
- The students will be educated on principles of interior design.
- The students will acquire practical knowledge of House planning for different income groups

Unit I: Housing and Principles of House Planning:

- Meaning, Importance, Types of Housing and Housing terms; Significance, functions, and types of houses; Selection of site and Factors influencing it- Location, Size and Shape, physical features, soil condition, sanitary condition, practical convenience
- Principles of House Planning I - Aspect, Privacy, Grouping, Roominess, Flexibility; Principles of

House Planning II – Circulation, Sanitation, Furniture Requirements, Prospect, Economy, Elegance

- Building plans for Family Living – Importance and advantages of planning space, Meaning and Concepts of building plans, Site plan, Floor plan, Elevation, Cross sectional view, Perspective view, Land Scape plan

Unit II: Elements of Design:

- Meaning and Concept of Interior design; Aims of Interior Design-Beauty, Expressiveness and Functionalism

- Elements of Design- Meaning, importance, characteristics of each element and their use in designing - Line, shape, form, space, size, texture and color
- Types of Motifs and arrangement- Motif development and fundamental steps in designing process

Unit III: Principles of Design

- Meaning, nature, types, and significance of design
- Principles of Design- Balance, rhythm, emphasis, proportion, harmony
- Flower Arrangement- History, meaning, types (line, mass, line-mass) and forms (circular, crescent, vertical, horizontal, miniature), tools and equipment required for flower arrangement

Unit IV: Practical

- Draw floor plans of houses for Low/ Middle/ High Income Groups
- Draw different kitchen plans (L-shape, U-shape, Single wall)
- Make a flower arrangement using flowers and foliage (Circular, Crescent, Vertical, Horizontal, Miniature)
- Prepare a poster of different color combinations (Primary, Secondary and Tertiary)

Text Books:

□ *Vergese, Ogale and Srinivasan, Home Management* □ *Mallick P., Text book of Home Science*

Reference Books:

□ *Parvez R., Housing and Space Management, Disha International Publishing House* □ *Renuka S. and Reddy M., Housing and Space Management, ICAR, New Delhi*

E- Resources:

□ <http://ecoursesonline.iasri.res.in/course/view.php?id=653>.

□ <http://ecoursesonline.iasri.res.in/course/view.php?id=213>.

□ <https://www.g-wonlinetextbooks.com/housing-interior-design-2018/>.

□ <https://resources.finalsite.net/images/v1683025189/stmak12mnus/ti8etxsfh1u6ru1jlqu/HousingandInteriordesign.pdf>.

Model Questions:

1. The view of outside features of a house from its windows, door or balcony is known as ----- . (One word/sentence).
2. Write the significance and types of houses. (maximum 50 words).

3. Discuss about the concept and aim of interior design. (**maximum 250 word**)
4. Describe the principles of design in detail. (**maximum 800 words**)

Semester-VII

Core XVI

Therapeutic Nutrition

Course Outcome:

- The students will gain knowledge on therapeutic nutrition.
- The students will get aware about nutritional related diseases.

Learning Outcome:

- The students will gain basic concept of diet therapy and types of therapeutic diets.
- The students will be able to learn the nutritional management of various diseases like diabetes mellitus, cardio vascular diseases, infections, and fever.
- The students will be able to learn the nutritional management of obesity, underweight, gastro- intestinal and liver diseases.
- The students will gain experience about the planning of diet in diseases conditions.

Unit I: Diet Therapy

- Diet Therapy- Meaning of diet therapy, meaning and purpose of therapeutic diet, factors to be considered in modification of normal diet into therapeutic diet.
- Types of Therapeutic Diet- Clear fluid, full fluid, soft, regular normal diet.
- Dietary supplements- Meaning, significance and types of dietary supplements.

Unit II: Diet in Fever, Cardiovascular Disease and Diabetes Mellitus

- Diet in Febrile Condition (TB and Typhoid)- Causes, types, and general dietary considerations.
- Diet in Cardiovascular Disease- Prevalence, clinical effects, risk factors, role of fat in the development of atherosclerosis, dietary management.
- Hypertension- Meaning, causes, types, symptoms, principles of diet, dietary management.
- Diet in Diabetes Mellitus- Prevalence, types, WHO etiological classification, causes, symptoms, diagnosis, complications, and dietary management.

Unit III: Diet in Obesity and Underweight, Gastrointestinal Diseases and Diseases of liver

- Diet in Obesity- Meaning, causes, assessment, types, treatment, complications, dietary management, weight management guidelines.
- Diet in Gastrointestinal Diseases- Peptic Ulcer: Meaning, causes, symptoms and clinical findings, dietary management

Constipation: Meaning, types, dietary considerations.

- Diet in Disease of Liver- Infective Hepatitis: Meaning, symptoms, dietary management.

Cirrhosis of liver: Meaning, causes, symptoms clinical findings and dietary management.

Unit IV: Practical

- Prepare therapeutic diets- clear fluid, full fluid, soft diet.
- Plan a day's menu, prepare, and serve for diabetes mellitus and hypertension.
- Plan a day's menu, prepare, and serve for obesity and peptic ulcer.
- Plan a day's menu, prepare, and serve for infective hepatitis and cirrhosis.

Text Books:

- *Shubhangini. A. Joshi; Nutrition and Dietetics, McGraw Hill Education (India) Private Limited.*

- *Srilakshmi. B; Dietetics, New Age International (p) Limited, publishers.*
- *Swaminathan. M; Advanced Text-Book on Food and Nutrition, Volume 1 and 2, The Bangalore printing and publishing co., LTD.*
- *Begum. M. R, A Textbook of Food, Nutrition & Dietetics, Sterling publications Pvt. Ltd.*

Reference Books:

- *Khanna, K. Gupta S, Seth R, Passi, S.J. Mahan, R. Puri, Text book of Nutrition and Dietetics Phoenix Publishing House Pvt Ltd.*
- *Mahan L K and Escott Stump S Krause's food & Nutrition Therapy, Saunders Elsevier.*
- *Lenka, C. Guidelines for Planning Therapeutic Diets. AkiNik Publications.*
- *ICMR, Nutritive value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research Hyderabad*
- *Michael. J. Gibney et al; clinical nutrition Blackwell science*

E –Resources:

- <http://www.who.int>
- <http://www.nutrition.gov>
- <http://egyankosh.ac.in>
- <http://ecourses.icar.gov.in>

Model Questions:

1. Define Dietary Supplements of therapeutic diet. **(One word/ sentence)**
2. What do you mean by hypertension? **(maximum 50 words)**
3. Give the (WHO) classification of diabetes mellitus. **(maximum 250 words)**

4. Describe the causes, symptoms, and dietary management of liver cirrhosis. (Maximum 800 words)

Core XVII

Early Childhood Care and Education

Course Outcome:

- Students will be able to focus on career opportunities in early childhood care education.
- Students will understand the relevance of early childhood care for constructive future citizen.

Learning Outcome

- The students will be able to understand the importance of early childhood years and programs for early childhood development.
- The students will learn about the contributions of educational philosophers towards ECCE.
- The students will gain knowledge on physical setup, curriculum and personnel required for preschool
- The students will be able to gain practical experience on preschool management.

Unit I: Early Childhood Care

- Early Childhood Care–Meaning, importance and scope of early childhood care in India.
- Child Rearing Practices–Meaning, significance, aspects and factor affecting child rearing practices.
- Children’s Environment–Meaning, importance and role of parents, family and community in creating stimulating environment for children.

Unit II: Early Childhood Care and Education in India:

- Meaning, significance and objectives of early childhood care and education in India.
- Contributions of educational philosophers- Global and Indian perspective: views of educationists and philosophers: Pestalozzi, John Dewey and Maria Montessori, Sri Aurobindo, Rabindranath Tagore, Mahatma Gandhi.

- Provisions and Policies for Child Care and Development in India- Constitutional provisions, legislative provisions and national policy for children-2013, new education policy-2020.

Unit III: Physical Setup of Preschool:

- Pre-school building, essential of good building, plan for a pre-school building, and selection of play equipment.
- Curriculum for pre-school- Types, factors, determining, the effectiveness of the curriculum.
- Pre-school staff, personnel, pre-school records, and reports.

Unit IV: Practical

- Visit to any pre-school and prepare a report on physical set-up curriculum and developmental activities
- Prepare low-cost play equipment suitable for preschool.
- Prepare power point presentation on any one preschool philosopher.
- Conduct a case study on child-rearing practices. **Text Books:**

- *Development, care, and education of preschool children by Aparajita Chowdhury and Rita Chowdhury by Discovery Publication House Pvt. Ltd, New Delhi.*
- *Early childhood Care and Education, Mohanty, J and Mohanty, B, Deep & Depp publication, New Delhi.*
- *A textbook on child development, Raajmahal P. Devadas, N. Jaya, published by Rajilberi for Macmillan India. Ltd.*
- *Kaul, V. Early childhood education program. National Council of Educational Research and Training, New Delhi.*

Reference Books:

- *Agarwal, S.P. and Usmani, M M. Children's education in India: from Vedic times to twenty-first century New Delhi: Shipra.*
- *Canning, N. Play, and practice in the early years: Foundation stage. New Delhi: Sage.*
- *Durlak, J.A. School-based prevention programs for children and adolescents. N.Y.: Sage.*
- *Fleer, M. Early learning and development: Cultural-historical concepts in play. Cambridge: Cambridge University Press.*

E-Resources:

- https://wcd.nic.in/sites/default/files/national_ecce_curr_framework_final
- https://www.education.gov.in/shikshakparv/docs/background_note_ECCE.pdf □
- https://ddceutkal.ac.in/Syllabus/MA_Education/Paper_19.pdf

Model Questions:

1. Define Early Childhood care? (**Answer in one Sentence**)
2. Outline the significance of child rearing practices? (**Answer in maximum 50 words**)
3. Discuss about the contribution of Indian Philosophers on Early childhood care education?
(**Answer in maximum 250 words**)
4. Explain about the provisions and policies for early childhood care education?
(**Answer maximum 800 words**)

Core XVIII

Household Economics

Course Outcome:

- The students will be educated on concepts and importance of Household Economics.
- The students will learn about the national economic environment and constraints of economic growth.

Learning Outcome:

- The students will gain an insight on household economics.
- The students will learn about the economics theory and environment. ○
The students will be oriented on standard of living, money, and banking.
- The students will understand the Indian economic environment and constraints of economic growth.

Unit I: Introduction to Household Economics:

- Meaning, concept and scope of household economics.
- Human wants – Definition, characteristics and classification.

- Utility and Demand -Law of diminishing marginal utility, law of equi-marginal utility, law of demand, elasticity of demand and Engel's law of consumption.

Unit II: Standard of Living, Money and Banking:

- Standard of Living- Significance, standard of life vs. standard of living, factors determining standard of living, causes of low standard of living.
- Money- Meaning, functions and types of money.
- Banking- Concept, functions and types (central and commercial banks).

Unit III: National Economic Environment:

- Constraints of Economic Growth- population growth, income distribution, poverty, unemployment, migration, food security
- Changing Nature of Business World- E-Commerce and E-Business
- Developmental Programmes of Government of India- Pradhan Mantri Jan Dhan Yojana, Prime Minister's Employment Generation Programme, Start Up India Scheme: Objectives and achievement.

Unit IV: Practical

1. Prepare a report on advantages and disadvantages of purchasing clothing items through online shopping (Price, Product quality, Size, Return facility, Durability)
2. Prepare a poster based on Engel's Law of Consumption
3. Prepare a chart on key categories of Public Expenditure
4. Prepare one album on newspaper cuttings on constraints of economic growth

Textbooks:

- *Shukul M. and Gandotra V., Home Management and Public Finance, Dominant Publishers, and Distributors*
- *Ahuja H.L., Modern Micro Economics. Sultan Chand & sons*

□ *Dhingra I. C. and Garg V.K., Introductory Economic Theory. Sultan Chand & Sons*

□ *Mishra and Puri, Recent edition, Indian Economy, Himalaya Publishing House.*

Reference Books:

□ *Sundaram K.P.M., Introduction to Economics. Ratan Prakashan*

□ *Mithani D.M., 2010 New Edition, Macro-Economics. Himalaya Publishing House* **E-Resources:**

□ <http://ecoursesonline.iasri.res.in/course/view.php?id=661>

□ <http://people.soc.cornell.edu/swedberg/2011%20The%20Household%20Economy.pdf>

□ <https://www.wider.unu.edu/sites/default/files/wp159.pdf>.

Model Questions:

1. Human ----- are unlimited. **(One word).**
2. Write the law of marginal utility. **(Maximum 50 words)**
3. Discuss about the meaning, functions, and types of money. **(Maximum 250 word)**
4. Describe the constraints of economic growth. **(Maximum 800 words)**

Core XIX

Rural Development

Course Outcome:

- Students will develop understanding on the importance of rural development.
- Students will understand the functions of rural institutions. **Learning Outcome:**
- Understand the concept of rural sociology.
- Learn about the role of rural institutions.
- Gain knowledge on planning of the rural extension programmes.
- Students will gain practical experience on rural environment.

Unit I: Introduction to Rural Sociology

- Rural Sociology – Meaning, scope, importance
- Characteristics of rural society, rural and urban difference
- Rural Social Groups- Primary and secondary, reference groups, cultural interest groups, temporary and permanent groups

Unit II: Rural Institutions:

- Informal Institutions- Family, class, caste
- Formal Rural Institutions-Village school, gram panchayat, service co-operatives, mahila mandal, youth clubs
- Village Leaders- Identification of leaders, leadership phenomena, development of leaders

Unit III: Programme Planning and Rural Environment :

- Meaning, Programme Planning Process –Collect facts, analyze situation, identify problems, decide on the objectives, develop plan of work, execute plan, evaluation of progress.
- Importance of extension programme and characteristics of a good programme.
- Environment – Natural, artificial, social, psycho-social environment.

Unit-IV: Practical

1. Prepare a flip chart/pamphlet/leaflet on rural surroundings.
2. Prepare a script for a folk song/folk play about rural environment.
3. Visit to a co-operative society and prepare a report.
4. Prepare an outline of an awareness programme on health/social/gender.

Text Books:

- *S. V Supe, An Introduction to Extension Education.*
- *O.P Dahama, O.P Bhatnagar, Education and Communication for Development.*

Reference Books:

- *G. L Ray, Extension Communication and Management.*
- *C. Satapathy and Sabita Mishra, Extension Techniques for Rural Management.* □ *A. Reddy, Extension education*

E Resources:

- <https://egyanagar.osou.ac.in/prog>
- <https://www.india.gov.in/download-e-book-ministry-rural-development> □
- <https://www.ruraluniv.ac.in/facilities?content=eresource>

Model Questions:

1. Define Rural Sociology? (**one sentence**)
2. Write the importance of Rural sociology? (**Maximum 50 words**)
3. Explain about the role of village school? (**Maximum 250 words**)
4. Discuss about the characteristics of rural society? (**Maximum 800 words**)

Core XX

Semester VIII Fabric Care and Management

Course Outcome:

- Students will be able gain skill-based orientation in fabric care.
- This course will help the students to become self - reliant.

Learning Outcome:

- The students will learn about importance and types of fabric care.
- The students will know about types of equipment and reagents used in laundry process.
- The students will get an idea on techniques of fabric cleansing techniques.
- The students will gain practical knowledge on household laundry methods.

Unit I: Care of Fabrics

- Meaning, Importance, Types – Permanent care labeling, coverage and exemptions, label permanency and placement, instructions and low labeling, testing and responsibility.
- Consumer Care Guide for Apparel- Home drying, non-machine washing, machine washable, ironing or pressing.
- Care of Fabrics – Brushing and airing, storing, drying.

Unit II: Laundry Equipment's and Reagents

- Laundry Equipment - Sink, boiler, tubs, buckets, enamel bowls and basins, spoons and containers- scrubbing brushes, scrubbing boards, beaters, suction –washer, dryers-dry- cleaning pump, ironing board, charcoal irons, electric iron, flat iron.
- Use of Cleaning Materials and Other Reagents – Rita nut- shikakai, soaps and soap solutions, washing soda, borax rock ammonia.
- Stains and Bleaching Agents –Types, general rules, process of stain removal of egg, grass, nail polish, curry, ball point ink and oxidizing bleaches, hydrogen peroxide and potassium permanganate, sodium hydrosphere.

Unit III: Laundering Methods and Principles

- Methods of Cleansing- Application of friction: (Hand friction, rubbing and scrubbing), application of light pressure (Kneading and squeezing, suction washing).
- Methods of Finishing- Damping, ironing, pressing steaming, mangling, calendaring.
- Laundering - Laundering of cellulose fabrics, wool, and silk.

Unit IV: Practical

- Prepare a catalogue/booklet on bleaching agents used in cleaning and finishing of fabrics.
- Stain removal (egg, grass, nail polish, curry, ball point ink) from cloth by using stain removal process.
- Prepare an inventory of different laundry equipments.
- Prepare a list of chemicals used for cleansing and laundering of cloths. **Text**

Books:

- *Corban P.B, Textiles- Fiber to fabric. Gregg Division /Mc Graw Hill Book Co, US.*
- *Durga Deulkar, Household Textiles & Laundry Work, Atma Ram & Sons, New Delhi.*
- *Susheela Dan Tyagi. Fundamentals of Textiles and their Care, Orient Black swan Private Limited.*

Reference Books:

- *Joseph, M.L. Holt, Rinehart and Winston Inc, Florida.*

- *Vilensky G Essentials of Textiles by Textile Science, CBS Publishers and Distributors, Delhi.*
- *Tortora, G. Phyllis. Understanding Textiles by Mc Millanm Co. USA.*
- *Sekhri S. Textbook of Fabric Science: Fundamentals to finishing by (2013). PHI Learning, Delhi.*
- *Manmeet Sodhia, Advanced Drafting and Draping.*

E-Resources:

- <https://csauk.ac.in/wp-content/uploads/2022/08/Textile-fiber-NEW.pdf>
- <https://nios.ac.in/media/documents/srsec321newE/321-E-Lesson-27.pdf>
- <https://gphisar.ac.in/wp-content/uploads/2022/09/TEXTILE-FUNDAMENTALS.pdf> □ <https://blogmedia.testbook.com/blog/wp-content/uploads/2022/04/home-science->

Model Questions:

1. What is fabric care? **(One sentence)**
2. Write the importance of Fabric care management? **(Maximum 50 words)**
3. Discuss about types of fabric care? **(Maximum 250 words)**
4. Discuss about different types of Laundering methods and principles? **(Maximum 800 words)**

Core XXI

Food Safety and Standards

Course Outcome:

- The student will gain knowledge about food contamination and food borne illnesses.
- The students will get insight on food laws and standards.

Learning Outcome:

- The student will learn about concept of food contamination, food toxicants and safe handling practices.
- The student will understand about different food borne illnesses and food adulteration.

- The student will gain insight into different food laws, national and international food standards. The student will gain experience about detection of food adulterants and food safety standards used in different food products.

Unit -I: Introduction to Food Contamination and Food Safety

- Food contamination: Meaning, definition and concept.
- Food toxicants: Meaning and types
- Food safety: Meaning and safe food handling practices.

Unit -II: Food Borne Illnesses and Food Adulterations

- Food borne illness (Salmonellosis, Staphylococcal poisoning, Perfringenes poisoning, Botulism): Agents, symptoms, and prevention.
- Food adulterants: Meaning and types
- Detection of adulterants in food stuffs

Unit- III: Food Laws and Food Standards

- General principles of food safety, voluntary standards and certification system- Bureau of Indian Standards (BIS), AGMARK.
- Food standardization and regulation agencies (National and International): Central Committee for Food Standards, International Organization for Standardization, Codex Alimentarius, Hazard Analysis Critical Control Point (HACCP).
- Food Evaluation- Meaning, methods of food evaluation (subjective and objective).

Unit-IV: Practical

1. Preparation of checklists for food safety measures for food handlers.
2. Market survey to study the different food safety standards.
3. Detection of adulterants in the following foods: Grains, dals, milk, black pepper, cinnamon, cloves, cumin seeds and honey.
4. Standardization of a food product using sensory evaluation.

Text Books:

- *Shubhangini A. Joshi; Nutrition and Dietetics, McGraw Hill Education (India) Private Limited.*

- *Srilakshmi. B; Food Science, New Age International (p) Limited, publishers.*
- *Swaminathan. M; Advanced Text Book on Food and Nutrition, Volume 1 and 2, The Bangalore printing and publishing co., LTD.*
- *Begum. M. R, A Textbook of Food, Nutrition & Dietetics, Sterling publications Pvt. Ltd.*

Reference Books:

- *Cynthia A. Roberts. The Food Safety Information Handbook. Oryx press.*
- *Mahan L K and Escott Stump S. Krause's Food & Nutrition Therapy, Saunders Elsevier.* □ *Raday, S. Food Science and Nutrition, Oxford University Press.*
- *Gupta, V. The Food Safety and Standards Act.*

E -Resources:

- <http://www.fao.org>
- <http://www.fssai.govt.in>
- <http://www.foodsafety.odisha.nic.in>
- <http://egyankosh.ac.in>

Model Questions:

1. State any 3 food borne illnesses. **(One sentence)**
2. Define food contamination. **(Maximum 50 words)**
3. Write short notes on staphylococcal food poisoning. **(Maximum 250 words)**
4. Define food toxicant. What are the different types of food toxicants? Mention the safe food handling practices. **(Maximum 800 words)**

Core XXII

Exceptional Children

Course Outcome:

- Students will be aware about the vulnerable sections of the society and develop attitudinal change.

- Students will be able to identify the talents of gifted children and focus on their talents. **Learning Outcome:**
- The students will understand about the exceptional children and their classifications.
- The students will gain an in-depth knowledge on socially handicapped children, emotionally disabled children and orthopedically challenged children.
- The students will gain knowledge about children with speech defects and gifted children.
- The students will be aware of the status and situations of differently abled children and adolescents in India.

Unit I: Introduction to Exceptional Children

- Meaning, definitions, and classifications of exceptional children.
- Gifted Children: Definition, Classification, Educational methods used, Parental awareness and development competency in bringing up these children.
- Children with Sensory Deficits, Deaf and Dumb, Visually Impaired- Definition, causes, teaching methods and rehabilitation of all.

Unit-II: Physical Challenges

- Mentally Challenged Children - Definition, causes, classification, education and rehabilitation.
- Socially Handicapped Children (Juvenile delinquents) - Meaning, causes, behavioral symptoms, preventive measures taken, rehabilitation.
- Orthopedically Challenged Children - Definition, causes, treatment, and rehabilitation.

Unit III: Speech and Emotional disturbed children and Welfare Programme

- Children with Speech Defects - Aphasic child, stammering, stuttering, articulatory defects, remedial measures, and speech therapy.
- Emotionally Disturbed Children – Common behavioral problems of children, Psychosis (Schizophrenia and Autism in children), Neurosis (Phobia, Obsession, and compulsion).
- Welfare programmes and policies for disabled children and adolescents in India.

Unit IV: Practical

1. Identify physically handicapped children (at least five) and prepare a report.
2. Prepare a case profile of an exceptional child (Age, Height, Weight, Physical defect, Problems, preferences, activities)
3. List out the developmental tasks of a physically challenged child.
4. Prepare a list of special materials and equipment required for exceptional child (Gifted/physically/emotional/sensory challenged).

Text Books:

- *Uday Shankar - Exceptional children. New Delhi: Sterling publishers.*
- *K C Panda - Exceptional Children.*
- *Mangal, S. K - Exceptional Children: An Introduction to special education. New Delhi: Prentice Hall of India.*
- *Kar, Chintamani - Exceptional Children: Their psychology and education. Sterling publishers Pvt. Ltd.*

Reference Books:

- *Hallahan. P, Daniel & Kauffman. M, James. Exceptional children; introduction to special education. Prentice-hall International (UK) Limited, London.*
- *Chopra, G. Early detection of disabilities and persons with disabilities in the community. New Delhi: Engage Publications.*
- *Dhawan, M. Education of Children with Special Needs. New Delhi: Isha Books.*

EResources:

- <https://niepid.nic.in/EXCEPTIONAL%20CHILDREN.pdf>.
- <https://egyankosh.ac.in/bitstream/123456789/23721/1/Unit-3.pdf>.
- https://www.sxccal.edu/wp-content/uploads/2023/08/MAEDCR33-Module-2_
- <https://www.hcpcollege.edu.in/sites/default/files/Exceptional%20children>.
- <https://www.gadoe.org/Curriculum-Instruction-and-Teaching%20Modules/>

Model Questions:

1. Define Exceptional Child? (Answer one sentence)

2. What is the classification of exceptional Children? (**Answer maximum 50 words**)
3. Define sensory deficit child and discuss the teaching methods? (**Answer maximum 250 words**)
4. Meaning of gifted children and discuss the classification and parental awareness and development competency in bringing up these children. (**Answer maximum 800 words**)

Core XXIII

Entrepreneurship Development

Course Outcome:

- Students will be motivated to become entrepreneurs.
- Students will learn the skills of an entrepreneur.

Learning Outcome:

- Understand the concept related to entrepreneurship.
- Able to learn the characteristics of an entrepreneur.
- Gain knowledge on different resource mobilization for enterprise and SWOT analysis.
- Learn about skills to become women entrepreneur.

Unit I: Entrepreneurship

- Definition, concept, and objective of entrepreneurship.
- Scope of entrepreneurship development in India.
- Types of enterprise –Merits and Demerits.

Unit II: The Entrepreneur

- Meaning, definition, characteristic of an entrepreneur.
- Factors Affecting Entrepreneurial Role – Education, awareness, culture, social condition, inhabitant.
- Profile of an entrepreneur and prospective of entrepreneurial behaviour

Unit III: Women Entrepreneur

- Meaning and definition of women entrepreneur.
- Characteristics of a women entrepreneur and problems faced by women entrepreneur.

- Association promoting women entrepreneur- World Association of Women Entrepreneur (WAVE), Women Entrepreneurs Wing NAYE, MSME, Krishi Vigyan Kendra (KVK).

Unit IV: Practical

- Write a case study report about an women entrepreneur.
- Prepare a small business plan.
- Prepare an album of entrepreneurs with their profiles.
- Write a report on an association promoting women entrepreneur within 1000 words.

Text Books:

- *G.L Ray, Extension Communication and Management*
- *V.K Dubey and Indira Bishnoi, Extension Education and Communication*
- *Vasant Desai, Entrepreneurial Development, Recent Edition*

Reference Books:

- *Meredith, G.G et el (1982) Practice of entrepreneurship.*
- *Patel, V.C (1987): Women Entrepreneurship- Developing New Entrepreneurs, Ahmedabad, EDIL*
- *S.S Khanna, Entrepreneurial Development, Recent edition.*

E-Resources:

- <https://www.vedantu.com/commerce/entrepreneurship-development-process>
- <https://leverageedu.com/blog/entrepreneurship-development/>
- <https://www.shiksha.com/online-courses/articles/entrepreneurship-development/>
- <https://wadhwanifoundation.org/what-is-entrepreneurship-development/>

Model Questions:

1. The word entrepreneur has come from _____.
(One word)
2. What is entrepreneurship? (Maximum 50 words)
3. Discuss about the scope of entrepreneurship in India?
(Maximum 250 words)
4. Define women entrepreneur and discuss the characteristics and problems faced by women entrepreneur?

(Maximum 800 words)