

SRI VENKATESWARA UNIVERSITY - TIRUPATI
B.S.c., (Honours) in **HOME SCIENCE** (Major)

III - SEMESTER

(W.E.F. Academic Year 2024-25)

CHOICE BASED CREDIT SYSTEM (C.B.C.S)

Course 05: FUNDAMENTALS OF FOOD SCIENCE & NUTRITION

Credits -3

Outcomes of the course

At the end of the course the student will be able to demonstrate the following:

A) Remembers and explains in a systemic way

- Understanding the concepts of nutrition and food and its relation to health.
- Acquiring knowledge about macro and micro nutrients and their functions.
- Knowing the consequences of deficiency of taking nutrients.
- Understanding importance of non-nutrients in human nutrition

B) Understands and Uses

- Planning recipes by selecting appropriate foods based on the macro and micro nutrient composition.
- Selection of foods based on the nutrient composition for healthy and disease people.

C) Critically explains, judges and solves

- Planning and calculating nutritive values for the foods and recipes.
- Identification of signs and symptoms of different nutrient disorders.
- Practical knowledge on availability of seasonal and other foods by doing market survey.

- Listing out the common foods and their names in scientific and local languages.

D) Working in out of prescribed area under a co-curricular activity

- Selection of foods based on seasonal availability and planning recipes on the nutrient composition to healthy and diseased conditions.

E) Practical skills

- Market survey on different foods available and learning local and scientific names.
- Learn to identify different food samples and to know their nutrient composition.
- Planning of recipes according to nutrient components.

THEORY:

UNIT-I Macro Nutrients

- Macro Nutrients – Classification, functions, digestion, absorption, dietary sources, RDA, Clinical manifestations of deficiency and excess and storage of the following in the body.
 - Carbohydrates
 - Lipids
 - Proteins

UNIT – II Micro nutrients- Vitamins & Minerals

- Vitamins – Classification, functions , dietary sources, RDA, clinical manifestations of deficiency and excess of the following
 - Fat soluble vitamins – A, D, E and K
 - Water soluble vitamins – B Complex Vitamins - Thiamine, Riboflavin, Niacin, Pyridoxine, Folic acid, Cyanocobalamin and Vitamin C.
- Minerals – classification, functions ,dietary sources, RDA, clinical manifestations of deficiency and excess of the following
 - Macro minerals – Calcium, Phosphorous, Magnesium, Sodium and Potassium
 - Micro minerals or Trace elements – Iron, Iodine, Fluorine and Zinc

UNIT - III Plant Foods

- Cereals and Millets–Structure, Composition and nutritive value, processing, selection, and use in cookery
- Pulses and Legumes– Composition and nutritive value, processing, selection, and use in cookery, Nuts and oil seeds– Nutritive value , use in cookery
- Vegetables and Fruits– Classification, Selection, Nutritional aspects, Pigments, Enzymatic and non-enzymatic browning.
- Spices and condiments – Nutritive value, use in cookery

UNIT - IV Animal Foods

- Milk and milk Products - nutritive value, use in cookery
- Egg -structure, nutritive value, methods to assess quality of eggs, changes during storage and use in cookery
- Meat, Poultry, Fish – Nutritive value, use in cooker

UNIT – V Food Processing

- Food Preservation – Methods, high temperature, low temperature, removal of moisture, irradiation and preservatives
- Food additives– Types and their role in food processing, Nutrient Enrichment– Germination, fermentation, fortification etc.
- Food Spoilage – Microorganisms causing spoilage – Factors responsible for spoilage and changes brought about in food by microorganisms.

PRACTICAL

Credits -1

1. List out the common foods and to learn their names in Telugu, English, Hindi and Urdu.
2. Learn to identify the different food samples and to know their nutrient composition.
3. Standardization of weights and measures of various food items.
4. Cereals, pulse and vegetable preparations and calculation of nutritive values of recipe.
5. Milk, meat, egg preparations and calculation of nutritive values of recipes.
6. Drying of foods using different methods ,
7. Fermentation process of foods.
8. Germination of cereals and legumes processing techniques.

REFERENCES

1. Bamji MS, Krishnaswamy K, Brahmam, (2016) Textbook of Human Nutrition, 4th edition. Oxford and IBH Publishing Co. Pvt. Ltd.
2. Longvah, T., Ananthan, R., Bhaskarachary, K. and Venkaiah, K. (2017). Indian Food Composition Tables, Published by NIN
3. Raheena Begum, (2013). Textbook of Food, Nutrition and Dietetics, 3rd edition, Sterling Publishers Pvt. Ltd.
4. RavinderChada and PulkitMathur, (2015). Nutrition – A Life Cycle Approach, 1st edition, Orient Black Swan Private Limited
5. Shubhangini A. Joshi, (2002). Nutrition and Dietetics, 2nd edition, Tata McGraw-Hill Publishing Company Ltd.
6. Srilakshmi, B., (2018). Nutrition Science, 6th edition, New Age International Publishers.
7. Swaminadhan S, (2005). Advanced Text book on foods & nutrition, Vol. I&II (2nd revised and enlarged) Bappco.
8. VijayaKhader, (2000). Food, nutrition & health, Kalyani Publishers.

CO-CURRICULAR ACTIVITIES

1. Student seminars on different nutrients.
2. Preparation of posters, charts, flashcards etc. related to different nutrients – Functions, RDA dietary sources, nutrient content of foods and deficiency symptoms.
3. Collections of food samples rich in particular vitamins and minerals like calcium, iron etc.
4. Visit to food stores, vegetable and fruit markets to study locally available foods.
5. Study projects to collect the data from people. Eg. Foods avoided or given in specific conditions.
6. Celebration of Important Days (National and International)
 - World's Breast Feeding Week(August 1st -7th)
 - Nutrition Week – September 1st - 7th
 - Nutrition Month – September month
 - Hand Washing Day – October 15th
 - World Food Day – October 16th

SRI VENKATESWARA UNIVERSITY - TIRUPATI
B.S.c., (Honours) in **HOME SCIENCE (Major/Minor)**

III - SEMESTER

(W.E.F. Academic Year 2024-25)

CHOICE BASED CREDIT SYSTEM (C.B.C.S)

Course 05: FUNDAMENTALS OF FOOD SCIENCE & NUTRITION

Model Question Paper

Time: 3 hrs.

Max. Marks: 75

PART – A

Answer any FIVE questions. Each question carries 5 Marks (5x5 = 25 Marks)

1. Classify carbohydrates.
2. What are the functions of food?
3. Draw the structure of a cereal grain and explain.
4. Write about convenience foods.
5. Define food spoilage. What are the changes occur in food by microorganisms.
6. What are the functions of lipids?
7. Discuss the functions of Vitamin B1- Thiamine in the body.
8. Write about flourosis.

PART– B

Answer FIVE questions. Each Question carries 10 Marks (5x10 = 50 Marks)

9. a) Discuss the functions of Proteins.

(OR)

- b) Write about the classification of Lipids.

10. a) Write about functions, deficiency and dietary sources of vitamin-A.

(OR)

- b) Write about the functions, deficiency and dietary sources of vitamin-C.

11. a) Discuss various fermented and non-fermented milk products. (OR)

b) Explain the nutritive value of meat and fish.

12. a) Define food preservation. Write in detail about any three methods of food preservation. (OR)

b) List out food additive and discuss their role in food processing.

13. a) What are Phytochemicals? Explain their beneficial effects on Health. (OR)

b) Define water balance. Explain the regulation of water balance in the body

SRI VENKATESWARA UNIVERSITY - TIRUPATI

B.S.c., (Honours) in **HOME SCIENCE (Major)**

III SEMESTER

(W.E.F. Academic Year 2024-25)

CHOICE BASED CREDIT SYSTEM (C.B.C.S)

Course 06: TEXTILES AND CLOTHING

Credits -3

Outcomes of the course

The students will be able to

A. Remember and explain in a systematic way:

- The importance of the textiles in human life and also the textile terminology and types of fibres.
- Use of Textile fibres in various fields.

B. Understands and Uses

- Identification of different fibres like plant fibres, animal fibres based on properties.
- Aims knowledge on manufacturing of different textile fibers.
- Understands the method of Spinning and process of yarn construction.

C. Critically explains, judges

- Critical differences between cellulose, protein and man-made fibres.
- Judge the differences between simple and novelty yarns.

D. Working in out of prescribed areas under co-curricular activity

- Collection of different fabrics and gain knowledge about their seasonal usage.

E. Practical Skills

- Identification of different textile fibres using microscopic, burning tests.
- Identification of yarns and their use in textiles.

THEORY

Unit-I Introduction to Textiles

- . Introduction to textiles - Importance of study of textiles.
General properties of a Textile Fiber - Primary and Secondary.
- . Classification of textile fibers – Natural and manmade; cellulose, protein, synthetic and mineral

Unit-II Natural Fibers

- Cellulose fibres – Cotton and Linen - Production, properties, use and care
Minor cellulose fibres
- Protein fibers – Silk and wool - Production, properties, use and care.
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Unit-III Synthetic Fiber

- Nylon – Production, properties use and care
- Polyester – Production, properties use and care
- Acrylic fibres – Production, properties use and care

Unit – IV Mineral Fibers

- Mineral fibres – Fibre glass and Asbestos Production, properties and Uses
Mixtures and Blends – Importance and advantages of Blending Blends of
- Natural cellulose fibers, protein fibers and manmade fibers.
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Unit – V Yarns

- Yarns – Types of Yarns - Staple and Filament
- Methods of spinning – Mechanical process
- Methods of spinning – Chemical process - Wet , Dry
- Classification of yarns – simple, novelty and textured yarns

PRACTICAL Credits -1

1. Identification and collection of Textile Fibres
 - Plant Fibres – Cotton, Linen, Jute
 - Animal Fibres – Silk, Wool
 - Synthetic Fibres – Polyester, Nylon, Acrylic
2. Identification and collection of Yarns
 - Simple Yarns
 - Novelty Yarns
3. Tests to identify textile fibers

Texture

Microscopic examination and

Burning test.

REFERENCES

1. Deepali Rastogi and Sheetal Chopra (2017). Textile Science, 1st edition, Orient Black Swan Pvt. Ltd.
2. Kanwar Varinder Pal Singh. (2014). Introduction to Textiles, 1st edition, Kalyani Publishers.
3. Seema Sekhri. (2017). Text book of Fabric – Fundamentals to Finishing, 2nd edition, PHI Learning Pvt. Ltd.
4. Sushma Gupta, Neeru Garg, Renu Saini. (2018). Text book of clothing, textiles and laundry, 8th edition, Kalyani publishers.
5. Vastala, R. (2013). Text book of Textiles and Clothing, 1st edition, Published by ICAR.

CO- CURRICULAR ACTIVITIES

1. Seminar/Assignment/Quiz/Group Discussion
2. Use of ICT in Class reports and Seminars.
3. Project Work
4. Construction of garments and their exhibition.
5. Visit to nearby weaving, dyeing units and printing Centres.

SRI VENKATESWARA UNIVERSITY - TIRUPATI
B.S.c., (Honours) in **HOME SCIENCE (Major)**

FIRST YEAR – III SEMESTER
(W.E.F. Academic Year 2024-25)

CHOICE BASED CREDIT SYSTEM (C.B.C.S)

Course 06: TEXTILES AND CLOTHING

Model Question Paper

Time: 3 hrs

Max Marks: 75

PART - A

Answer any FIVE questions. Each question carries 5 Marks.

(5x5=25 Marks)

1. Write about the importance of Textiles?
2. Explain the microscopic structure of cotton fibre.
3. Compare woollen and worsted wool.
4. What is retting? Explain the methods of retting.
5. Write about simple yarns.
6. Name minor cellulose fibres. Write a short note on Jute.
7. Explain the production of Polyester.
8. Write about Sericulture?

PART - B

Answer FIVE questions. Each question carries 10 Marks.

(5x10=50 Marks)

9. a) Define textile fibre. Discuss the general properties of a textile fibre. (OR)
b) Write in detail about the classification of textile fibres.

10. a) Discuss the physical and chemical properties of cotton fibre.

(OR)

Write in detail about the production of wool.

11. a) Explain the production of nylon and discuss its physical properties. (OR)

a) Discuss the physical and chemical properties of acrylic fibre.

b) a) Write in detail about the production and uses of fibre glass.

(OR)

b) What are blends and mixtures? Give their importance. Write about the blends available in the market.

c) a) What is spinning? Explain the processes of mechanical spinning.

(OR)

b) What are novelty yarns? Explain different novelty yarns.

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III - SEMESTER

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CHOICE BASED CREDIT SYSTEM (C.B.C.S)

Course 07- EARLY CHILDHOOD EDUCATION

Credits -3

Outcomes of the course

At the end of the course the student will be able to demonstrate the following:

A) Remembers and explains in a systemic way

- About the importance of a early childhood education

B) Understands and Uses

- Physical structure and facilities of an ECE centre

C) Critically explains, judges and solves

- The quality of an ideal pre-school teacher.

D) Working in out of prescribed area under a co-curricular activity

- Plan a programme for preschool children

E) Practical skills

- Conduct PTA meetings.

THEORY

UNIT-I Early Childhood Education - Significance

- Significance of pre-school education – Aims and objectives of Pre-school education
- Contributions of Educators to ECE
 - Indian contributors – Mahatma Gandhi, Rabindranath Tagore, Tarabai Modak, Jijubai Badeka
 - International – Friedrich Froebel, Maria Montessori, John Dewey and Pestalozzi.

UNIT – II Stakeholders of ECE

- Growth of ECE in five year plans – Role of Anganwadi in ICDS scheme
- Pre-school staff and other personnel – the teacher, personal and professional qualities
- Functions of other personnel
- Parent Involvement and participation – Home and school interaction – PTA meetings, casual meetings.

UNIT - III Organization of Pre-schools

- Physical facilities – Building, Location, space allotment – indoor and outdoor space
- Pre-school Equipment - Principles underlying in selection of equipment for various development – indoor and outdoor equipment.

UNIT – IV Curriculum

- A days programme in nursery school- Importance of different activities in a day's programme
- Language experiences – Informal talk, Storytelling and Music
- Importance of Science experience, readiness activities and creative activities in ECE.

UNIT – V Records and Supervision

- Records – types of records, purpose and maintenance of records.
- Supervision – Goals, purpose of supervision – qualities of a supervision

PRACTICAL

Credits -1

1. Observation and recording of a day's programme in a pre-school/Anganwadi centre,
2. Observation of qualities of a pre-school teacher in a pre-school/Anganwadi centre
3. Planning a day's programme for pre-school children
4. Preparation of stories for pre-school children
5. Preparation of rhymes for pre-school children
6. Preparation of readiness kit and creative activities for pre-school children

REFERENCES

1. Pankajam, G. 1994, 'PreSchool Education Philosophy and Practice', The Indian publications, Ambala Cantt
2. Aggarwal, J.C. 1983 Methods and materials of nursery education, published by DOABA house, Delhi.
3. MujibulHasanSiddiqui 2004-early childhood education, APH Publishing Corporation, New Delhi.
4. Crosser, S. (2005). What Do We Know About Early Childhood Education?", Research based Practice (pp. 154-165). U.S.A: THOMSON Delmar Learning.
5. Dorothy, J. S. A., & Dorsey, G.(2003). Developing and Administering", A child care center, 5th edition (pp. 361-374). U.S.A: Thomson Delmar Learning.
6. Billman., & Sherman, J.A. (1996). Observation and Participation in Early Childhood settings, A Practicum Guide (pp.13-39). U.S.A: Allyn & Bacon.

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III - SEMESTER

(W.E.F. Academic Year 2024-25)

CHOICE BASED CREDIT SYSTEM (C.B.C.S)

Course 07- EARLY CHILDHOOD EDUCATION

Model Question Paper

Time:3 Hrs.

Max. Marks:75

PART - A

I. Answer any five of the following questions (5 X 5 = 25M)

1. What is Need and Significance of pre-school education?
2. Write a note on Minimum requirement of Indoor and outdoor space
3. Why Safe drinking water and Sanitary facilities are important in preschools
4. What is the role of anganwadi in ICDS
5. Write short notes contribution of Tarabai Modak
6. List out the child related records maintained in preschools
7. Write on Principles of planning activities in preschool
8. Write a short note on Long-term programme planning

Part - B

II. Answer either A or B from each question (10 X 5 = 50M)

9. a. Explain the aim and objectives of pre-school education.
OR
b. Enumerate on the contribution of Froebel
10. a. Discuss on criteria for selection of Location, Site and Building for preschools
Or
b. Explain about Principles in selection of play equipment and maintenance
11. a. Enumerate on Qualities of an Ideal pre-school teacher
Or
b. what is PTA meeting? Discuss the role of home and school interaction.
- 12.a. Explain the Need, Importance in Maintenance of records and registers
in preschools
Or
b. Describe the goals and purpose of supervision?
13. a. Write and plan a days programme in nursery school.
Or

b. Write different language experiences and their importance in ECE..

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III- SEMESTER

(W.E.F. Academic Year 2024-25)

CHOICE BASED CREDIT SYSTEM (C.B.C.S)

Course 08 –RESOURCE MANAGEMENT & HOUSEHOLD ECONOMICS

Credits -3

Outcomes of the course

At the end of the course the student will be able to demonstrate the following:

A) Remembers and explains in a systemic way

The terms ‘resources’ and ‘management’ & Familiarize with the types of resources, available and their characteristics.

B) Understands and Uses

The Process of Management – Planning, supervising, organizing and evaluation.

C) Critically explains, judges and solves

The Management process of different resources – Time, Money and Energy.

D) Working in out of prescribed area under a co-curricular activity

Acquire Work simplification techniques in family activity management.

E) Practical skills

Observing Budget Plans of families from different income groups-Low, Middle and High income.

THEORY

Unit-I Home Management

- Home management – Meaning, definition and purpose
- Steps in management process – Planning, Organizing , Controlling and Evaluation – their importance

- Home maker –Definition , Qualities of a good home maker

Unit - II Motivating factors of Management

- Values – Meaning, importance and types of values
- Goals – Types and characteristics of goals
- Standards – Classification and factors affecting standard
- Inter relation between values, Goals and standards
- Decision Making – Definition and role of decision making in management
- Steps in decision making – Types of decisions.

Unit-III Family Resource Management

- Family Resources – Classification – Human and Non-human Resources; characteristics
- Factors affecting the management of resources
- Guidelines for the use of resources

Unit-IV Time and Energy Management

- Time – Nature and significance; Tools in time management – peak loads, work curves
- Energy Management – Economic utilization of energy, Work Simplification techniques.
- Fatigue –types and its management.
- Work simplification – principles of work simplification and techniques.

Unit-V Money Management

12. Money Management –Family income, Sources and types
13. Supplementing the family income
14. Budget – meaning and advantages of budgeting; Steps in making budget for a family
15. Engel's law of consumption; Factors affecting the budget;
16. Household accounts – Importance and account keeping systems.

17. Savings – Need and reasons for saving; Types and methods of saving – post office, LIC, Unit Trust, Chit funds, Banks etc.

PRACTICAL

Credits -1

1. Identifying of human and non-human resources
2. Making decision by analyzing the problem by following the decision making process.
3. Time plans
 - i) Students on a working day and holiday
 - ii) Time plan for working women on a working day and holiday
 - iii) Time plan for house wife
 1. Budget Plans for different income groups
 - i) Low income group
 - ii) Middle income group
 - a) High income group
4. Collect information on savings in different families.

REFERENCES

1. Premavathy Seetharaman and ParveenPannu (2005), “Interior Design and Decoration”, 1st edition, CBS Publishers.
2. Sonia Batra & Preeti Mehra “An Introduction to Family Resource Management” 1st edition CBS Publishers & Distributors.
3. Premlata Mullick.(2016). Textbook of Home Science, 4th edition, 2016, Kalyani Publishers.
4. Sushma Gupta, Neeru Garg. (2012). Text book of Family Resource Management, Hygiene & Physiology, 9th edition, Kalyani Publishers.
5. Varghese, M.A. and N.N. (2009). Home Management, New Age International Pvt. Ltd.

VI. Co-curricular Activities:

a). Mandatory: (Training of students by teacher on field related skills: 15 hrs)

For Teacher: Training of students by teacher in laboratory and field for a total of 15 hours on visit to Bank or Post Office or private saving companies.

For Student:

1. Observing & knowing the management of different resources.
2. Making a graph to identify the management of various resources by different income groups.
3. Max marks for Field Work Report: 05.
4. Suggested Format for Field work: *Title page, student details, content page, introduction, work done, findings, conclusions and acknowledgements.*
5. Unit tests (IE).

b) Suggested Co-Curricular Activities

1. Training of students regarding Time, Energy & Money management.
2. Assignments, Seminars, Group discussions, Quiz, Debates etc. (on related topics).
3. Drawing graphs and collecting data about various saving schemes.
4. Video show and films on effective management of resources.
5. Preparation of resource files by collecting new and innovative ideas for management of resources.
7. Invited lectures and presentations on related topics by subject experts.

III SEMESTER

**Course 08 –RESOURCE MANAGEMENT & HOUSEHOLD
ECONOMICS**

Model Question Paper

Time: 3 Hrs.

Max. Marks: 75

Part – A

I. Answer any five of the following questions

(5 X 5 = 25 M)

1. Importance of Management in Home
2. How Values, Goals and Standards are interrelated?
3. Define and classify resources
4. Explain nature and significance of time
5. Importance of Savings
6. Types of decisions
7. Discuss psychological fatigue.
8. Types of Family Income

Part - B

II. Answer any Five of the following questions

(10x5=50M)

9. a). List out qualities of good homemaker
(OR)
b). Explain briefly the steps in Home management
10. a). What are the factors which affect choice of
Standards (OR)
b). Write briefly about the steps in Decision
Making.
11. a). “Management Process can be applied to all resources” Explain it with examples.
(OR)
b). Explain the factors that affect the use of
resources
12. a). Write about tools in Time Management
(OR)
b). “Work simplification is a way to save time and energy”. Discuss
13. a). Explain the steps in making budget for a family.
(OR)
b). Discuss different types of saving.