Placed at the meeting of
Academic Council
held on 26.03.2018

APPENDIX - AP

MADURAI KAMARAJ UNIVERSITY

(University with Potential for Excellence)

B.Sc. Home Science

(Nutrition, Food Service Management and Dietetics with Computer Application)

CHOICE BASED CREDIT SYSTEM
REVISED SYLLABUS

(With effect from 2018-2019)

REGULATIONS

1. Introduction of the programme:

Home Science is a multifarious discipline comprising of five major areas namely:

- Food and Nutrition
- Textiles and Clothing
- Family Resource Management
- Human Development
- Extension Education

Home Science aims at the holistic development of the individual that equips the students to fetch jobs in various fields. The possible avenues for a Home Scientist are:

- Dietitians in hospitals
- Nutritionists in health centres
- Diet counselors in fitness centres
- Child development project officers
- Sanitary inspectors
- Designers in textile industries
- Supervisors in the cutting and dressmaking sections of garment industries
- Floor supervisors in corporate hospitals
- Block Development Officers
- Colour consultants
- Front office managers
- House keepers in hotel industry

2. Eligibility for Admission

2.1 Duration of the Course : 3 Years

2.2. Medium of Instructions : English

Candidates should have passed the Higher Secondary Examination conducted by the Board of Higher Secondary Education, Tamilnadu or any other Examination accepted by Academic Council with any science group in Higher Secondary Examinations.

3. OBJECTIVES OF THE PROGRAM

The UG programme in Home Science aims at imparting necessary skills to students to effectively play the dual role of home makers and bread winners. The course will enable the students to

- Gain basic knowledge in the major areas of Home Science namely Food and Nutrition, Textiles and Clothing, Human Development, Family Resource Management and Extension Education.
- Have hands-on experience in Food preparation and Processing, Biochemical Analysis, Meal planning, Therapeutic Nutrition, Preschool teaching, Creche Management, Interior Decoration and Lab to Land activities.
- Get practical exposure from a month long Dietetic Internship.
- To develop entrepreneurs and entrepreneurship skill in various Govt. and non Govt

4. OUTCOME OF THE PROGRAM

On completion of the above said UG programmes, the students are expected to be competent in the following career avenues:

- Dietitian
- CDPO
- Front office managers
- Interior Decorators and Colour Consultants
- Supervisors in garment units and export houses
- Food related entrepreneurial ventures
- Field Assistants in NGOs
- Floor mangers in corporate hospitals

In addition to the career opportunities, the students have scope for higher studies in all 5 specializations of Home Science

5, 6 and 7. Core Subject Papers, Subject Elective Papers, Non subject Elective Papers

SEMESTER	PAPER	TITLE OF THE PAPER	HRS OF INSTRUCTION		TOTAL HRS	CREDITS	MAX MARKS		TOTAL MARKS
			THEORY	PRAC			THEORY	PRAC	
I	LANGUAGE	TAMIL	6	-	6	3	100	-	100
	LANGUAGE	ENGLISH	6		6	3	100	-	100
	CORE 1	BASICS OF NUTRITION	6		6	4	100	-	100
	ALLIED 1A	FUNDAMENTALS OF COMPUTER & MS OFFICE	4	2	6	4	100	-	100
	SBS 1	FRM 1	2	-	2	2	100	-	100

	SBS 2	WOMEN ENTREPRENEURSHIP	2	-	2	2	100	-	100
	NME 1	NUTRITION & HEALTH	2	-	2	2	100	-	100
			0						
II	LANGUAGE	TAMIL	6	-	6	3	100	-	100
	LANGUAGE	ENGLISH	6	-	6	3	100	-	100
	CORE 2	FOOD SCIENCE	4	-	4	4	100	-	100
	CORE 3	FOOD SCIENCE PRACTICAL	-	2	2	2		100	100
	ALLIED 1B	INTERNET & WEB DESIGNING	4	-	4	4	100	-	100
	ALLIED 1C	WEB DESIGNING PRACTICAL	-	2		1		100	100
	SBS 3	ENTREPRENEURSHIP SKILLS	-	2		2		100	100
	SBS 4	FRM 2	2	-	2	2	100		100
	NME 2	WOMEN & CHILD HEALTH	2	-	2	2	100		100
			0						
III	LANGUAGE	TAMIL	6	-	6	3	100	-	100
	LANGUAGE	ENGLISH	6	-	6	3	100	-	100
	CORE 4	FOOD MICROBIOLOGY	4	2	6	4	100	-	100
	ALLIED 1D	MULTI MEDIA	4	2	6	4	100	-	100
	ALLIED IIA	HUMAN PHYSIOLOGY	4	2	6	4	100	-	100
IV	LANGUAGE	TAMIL	6	-	6	3	100	-	100
	LANGUAGE	ENGLISH	6	-	6	3	100	-	100
	CORE 5	FOOD SERVICE LAYOUT, EQUIPMENT & QUANTITY COOKERY	4	-	4	4	100	-	100
	CORE 6	FOOD SERVICE LAYOUT, EQUIPMENT & QUANTITY COOKERY PRACTICAL	-	2		2	-	100	100
	ALLIED 1 E	NUTRITIONAL BIOCHEMISTRY	4	-	4	4	100	-	100
	ALLIED I F	NUTRITIONAL BIOCHEMISTRY PRACTICAL	-	2	2	1	-	100	100
	ALLIED II B	HUMAN DEVELOPMENT	4	-	4	4	100	-	100
	ALLIED II C	HUMAN DEVELOPMENT PRACTICAL	-	2	2	1	-	100	100
			0						
V	CORE 7	FRONT OFFICE MANAGEMENT & HOUSE KEEPING	4	4		4+2	100	-	100
	CORE 8	NUTRITION THROUGH LIFCYCLE	4	2	6	4+2	100	-	100
	CORE 9	FOOD SERVICE MANAGEMENT	6	-	6	4	100	-	100
	ALLIED II D	EXTENSION EDUCATION	4	2	6	4+2	100	-	100
	EVS	EVS	2	-	2	2	100	-	100
	SBS 5	CRECHE MANAGEMENT	2	-	2	2	100	-	100

VI	CORE 10	FOOD PRESERVATION & BAKERY	4	-	2	4	100	-	100
	CORE 11	FOOD PRESERVATION & BAKERY PRACTICAL	-	2	2	2	-	100	100
	CORE 12	DIETETICS	4	-	4	4	100	-	100
	CORE 13	DIETETICS PRACTICAL	-	2	2	2	-	100	100
	CORE 14	COMMUNITY NUTRITION	4	-	4	4	100	-	100
	CORE 15	DIETETIC INTERNSHIP	-	4	4	3	100	-	100
	ALLIED II E	C' PROGRAMMING	4	-	4	4	100	-	100
	ALLIED II F	C' PROGRAMMING PRACTICAL	-	2	2	1	-	100	100
		VALUE EDUCATION	2	-	2	2	100	-	100
	SBS 6	FUNDAMENTALS OF TEXTILES & CLOTHING	2	-	2	2	100	-	100
		EXTENSION ACTIVITY	0	1		1			
			144	37	0	140			

8. UNITISATION :

Each subject is segregated into five units with each unit consisting of equal distribution of major concepts.

9. PATTERN OF SEMESTER SYSTEM

Scheme for internal Assessment

The pattern of internal assessment will be as follows :

The pattern for internal valuation may be

1.Test - -10 marks, average of two tests

2.Group Discussion / Seminar / Quiz - 5 marks

3.Assignments : -5 marks

4.Peer –Team –Teaching/Learning - 5 marks

Total - **25 marks**

Theory

Internal : 25 marks

External :75 marks

Practicals

Internal :40 marks

External :60 marks

11 and 12. EXTERNAL EXAM

External Exam Question Paper Pattern

Title of the paper

Sub code

Time : 3 Hours Max Marks : 75

Section - A **(10 x1=10)**

Question No. I to 10 (Multiple choice)

1. Two questions from each unit.
2. Four Choices in each questions.
3. No 'none of these' choice

Section - B **(5 x7=35)**

Answer all questions choosing either t a) or (b) Answers not exceeding two pages.

(One question from each unit) 11 (a) or 11 (b)

12 (a) or 12 (b)

13 (a) or 13 (b)

14 (a) or 14 (b)

15 (a) or 15 (b)

Section - C **(3 x10=30)**

Answer not exceeding four pages

Answer any three out of five (one question from each Unit) Questions 16 – 20

13. Scheme of evaluation

To be given by the External Examiner

14. Passing Minimum

PG – 50%

14.1. Classification

Sl. No	Range of CCPA	Class
1	40 & above but below 50	III
2	50 & above but below 60	II
3	60 & Above	I

16. Teaching Methodology

- Blackboard – Chalk & Talk
- Powerpoint presentations
- Animations & videos
- Students' seminars.

- Self study portions regularly monitored by way of group discussions & presentations.
- LCD
- OHP
- Demonstrations
- Role play

17. Text Books

Given for each paper in the References

18. Reference Books

Given at the end of the syllabus for each paper.

19. Retotalling& Revaluation Provision

As per the norms of the University.

20. Transitory provision

UG syllabus revision once in 3 years and afterwards 3 years under transitory provision.

21. Related websites:

Provided for each paper.

B.Sc. HOME SCIENCE (NUTRITION, FOOD SERVICE MANAGEMENT AND DIETETICS WITH COMPUTER APPLICATIONS)
B.Sc. H.Sc (BRANCH XA)

SEMESTER	PAPER	TITLE OF THE PAPER	HRS OF INSTRUCTION		TOTAL HRS	CREDITS	MAX MARKS		TOTAL MARKS
			THEORY	PRAC			THEORY	PRAC	
I	LANGUAGE	TAMIL	6	-	6	3	100	-	100
	LANGUAGE	ENGLISH	6		6	3	100	-	100
	CORE 1	BASICS OF NUTRITION	6		6	4	100	-	100
	ALLIED 1A	FUNDAMENTALS OF COMPUTER & MS OFFICE	4	2	6	4	100	-	100
	SBS 1	FRM 1	2	-	2	2	100	-	100
	SBS 2	WOMEN ENTREPRENEURSHIP	2	-	2	2	100	-	100
	NME 1	NUTRITION & HEALTH	2	-	2	2	100	-	100
			0						
II	LANGUAGE	TAMIL	6	-	6	3	100	-	100
	LANGUAGE	ENGLISH	6	-	6	3	100	-	100
	CORE 2	FOOD SCIENCE	4	-	4	4	100	-	100
	CORE 3	FOOD SCIENCE PRACTICAL	-	2	2	2		100	100

	ALLIED 1B	INTERNET & WEB DESIGNING	4	-	4	4	100	-	100
	ALLIED 1C	WEB DESIGNING PRACTICAL	-	2		1		100	100
	SBS 3	ENTREPRENEURSHIP SKILLS	-	2		2		100	100
	SBS 4	FRM 2	2	-	2	2	100		100
	NME 2	WOMEN & CHILD HEALTH	2	-	2	2	100		100
			0						
III	LANGUAGE	TAMIL	6	-	6	3	100	-	100
	LANGUAGE	ENGLISH	6	-	6	3	100	-	100
	CORE 4	FOOD MICROBIOLOGY	4	2	6	4	100	-	100
	ALLIED 1D	MULTI MEDIA	4	2	6	4	100	-	100
	ALLIED IIA	HUMAN PHYSIOLOGY	4	2	6	4	100	-	100
IV	LANGUAGE	TAMIL	6	-	6	3	100	-	100
	LANGUAGE	ENGLISH	6	-	6	3	100	-	100
	CORE 5	FOOD SERVICE LAYOUT, EQUIPMENT & QUANTITY COOKERY	4	-	4	4	100	-	100
	CORE 6	FOOD SERVICE LAYOUT, EQUIPMENT & QUANTITY COOKERY PRACTICAL	-	2		2	-	100	100
	ALLIED 1 E	NUTRITIONAL BIOCHEMISTRY	4	-	4	4	100	-	100
	ALLIED I F	NUTRITIONAL BIOCHEMISTRY PRACTICAL	-	2	2	1	-	100	100
	ALLIED II B	HUMAN DEVELOPMENT	4	-	4	4	100	-	100
	ALLIED II C	HUMAN DEVELOPMENT PRACTICAL	-	2	2	1	-	100	100
			0						
V	CORE 7	FRONT OFFICE MANAGEMENT & HOUSE KEEPING	4	4		4+2	100	-	100
	CORE 8	NUTRITION THROUGH LIFCYCLE	4	2	6	4+2	100	-	100
	CORE 9	FOOD SERVICE MANAGEMENT	6	-	6	4	100	-	100
	ALLIED II D	EXTENSION EDUCATION	4	2	6	4+2	100	-	100
	EVS	EVS	2	-	2	2	100	-	100
	SBS 5	CRECHE MANAGEMENT	2	-	2	2	100	-	100
VI	CORE 10	FOOD PRESERVATION & BAKERY	4	-	2	4	100	-	100
	CORE 11	FOOD PRESERVATION & BAKERY PRACTICAL	-	2	2	2	-	100	100
	CORE 12	DIETETICS	4	-	4	4	100	-	100
	CORE 13	DIETETICS PRACTICAL	-	2	2	2	-	100	100
	CORE 14	COMMUNITY NUTRITION	4	-	4	4	100	-	100
	CORE 15	DIETETIC INTERNSHIP	-	4	4	3	100	-	100
	ALLIED II E	C' PROGRAMMING	4	-	4	4	100	-	100

	ALLIED II F	C' PROGRAMMING PRACTICAL	-	2	2	1	-	100	100
		VALUE EDUCATION	2	-	2	2	100	-	100
	SBS 6	FUNDAMENTALS OF TEXTILES & CLOTHING	2	-	2	2	100	-	100
		EXTENSION ACTIVITY	0	1		1			
			144	37	0	140			

CHOICE BASED CREDIT SYSTEM

SEMESTER	SUBJECTS							TOTAL HOURS
I	T(6)	E(6)	CS(5)	CS(5)	AS(6)	NME(2)		30
II	T(6)	E(6)	CS(5)	CS(5)	AS(6)	NME(2)	-	30
III	T(6)	E(6)	CS(5)	CS(5)	AS(6)	SBS(2)	-	30
IV	T(6)	E(6)	CS(5)	CS(5)	AS(6)	ENVIRONMENT(2)	-	30
V	CS(5)	CS(5)	CS(5)	CS(5)	ES(6)	SBS(2)	SBS (2)	30
VI	CS(5)	CS(5)	ES(6)	ES(6)	VE(2)	SBS(2)	SBS(2) SBS(2)	30

T	Tamil
E	English
CS	Core
ES	Elective
AS	Allied
SBS	Skill Based
VE	Value Education
NME	Non Major Elective
(n)	number hours

QUESTION PAPER PATTERN

DISTRIBUTION OF MARKS BETWEEN THEORY AND INTERNAL ASSESSMENT

THEORY EXAM External : 75 MarksInternal:25 Marks
PRACTICALS EXAM External : 60 MarksInternal: 40 Marks

The existing pattern of question paper will be as follows :

Time : 3 Hours Max Marks : 75

Section - A **(10 x1=10)**

Question No. I to 10 (Multiple choice)

4. Two questions from each unit.
5. Four Choices in each questions.
6. No 'none of these' choice

Section - B **(5 x7=35)**

Answer all questions choosing either t a) or (b)
Answers not exceeding two pages.
(One question from each unit) 11 (a) or 11 (b)
12 (a) or 12 (b)
13 (a) or 13 (b)
14 (a) or 14 (b)
15 (a) or 15 (b)

Section - C **(3 x10=30)**

Answer not exceeding four pages
Answer any three out of five (one question from each Unit)
Questions 16 - 20

The pattern for internal valuation may be

1.Test - -10 marks,average of two tests

2.Group Discussion / Seminar / Quiz - 5 marks

3.Assignments : -5 marks

4.Peer –Team –Teaching - 5 marks

Total - 25 marks

SEMESTER - I
CORE SUBJECT I

BASICS OF NUTRITION

Hours of Instruction :T- 6
Credits : 4

OBJECTIVES
TO enable the students to learn

- Provide an overview of the major macro and micronutrients relevant to human health.
- Discuss the scientific rationale for defining nutritional requirements in healthy individuals and populations, with reference to specific conditions such as pregnancy, lactation, and older age.
- Present current evidence for the role of key nutrients in the prevention of chronic diseases.
- Discuss major nutrition-related diseases in a global context.

THEORY

Unit - I

Introduction: Nutrition, Health, Nutritional Status - Definitions, Socio - Culture factors influencing nutrition, Balanced diet -- definition, Importance Food **pyramid.**

Unit-II

Energy - Energy definition, Bomb calorimeter, SDA of foods, BMR, factors affecting BMR, Direct and indirect calorimetry, Energy balance definition, deficiency of energy and Excess, RDA, sources.

Unit – III

Carbohydrates - Definition of CHO, classification, physiological functions, RDA, sources. Dietary fibredefinition.Role of dietary fibre in human nutrition.

Protein - Definition, classification, function, protein quality (BV, PER, NPU), protein requirements (RDA), deficiency. Novel proteins.

Lipids - Definition, classification, functions, RDA sources.

Unit - IV

Minerals - Classification, Minerals (Ca, P, Fe, Fl, Se, Zn, I) and their functions, RDA, deficiency and sources.

Unit — V

Vitamins — Classification, Functions, deficiency, RDA, sourcesofVitamins — A, D, E. K, B1, B2, B3, B6, B12.Folic acid, Vitamin C.

Water — Functions, requirements, water balance, sources.

REFERENCES

1. Guthrie, A.H. (1986) Introductory Nutrition, 6th ed, The C.V. MoshyCompany.
2. Gopalan, C. et. Al (1991) Nutritive value of Indian Foods, ICMR.
3. Swaminathan, M. (1985) Essentials of Food & Nutrition. Vols I & II: Ganesh & Co., Madras.
4. Robinson, C.H., *et. al* (1986) Normal & Therapeutic Nutrition. 17th ed.. MacMillan Publishing Co..
5. Williams, S.R. (2001) Basic Nutrition & Diet Therapy, 11th ed., Mosby, Inc., St. Louis.
6. Brown, J.E. (2002) Nutrition Now, 3rd edition, Wordsworth Thomson Learning, Inc., Canada.
7. Bamji. M.S., Rao, P., Reddy, V. (1998) Textbook of human Nutrition, Oxford & IBH Pub., New Delhi.

Text book: Srilakshmi (2016) Nutrition Science 7thEd.New Age Publishers**.**

Paul (2014) Textbook of Nutrition ,CBS Publishers

SEMESTER — I
ALLIED SUBJECT — I A
FUNDAMENTALS OF COMPUTERS AND MS OFFICE

Hours of Instruction : T- 4, P- 2
Credits : 4

OBJECTIVE

This paper is designed for the students to know the fundamentals of computer.

UNIT — I

Computer an Introduction, Uses of Computers in Modern Society, Characteristic of Computer, Types of Computers, Block Diagram.

UNIT - II

Data Representation in.Computers, Computer Peripherals, Application Software, Computer Capabilities and Limitations.

Introduction to Operating System, Functions of Operating System, Classification of Operating System.

UNIT III

MS Word 2002 — Creating Documents in Word — Proofing your Documents, Printing Icons, Selecting, Moving, Sizing, Windows — Menus, Drawing Tools in Word 2002, Mail Merge.

UNIT — IV

MS Excel 2002: Working with Ranges, Range Names, Filling a Range, Creating, Copying, Moving, Inserting and Deleting, Cleaning. Manipulating Formulas and Functions, Working with Charts in Excel.

MS Power Point - Creation. Modifying, Presentation Insert Images.

UNIT — V

MS Access : Introduction to Database, Creating Tables, Updating Tables.

REFERENCES

- Raja Raman V. (1999), Fundamental of Computer 3rd Edition, Prentice Hall of India . New Delhi.
- Alexis Leon and Mathew Leon, (1999), Fundamentals of Information Technology, Leon Tech World, Chennai.
- NellaiKannan C, (2008) MS-Office, Nel Publication, Tirunelveli.
- Sanjay Saxena, (2000). MS-Office 2000 for Everyone, 2nd Edition, VikasPublishing House Pvt. Ltd., Noida.
- Guy Hart Davis. (1997), The ABCs Microsoft Office, 1st Edition. BPB Publications, New Delhi.

PRACTIC.ALS :
MS — OFFICE
MS — WORD

I) Using MS word perform the following

a. Change the font size to 20.
b. Change the font type to Garamond.
c. Align the text to left, right, justify. center.
d. Underline the text.
e. Table manipulation

2) Illustrate the mail merge concept to apply for a suitable job for atleast 5companies.

MS — EXCEL

1) Statistical Function
2) Depreciation table
3) Worksheet of Marks. Total, Average of 10 students
4) Inserting a chart in the worksheet
5) Calculation of nutritive value

POWERPOINT

Create a presentation of various slides in power point.

MS — ACCESS

Creating a table related to the maintenance of hospital records.

SKILL BASED SUBJECT - I
FAMILY RESOURCE MANAGEMENT -1

Hours of Instruction : T- 2

Credits : 2

OBJECTIVES

To enable students to

1. Understand the importance of management in family and personal living.
2. Improve their ability in management of family resources.
3. Understand and apply the basic principles of art in interior decoration.
4. Understand the basic principles of planning a house.

UNIT- I: Applied Art

Design : Meaning, types and characteristics. Elements of design: line, shape, size, texture andcolour-Prang colour system.Principles of design: harmony, proportion. balance, emphasis and rhythm.

UNIT- II: Housing and its environment

Site selection — factors to be considered.

UNIT- III: Features of a house

Orientation, grouping roominess, lighting and ventilation, circulation, storage facilities, privacy,flexibility and economy.

UNIT- IV: Furniture and Accessories

Furniture - Selection and arrangement of furniture in different rooms.
Accessories – Selection, use and care.

UNIT- V: Flower arrangement

Flower arrangement — Principle, types and display.

REFERENCES

- Education planning group (1987). Home Management, New Delhi, AryaPublishing House.
- Nickell, P. and Dorsey, J.M. (1978). Management in Family Living, New Delhi : John Wiley and sons.
- Goldstein, h and Goldstein, V. (1958). Art in Everyday Life Macmillan Company.
- Varghese, M.A. et al., (1994). Home Management, New Delhi, VileyEastern Limited.
- Deshpande, R.S. (1982) Cheap and Helathy Homes for Middle Classes, Poona, United Book Corporation.
- Mullick.P., " Text Book of Home Science", Kalyani Publishers, Ludhiyana.2007

Web Reference

1. http://en.wikipedia.org/wiki/Interior_design
2. http://www.gautamshah.in/PDF/SFIJul07.pdf
3. http://www.gautamshah.in/DM2.html
4. http://freshome.com/
5. http://pinterest.com/concept2design/interior-design-notes/

SKILL BASED SUBJECT II
WOMEN ENTREPRENEURSHIP

Hours/week: 2 **Credits:2**

Max marks: 100

OBJECTIVES

To help the students

- To raise the awareness regarding women's problem.
- To get empowered to face the challenging world.
- To gain working knowledge in entrepreneurship and become entrepreneur.

THEORY

UNIT I:

Entrepreneurship — Meaning. importance. Types — Role of Entrepreneurs in Economic Development — Qualities of an Entrepreneur — Entrepreneurship career.

UNIT II:

How to start Business? — Product selection — Form of registers Plant location — Need — Licensing registration.

UNIT III:

Institutional Arrangement for Entrepreneurship Development I.T.C.O.T.. S.1.D.C.O., N.S.I.C., S.I.S.I. — Institutional Finance to Entrepreneurs T.I.I.C.. S.I.D.B.I., Commercial banks — Incentives to small scale industries.

UNIT IV:

Project Report — Meaning and Importance

UNIT V:

Women Entrepreneurship in India — Sickness in Small Scale Industries and their remedial measures.

REFERENCES

- Gordon .K &Natarajan .K, (2009), Entrepreneurship Development. 3rdEdition. Himalaya Publishing House, Mumbai.
- Jose Paul. .K. Ajith Kumar, (2002). Entrepreneurship Development and Management, 5th Edition, Himalaya Publishing House. Mumbai.
- Sundharam S.S.M. and Muthupandi .M, (2002), Entrepreneurship Development, Sri Ganapathy Publishers, Madurai.

NON MAJOR ELECTIVE - I
NUTRITION AND HEALTH

Hours /week :2
Credits:2

Max marks : 2

OBJECTIVES

This course equips the student to

1) Understand the functions & sources of nutrients.
2) Apply the knowledge in maintenance of good health for the individual and the community.
3) Be familiar with factors affecting availability and requirements.

UNIT I:

Food

Definition, Classification, functions, food groups (5 and 11 food groups)

UNIT II:

Nutrition

Definition — Health, Nutrition, Nutritional Status.

Balanced Diet — Definition, Importance.Food Pyramid.

UNIT III:

Nutrients

Definition.function, Classification (Major and Minor nutrients)

Major Nutrients	Protein, fat, Carbohydrate
Minor Nutrients	Vitamins and Minerals
Vitamins	Water soluble vitamins — Vitamin C, Bl, B2, Niacin. B6, B12, Folic acid. Fat soluble vitamins — A, D, E. K.
Minerals	Calcium. Phosphorus, Iron. Iodine. Zinc.

UNIT IV:

Nutritional Deficiency I — Major Nutrients — CHO, Protein,fat and their food sources

UNI**T V:**

Nutritional Deficiency II — Minor Nutrients — C,B_1,B_2,13_3,B_6,B_{12} and Folic A. D. E. K. Ca, P. Fe, I, Zn their food sources.

Text Book: ShashiGoyal&PoojaGupta(2012) Food,Nutrition and Health,S.Chand& Co.

REFERENCES

1. Guthrie, A.H. (1986) Introductory Nutrition. 6thed, The C.V. MoshyCompany.
2. Gopalan. C. et. Al (1991) Nutritive value of Indian Foods, ICMR.
3. Swaminathan, M. (1985) Essentials of Food & Nutrition. Vols I & II: Ganesh & Co., Madras.
4. Robinson, (1986) Normal & Therapeutic Nutrition, 17th ed., MacMillan Publishing Co.,
5. Williams, S.R. (2001) Basic Nutrition & Diet Therapy, 11th ed.. Mosby, Inc., St. Louis.

SEMESTER — II
CORE SUBJECT — II
FOOD SCIENCE

Hours of Instruction : T- 4
Credits :4

OBJECTIVES

- Understand the factors to be considered during selection of basic commodities- raw and processed and various aspects of their production and distribution.
- Understand use of different commodities in various food preparations.

THEORY

UNIT I:

Food - Definition of food. Food groups (ICMR Basic V), Methods of cooking -merits and demerits.

UNIT II

Cereals,Millets& Pulses

Cereals - Structure of Wheat, Rice - composition of Rice and Wheat. Parboiling – advantages,Gelatinisation - definition, factors, changes in cooking, Dextrinisation. Malting- and Milling of Rice and Wheat, Fermented foods - Definition, Advantages.

Millets - Definition, Composition of Corn and Ragi.

Pulses - Structure, Nutritive Value, Germination, culinary use.

UNIT III:

Milk and Meat

Milk — Composition, Types - Standardised, Toned, Double toned, Sterilized Milk products — Butter, Cheese, Curd-Culinary use.

Egg - Structure Nutritive value, Evaluation of egg quality, grading, culinary use

Meat - Nutritive value, Rigor mortis.

Fish - Nutritive Value. Selection criteria of fresh fish.

Vegetables &Fruits- Classification, Nutritive value, Water soluble pigments, Browning and its prevention.

Spices - General functions of spices with examples,Abuses, culinary use.

UNIT IV:

Fats & Sugars

Fats- Composition, rancidity - types, prevention, changes due to repeated heating

Sugars - Stages in sugar cookery and its application

UNIT V:

Adulteration – Types, tests for identifying, adulterants, Effect on health.

REFERENCES

- Sri Lakshmi (2017) Food Science. New Age International Ltd.. New Delhi.
- Hughes and Bennion M (1970) Introductory Foods. MacMillan & Co New York.
- Maray, S.M. &Shadaksharaswamy, M (1987) Food Facts & Principles TheBangalore Priming &Pub.Co.
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- Gopalan. C. (1991) Nutritive value of Indian Foods, ICMRPotter (2007) Food Science, 5th Edition;CBS Publishers
- Swaminathan, M. (1985) Essentials of Food & Nutrition. Vols I & II: Ganesh & Co., Madras.

- Robinson, C (1986) Normal & Therapeutic Nutrition, 17th ed., MacMillan Publishing Co.
- Williams, S.R. (2001) Basic Nutrition & Diet Therapy, 11th ed.. Mosby, Inc., St. Louis

Text Book

- .Potter,Text Book of Food Science, , CBS Publishers and Distributors, Delhi
- Sharma &Caralli(2006) Dictionary of Food &Nutrition,CBS Publishers
- ShashiGoyal&Pooja Gupta (2012) Food,Nutrition and Health ,S.Chand& Co

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https://coursesearch.unimelb.edu.au › Undergraduate
https://foodsci.wisc.edu
https://www.wired.com/tag/food-science

SEMESTER — II

CORE SUBJECT — III
FOOD SCIENCE PRACTICAL

Hours of Instruction : P- 2
Credits : 2

Objectives:

- To enable students to have hands on experience in cooking .
- Understand the principles and advantages of cooking.
- Understand the methods of cooking to preserve and conserve nutrients .

UNIT I

Methods of measuring ingredients.Preliminary preparations of cooking

UNIT - II

Cereal cookery - Examination of starch granules.water absorption of raw and parboiled rice, weight and volume of raw and cooked cereals.

UNIT-Ill

Pulse cookery - Cooking of pulses in soft and hard water, roasting,weight and volume of cooked pulses.

UNIT IV

Vegetables &Fruits- Prevention ofbrowning reaction - peeling techniques, types of cuts.

Milk cookery- Curdling.effect of time and temperature and application of culture in the process of curd preparation.

UNIT -V

Egg cookery - Boiled egg, poached egg. Custard, Boiling and steaming

REFERENCES

1.Sri Lakshmi (2016). Food Science.NewAge International Ltd..
New Delhi.

2. Hughes. 0 and Bennion M (1970) Introductory Foods.MacMillan & Co New York.

3. Maray, S.M. &Shadaksharaswamy, M (1987) Food Facts & Principles The Bangalore Priming &Pub.Co.

Text Book :Sri Lakshmi (2016). Food Science.NewAge International Ltd.. New Delhi.

ALLIED SUBJECT - I B
PROGRAMMING IN 'C'

Hours of Instruction : T— 4
Credits : 4

OBJECTIVES

This paper is designed for the students to get the knowledge in Language.

UNIT—I

Overview of C : Introduction — Importance of C Sample C Programs - Basic structure of C Programs, Programming style — Executing a C Program.

UNIT — II

Constants, Variables and Data, types : Introduction character set — C Tokens — Keywords and Identifiers — constants variables — Defining symbolic constants.

UNIT — III

Operators and Expression: Introduction- Arithmetic of Operators, Relational Operators — Logical Operators — Assignment operators — Increment and decrement operators, Conditional operators — Bitwise operators special operators —Arithmetic expressions. Evaluation of expressions, Precedence of arithmetic operators — Some computational problems. Type conversions in expressions —Operators precedence and associability — Mathematical functions.

UNIT — IV

Managing Input and Output Operators — Decision making and Branching —Decision Making and Looping — Arrays — Handling of Character strings — User defined functions.

UNIT — V

Structures are Unions — Introduction, Structure initialization — Comparison of Structure Variables — Arrays of structures — File management in C — Defining and Opening a file — Closing a file — Input / Output operations on files — Error handling during I/O operation. Random access to files command line arguments.

Text Books

1. Programming in ANSI C (Chapter 1 to 13)

E. BalaGurusamy

3rd Edition

Tata MC Graw Hill Publishing 2004

REFERENCES

- Bryon Gottfried, (1998), Programming With SC', 2nd Edition, Tata McGrawHill Publishing, New Delhi.

SEMESTER - VI
ALLIED SUBJECT — II F
`C' PROGRAMMING LAB

Hours of Instruction : P— 2
Credits : 1

1) Program to Bind Prime number.
2) Program to find multiplying two matrics.
3) Program to find transpose to the matrics.
4) The given string is polindrum or not.
5) Program using string functions.
6) Program to find Binary to Decimal ... etc.
7) Program to create a file in hospital management.
8) Simple program using file.

SKILL BASED SUBJECT — Ill
ENTREPRENEURSHIP SKILLS

Hours of instruction :P-2
Credits : 2

UNIT - I
Artificial Jewel making.

UNIT - II
Flower arrangement, bouquet making, vegetable carving, pot painting. glass painting.

UNIT - III
Paper products preparation and utility products (waste materials)

UNIT - IV
Soap, Detergent, powder making.
UNIT - VI
Caudle and Decorative jelly making.

SKILL BASED SUBJECT - IV
FAMILY RESOURCE MANAGEMENT - II

Hours/week : 2 **Credits:2**

Max marks :100

OBJECTIVES

To enable students to

- Understand the importance of management in family and personal living.
- Improve their ability in management of family resources.
- Become efficient decision makers.
- Understand the housing values and goals.

UNIT I: Concept of home management

Meaning of home management.
Characteristics of a good home maker.

UNIT II: Management Process

Management process - planning, organizing, controlling and evaluation.
Motivating factors in management - values, goals and standards.

UNIT – III: Time and energy management

Importance of time management. Work simplification – Principles and techniques.

UNIT IV: Decision Making

Steps in decision making, individual and group decisions.

UNIT V: Resources

Classification and optimizing the use of family resources.

REFERENCES

- 🕮 Education planning group (1987). Home Management. New Delhi. Aryapublishing House.
- 🕮 Nickell. P. and Dorsey, J.M. (1978). Management in Family Living. New Delhi John Wiley and sons.
- 🕮 Goldstein. h and Goldstein, V. (1958). Art in Everyday Life Macmillan Company.
- 🕮 Varehese, M.A. et al,. (1994). Home Management. New Delhi, VileyEastern Limited.

📖 Deshpande, R.S. (1982) Cheap and Helathy Homes for Middle Classes. Poona. United Book Corporation

📖 Maneesh.S., "Home Management and Family Finance", Dominant Publishers and Distributors, New Delhi. 2006.

Web Reference

1. http://www.goodreads.com/book/show/9873788-large-family-logistics
2. http://www.goodreads.com/book/show/1249008.Time_Management_For_Manic_Mums
3. http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=EJ248177&ERICExtSearch_SearchType_0=no&accno=EJ248177

NON MAJOR ELECTIVE - II
WOMEN & CHILD HEALTH

Hours /week : 2 **Credits:2**

Max marks:100

UNIT I:

Adolescence — Definition, characteristics and Nutritional needs.

UNIT II:

Food and health concerns of adolescence— Definition of food.Health.Nutritional problems (Anaemia, Eating disorder) and prevention, premenstrual syndrome. Faulty food habits of adolescence.

U NIT III:

Motherhood — Fertilization definition, signs and symptoms of pregnancy, common discomforts and complications of pregnancy.prenatalinfluences. Nutritional needs of pregnant mother.

UNIT IV:

Beginning of human life - Prenatal Development — Stages Multiple births. Determination of Baby's Sex child birth - Stages and Types.

UNIT V:

Infancy— Nutritional needs. Advantages of breast feeding, Advantages and disadvantages of bottle feeding, supplementary and weaning foods.Immunisation— Definition, schedule.

REFERENCES

📖 Diane E, Papatia (1995), Human Development MCGRAW Hill, Inc New York. 6th Edition.

📖 Ganine B. Dehart (2006), Child Development — its nature and course. McGraw Hill. Boston Fourth Edition.
📖 Shubhagini A. Joshi (2002), Nutrition & Dietetic, Tata McGraw Hill Publishing Company Limited, New Delhi 2nd Edition.

SEMESTER III
CORE SUBJECT IV
FOOD MICROBIOLOGY

Hours /week : T- 4, P-2 **Credits:4**
Max marks : 100

OBJECTIVES

To enable students to :

1. Gain knowledge of the role of micro-organisms in health and disease.
2 . Understand the role of microbes in relation to food spoilage & food borne diseases.

THEORY

UNIT - I

General characteristics of microorganisms — bacteria, viruses, yeasts, molds **aid** protozoa. A brief study of their morphology and diseases produced them.

UNIT - II

Primary sources of microbes in foods.

Control of microbes :Sterilisation, Disinfection, pasteurization. Physical - agents - lightdesiccation, electricity, irradiation and heat.

Removal of microbes — filtration, sedimentation.Chemical agents - Preservatives & antibiotics.

UNIT — III

Food spoilage : Contamination of foods and microbes in the spoilage of foods and their prevention. Spoilage of cereals & cereal products, vegetables & fruits, sea foods, meat, egg, poultry & canned foods, milk & milk products.

UNIT — IV

Public health hazards due to food contamination. Food borne infections &intoxications - symptoms, mode & sources of transmission, methods of prevention: detection of food borne disease outbreak. Importance of sanitation and hygiene in foods.Milk and water sanitary quality.HACCP — concept & application in food safety.

UNIT - V

Importance of microbes in foods. Fermented foods & fermenting age Cereal — pulse mixtures, wheat products, milk products, soy products. alcoholic. beverages.

DEMONSTRATIONS

1) Examination of yeasts. moulds. protozoa and pathogenic bacteria under the microscope.

2) Examination of stained organisms — Hanging drop preparation method

3) Examination of stained organisms — Simple staining and Gram's method 01

4) Demonstration of serial dilution technique & pure culture technique.

5) Visit to a milk processing plant. Demonstration of phosphatase test.

6) Demonstration of certain types of food fermentation.

REFERENCES

- Joshua. A.K. (1988) — Microbiology : III Edition, Popular Book Depot. Madras.
- Frazier. W.c. and Westhoff D.0 (1988) Food Microbiology, 4th ed. John Wiley & Sons, Inc., New York.
- Jay, J.M., (1986) Modern Food Microbiology, 3'd ed. Van NostrandReinhold Co. Inc.
- Roday, S. (1999) Hygiene & Sanitation in food Industry. Tata McGraw Hill Publishing Company Ltd., New Delhi.
- Harold. B. (1990) Microbiological applications. C Brown Publishers. USA

Text Book.

- Foster (2016) Textbook of Food Microbiology;CBS Publications.

ALLIED SUBJECT II A
HUMAN PHYSIOLOGY

Hours/week : T- 4, P-2 **Credits:4**

Max marks : 100

OBJECTIVES

To enable the student to understand

1. Different systems of the body and their functions with special reference to digestion, absorption, transport and uptake of nutrients and elimination of waste products.
2. Physiological changes at different stages of life
3. Importance of hormonal and nervous regulation of the body functions.

THEORY

UNIT I:

Digestive System

Anatomyof the digestive tract and process of digestion of carbohydrates,Proteins and fats,absorption and assimilation of food.Movements of the GI tract.

Urinary System

Kidneys Structure and functions. Formation of urine — Micturition
Impairments of urinary system: Nephritis,Glucosuria,Proteinuria,Oedema.

UNIT II:

Circulatory System

Heart and blood vessels - Structure and functions .Composition and functions of blood,RBC,WBC.Erythrocyte Sedimentation rate.Blood coagulation, blood grouping and blood transfusion.

UNIT III:

Respiratory System

Anatomy of the respiratory system. Process of respiration, transport

and exchange of oxygen and carbon dioxide in the body.

Endocrine glands

Pituitary, Thyroid, Adrenal and Gonads - Structure and Functions

UNIT IV:

Reproductive System

Anatomy of the male and female reproductive organs, Menstrual cycle, Conception, Contraception, Parturition, Lactation.

UNIT V:

Sense Organs

Structure and functions of eye, ear, and skin.

Nervous System

Anatomy of neuron. Central, Nervous System- Structure and functions of Cerebrum, cerebellum, medulla oblongata. Autonomic Nervous system and Functions.

DEMONSTRATIONS

1. Histology— identification of tissues through slides
2. RBC and WBC count using Neubauer's counting chamber.
3. Determination of haemoglobin — Sahli's Method.
4. Demonstration of coagulation of blood and blood grouping.
5. Recording pulse rate and measurement of blood pressure.

REFERENCES

- Sathya/Devanand (2014) Textbook of Physiology ,CBSPiblications.
- Chatterjee, C.C. (1998) Human Physiology, Medical Allied Agency, Calcutta.
- Subramaniyan&Kutty, S.M. (2001) Text Book of Human Physiology. S. Chand & Company Ltd.. New Delhi.
- Joshi. D.V. (1995) Preparatory Manual for Under Graduate Physiology, BA. Churchill Living Stone. New Delhi.
- Chatterjee (2016) C.C Chatterjee's Human Physiology Vol 2 ,11th Edition,CBS Publications

Web References

www.coursera.org/learn/physiology
www.reference.comScienceHuman Anatomy

www.coursera.org/learn/physiology

Text Book:Chatterjee(2016) Human Physiology, Vol 2.,CBS.

SEMESTER — IV
CORE SUBJECT - V
FOOD SERVICE LAYOUT,EQUIPMENT AND QUANTITY COOKERY

Hours/week : 4 **Credits:4**
Max marks: 100

OBJECTIVES

To enable students to

- Gain knowledge and develop skills in handling equipment and maintenance.
- Gain knowledge on food service layout.
- Understand the basic principlesin catering science
- Develop skills for quantity cookery.

THEORY

UNIT I:

Meaning, Classification and Organisation of Food Service Units

Meaning of Food Service Institution, classification of FSI - Commercial-Hotel, Motel, Restaurant, Bar, Pub, Fast Food Restaurant, and Popular Catering, Leisure linked Catering, Departmental Store Catering/Food court, Miscellaneous-ContractandOutdoor. Non Commercial-Transport Catering,Industrial Catering, Hospital and welfare catering.

UNIT II:

Food plant -Service area, Production area, Storage area - Location, Layout, Structural features, Lighting, Sanitation & Safety, Waste disposal.Types of Kitchen, Layout of different food service establishments

Equipment in Food Service

Classification of equipment, factors for selection of equipment, care and maintainanceof electrical and non-electrical equipment for food storage, preparation, food serving, dish washing and laundering.

Unit III:

Quantity Food Preparation

Standards for food selection, methods of buying, specifications, use of processed and convenience foods, transport, handling and storage, standardization of recipes, calculation of food cooked and portion control, utilization of left over foods, methods of safe handling of fresh foods and cooked foods and costing of foods.

UNIT IV:

Institutional Food Services

Styles of service - formal and informal services, types of menu -Table d'hote menu, Ala carte menu, cyclic menu, buffetmenu,banquetand industrial catering menu, transport catering menu.Study of menus for different types of quantity food outlets. Courses in a menu,points for menu writing. Mechanicsof menu Planning and menu format

UNIT V:

Hygiene and Sanitation

Hygiene and sanitation in preparation and serving area -Personal hygiene, types, sources of contamination, prevention, safety measures, methods of controlling infestation, methods of dish washing.

REFERENCES

- West B.B. Wood L. Harger V.P. (1966) Food Service in institutions John Willey And sons, Inc., New York.
- A very, A.A., Modern Guide to Food Service, C.B.I. Publishing Inc., 1980.
- Kotschevir, Land Terrell, M.E. Food Service planning and Equipment, John Wiley and Sons, 1979.
- MohiniSethi, SurjeetMathan, Catering Management,Anintergrated Approach, New Age International Pvt. Ltd., New Delhi, 2015.
- Kotschewar L. and Terrel M.E.(1961) Food service Planning layout and Equipment, John Wiley and Sons Ltd.
- Thangam E. Philip (1965) Modern Cookery for Teaching and the trade vol. I & II, John Wi, Orient Longmans Ltd., New Delhi.
- Theory of Cookery – Krishna Arora (Frank Bros. & Co., New Delhi)

CORE SUBJECT VI
FOOD SERVICE LAYOUT,EQUIPMENT AND QUANTITY COOKERY PRACTICAL

Hours/week :2 **Credits:2**

Max Marks : 100

UNIT I:

Market survey to learn the trends in kitchen equipment available in the market.

Visit to restaurants to gain knowledge on food service layout and application of food science in catering.

UNIT II:

Basic rules for laying a table for various meals & menus. Menu card writing and designing

Napkin folds, table setting. Indian leaf & plate service Formal service lunch, dinner informal service — break fast, tea.

UNIT III:

Preparation of soups, starters, sauces, gravies, meat items, vegetables, egg dishes. Cereals& sweets.

UNIT IV:

Standardisation of few selected recipes in relation to nutritive value, cost, time and equipment.

UNIT V:

Organising, preparing & serving food for three different meals for 50 members or more.

REFERENCE

- MohiniSethi, Surject Nathan (2015)., Catering Management, An Intergrated Approach, New Age International Pvt. Ltd., New Delhi..
- Thangam E. Philip (2015) Modern Cookery for Teaching and Trade – Vol. I & II Orient Longman Publications
- Kinton and Ceserani(2016) Practical Cookery – ELBS Publications
- TKrishna Arora(2016) Theory of Cookery – Frank Bros. & Co., New Delhi

ALLIED SUBJECT - I E
NUTRITIONAL BIOCHEMISTRY

Hours/week: 4 **Credits :4**

Max marks: 100

OBJECTIVES

To enable the students to

- Understand the principles of biochemistry in relation to human nutrition
- Obtain an insight into biochemical functions of major nutrients
- Apply the acquired knowledge to human nutrition an d dietetics

UNIT 1: Introduction to Biochemistry

Objectives and Scope.

Carbohydrates: Definition, classification, structure and properties of

Monosaccharides – glucose, fructose, galactose

Disaccharides – maltose, lactose, sucrose

Polysaccharides – starch and glycogen

Metabolism of carbohydrate — Glycogenesis, Glycogenolysis, Glycolysis, TCA cycle, Gluconeogenesis.

UNIT 2: Proteins

Definition, Classification, Structure, Properties of proteins. Amino acids - Classification, Nomenclature, Structure, Properties and Metabolism of amino acid – Decarboxylation,Transamination, Deamination. Urea cycle - Fate of carbon skeleton of amino acids.Essential and Non-essential amino acids.Nucleic acids - Bases nucleosides and nucleotides - structure - function.

UNIT 3: LIPIDS

Classification of lipids — Properties and chemical composition of fats.Significance of Acid value, Iodine value, Saponification value.Types of phospholipids and glycolipids.Classification, nomenclature and properties of fatty acids.Lipidmetabolism, ß-Oxidation of fatty acids- unsaturated andsaturated fatty acids.Ketone bodies and Ketogenesis. Lipoproteins – types, composition and significance in diseases. Biosynthesis of fatty acids.Steroids and plant sterols.

UNIT 4: Enzymes

Definition, classification and mechanism of enzymes and co-enzymes.Specificity of enzymes, Isozymes.Role of enzymes and co-enzymes in significant biochemical reactions.

UNIT 5: Biologic Oxidation

Combustion and biologic oxidation, the redox potential - the respiratory chain, the election transport particles - Oxidative phosphorylation (Respiratory chain phosphorylation).Energy conservation.

REFERENCES

1. Shanmugam, A. (1998) Fundamentals of Biochemistry for Medical Students, Karthik Chennai.
2. LA Deb, A.C. (1983) Fundamentals of Biochemistry, New Central Book Agency (P) Ltd., Calcutta.
3. Agarwal, G.R., Agarwal, K. &Agarwal, O.P. (1995) Text Book 01 Biochemistry, Goel Publishing house, Meerut.
4. Sethu, G. and Ramn, M. (2004) Essentials of Physiology and Biochemistry G.M. Publishers. Chennai.

ALLIED SUBJECT — I F
NUTRITIONAL BIOCHEMISTRY PRACTICAL

Hours/week : P-2 **Credits:1**

UNIT - I

Qualitative tests for protein and individual aminoacids.
Estimation of total protein by Biuret method.(Demonstration).

UNIT - II

Qualitative tests for carbohydrates and minerals.

UNIT - III

Estimation of glucose by Benedicts Method.

UNIT - IV

Estimation of Vitamin C by titrimetry.
Estimation of calcium-Demonstration.

UNIT – V

Estimation of Phosphorous by colorimetry.
Estimation of Iron by colorimetry.

REFERENCE

📖 Agarwal, G.R., Agarwal, K. Agarwal, O.P., (1995), Text Book of Biochemistry, Goel Publishing House, Meerut.

ALLIED SUBJECT — II B
HUMAN DEVELOPMENT

Hours/week : 4 **Credits:4**
Max marks : 100

OBJECTIVES

- To acquire deeper understanding of the developmental aspects of prenatal stage to old age.
- To develop skills in achieving positive human relationship
- To gainknowledge in teaching in a preschool.
- To understand the concept and classification of children with special needs

THEORY

UNIT I:

Conception to Early Childhood

Growth and development - Definition, principles and factors influencing.

Pregnancy-symptoms and complications.

Prenatal stage, birth process and types of birth, antenatal and postnatal care.

Growth and Development of Early childhood - Physical and motor , social, emotional and cognitive development.

UNIT II:

Late childhood to Old age

Late childhood - physical and motor, emotional, social and cognitive development

Adolescence - problems, physical and motor ,emotional, social and cognitive development

Adulthood – characteristics and developmental tasks

Old age - characteristics, physical, physiological and psychological changes.

UNIT III:

Methods of Child Study- observation, interview, questionnaire, case study, rating scale, cross sectional and longitudinal and experimental method

Play- definition, types , theories and values

Habits- Definition, advantages, principles of habit formation

UNIT IV:

Preschool education- Meaning, objectives, importance, types, preschool setup, programme, equipments, records and characteristics of a preschool teacher

Behavioral Problems **–** causes, prevention, types – temper tantrum, thumb sucking, bed wetting, stealing, truancy and masturbation

Discipline- meaning**,** types

UNIT V: Children with special needs

Definition, classification- physically handicapped, hearing, visually, speech impaired, mentally handicapped, gifted, emotionally and socially maladjusted children.

REFERENCES

- Hurlock, E.B, (1978), Child Development, Tata McGraw Hill, New Delhi.
- DevadasR.P, and Jaya N. (1999), Text Book on Child Development, MacMillan Co. Chennai.

- 🕮 Diane E. Papalia and Sally Wendkos Olds, (1995), Human Development, 6th Edition, McGraw Hill, Inc. New Delhi.
- 🕮 Nancy J. COBB (2001). the Child — infants, children and Adolescents May Field Publishing Company, London.
- 🕮 GanieB. Dehart, L. Alan Sroufe, Rober G. Cooper, (2000), Child Development —Its Nature and Course. 4th Edition, McGraw Hill, New Delhi.
- 🕮 Suriakanthi,A.,(1989) Child development An Introduction, Kavitha Publications, Gandhigram.

ALLIED SUBJECT — II C
HUMAN DEVELOPMENT PRACTICAL

Hours/week :2 **Credit :1**

UNIT - I

Preparation of visual aids for teaching preschool children

UNIT - II

Collecting suitable stories and rhymes for children.

UNIT – III

Visit a preschool and observe the following

a. Physical and motor, social, emotional and intellectual development of children
b. Physical set up of preschool
c. Play Equipment
d. Pupil - teacher ratio
e. Daily Programme.

UNIT - IV

Preparation of the creative activities, games, science experiences for preschool children

UNIT - V

Preparation of low cost play equipments.

Planning, Organizing and executing the preschool programme for a week in a preschool.

REFERENCE

- Devadas,R.P. and Jaya, (1999), Text Book on Child Development, Milian Co., Chennai.

SEMESTER V

CORE SUBJECT - VII

FRONT OFFICE MANAGEMENT AND HOUSE KEEPING

Hours/week :4 **Credits :4**

Max marks : 4

OBJECTIVES

To enable students:

- To become aware of the different areas and functions of Housekeeping department.
- To acquire knowledge regarding maintenance of rooms.
- To understand the organizational procedures of the front office.

THEORY

UNIT — I

- Introduction to hotels as a service industry — Types of Services; Importance of hospitality — classification of hotels, types of guests, front office operations — information, reservation, reception.

UNIT-II

- Qualities, attributes and duties of front office personnel, coordination &communication between front office & other departments.

UNIT-III

- Organisation of housekeeping department; duties and responsibilities of housekeeping staff. Coordination of housekeeping department with other departments.

UNIT - IV

- Linen and Laundry : Types or linen, selection, control & distribution, record keeping linen room staff & their duties, storage procedure. Layout &physical features of a laundry, laundry procedure.

UNIT — V

- Soft Furnishings : Selection, care and maintenance of beds, mattresses, pillows, blankets, covers.
- Window treatment — draping fabric, hanging of curtains.
- Carpets — types, selection, care & cleaning.
- Cleaning Activity : Cleaning agents &equipments — selection and use; Types of cleaning — daily. weekly, yearly; cleaning techniques.

REFERENCE

- Andrews, S. (1985) Hotel Housekeeping — training manual, Tata McGraw —Hill Publishing Co. Ltd., New Delhi.
- Lennox, M., Branson, J. (1995) Hotel, Hostel and Hospital Housekeeping, Pitman Publishing.
- Hurst Rosemary : Services & Maintenance for Hotels & Residential establishments, William Heinmann Ltd., 10 Upper Grosvenor street, London.
- Andrews, S. (1982) Hotel Front Office Training Manual, Tata McGraw Hill, Publishing Co. Ltd., New Delhi.
- Jones, C. and Paul, J.V. (1980) Accommodation Management : A System Approach, Batefrod.

CORE SUBJECT -VIII
Nutrition through Life Cycle

Hours/week : 4 **Credits:4**
Max marks :100

OBJECTIVES:

To enable the students to

- Identify specific nutrient requirements for each stage of the life cycle.
- Relate nutrient needs to developmental levels and plan diets which will adequately meet nutritional needs of given levels and development of eating habits.
- Evaluate dietary intakes and feeding programs for individuals throughout the life cycle.

Unit I

Meal Planning

Meal Planning: Basic principles of meal planning, factors influencing meal planning. Basicmeal pattern and modification to suit different income groups, age and physiology related stress. Meaning and importance of balanced Diet, RDAfor different age groups and food exchange list and number of exchanges according to age and physical activity.

UNIT II

Nutrition during pregnancy and lactation

- Overview of lifespan Nutrition and Nutrition and fertility
- Nutrition during pregnancy - Physiological changes during pregnancy,Maternal malnutrition & outcome of pregnancy, complications&nutrient requirements during pregnancy
- Nutrition during lactation - Physiology of lactation. Nutrient composition of human milk, Nutrient requirement during lactation

UNIT III

Nutrition during Infancy,preschool and school going period

- Growth and development during infancy, nutrient requirements. Advantages of Breast feeding,breast milk substitutes and their modification,Weaning and introduction of complementary feeding.Feeding the premature infant.
- Preschool age :Growth and development. Nutrient Requirements, dietary concerns and their management and inculcation of good food habits,
- Childhood age :NutrientRequirements,dietary concerns and their management , Considerations for balanced Packed lunch,feedingprogrammes-School lunch programme.

UNIT IV

Nutrition during Adolescence and Old Age

Adolescence- Growth and development.Nutrient requirements andeating disorders.
Adulthood-Nutrient requirement,dietary concerns and their management
Ageing process and changes, Nutritional requirements during old age and nutritional related problems during oldage.

UNIT V

Nutritional Deficiency Diseases

- Nutritional deficiency diseases with reference to vulnerable group — dietary treatment of nutritional anemia and Vitamin A.
- Protein calorie malnutrition - etiology, signs and symptoms, dietary intervention.

REFERENCES

- Srilakshmi, B., (2010) Dietetics, New Age International (P) Ltd., Chennai.

- Mahan, L.K. and Escott-Stump, S. (2000): Krause's Food Nutrition and Diet Therapy,10th, Edition, W.B. Saunders Ltd.
- Shils, M. E., Olson, J.A., Shike, M. and Ross, A.C. (1999): Modern Nutrition in Health and Disease, 9th Edition, Williams and Wilkins.
- Robinson, C.H., Normal and the Therapeutic Nutrition, The Oxford and IBH Publishing Co., 1977.
- Gopalan, C., and Balasubramanian, S.C. Ramasastri, B.V. and ViswesveraRao. Diet Atlas of India, ICMR., New Delhi, 1970.
- Guthrie. A.H. (1986) Introductory Nutrition, 6thed, The C.V. Mosby Company.
- Swaminathan. M. (1985) Essentials of Food & Nutrition, Vols I & II; Ganesh & Co., Madras.
- Willims, S.R. (2001) Basic Nutrition & Diet Therapy. 11th ed., Mosby, Inc., St.Louis.
- Brown, J.E. (2002) Nutrition Now. 3rd edition. Wordsworth Thomson Learning. Inc.. Canada.

Websites

http://218.248.6.39/nutritionatlas/home.html

Online version: **Diet atlas of India**. [New Delhi] : **Indian** Council of Medical Research,

Nutrition through Life Cycle Practicals

1.Planning and preparation of diets for special conditions – Pregnancy and Lactation.
2.Planning and preparation of diets for preschool and school going children.
3.Planning and preparation of diets for adolescent girls and boys.
4Planning and preparation of diets for hard working and elderly persons.

CORE SUBJECT - IX
FOOD SERVICE MANAGEMENT

Hours /week : T- 4, P-2 **Credits:4**

Max marks: 100

OBJECTIVES

To enable the student to :

- Understand the management aspects of food service
- Gain knowledge about various types of food service.

- To know and comprehend the basic managerial concepts involved in food service industries

THEORY

UNIT I

Introduction, Definition of food service industry, objectives and principles of food service industry.

Principles and procedures of management-Definition of management, organization & interaction at work principles of management, functions of management , Managerial roles & responsibilities, the manager andLeadership: Importance; Styles, traits and skills.

UNIT II

Tools of management –Definition, classification:- tangible tools, intangible tools, Organization chart,structure,function, work improvement techniques.

UNIT III

Material management, Quantity food preparation and service- Definition.Principles of quantity food purchase- selection, buying and accountingof different foods.Inventory management- assessing requirements, receiving of stock,recordmaintenance.Factors in menu planning for large groups, systems for maintaining quality in food preparation and service.

UNIT IV

Personnel management -Definition, scope, Functions of a personnel manager, Factors to consider while planning the kind and number of personnel- Menu, type of operations, Type of service, Job description and job specification. Manpower planning- Recruitment: Process and Sources-Internal and external selection: Process interview, Tests , Orientation: Importance, content of programme, developing an orientation programme,Training: Importance and types, Performance appraisal: Importance, methods, limitations,Labour policies and laws

UNIT V

Financial Management - Cost account and keeping, inventory maintenance of account books, balance sheets, food, Pricing and its methods,costing: concepts and controlling techniques;cost effective procedures, Concept of Break Even Point (BEP)

REFERENCES

- 🕮 West. B.B., Wood-L Hoglet F. and Shukart, G., Food Service in Institution John Wiley & Sons, 1977.
- 🕮 Longree, K., Food Service Sanitation, John Wiley and Sons. 1973.

📖 MohiniSethi, Surject Nathan, Catering Management, AnIntergrated Approach, New Age International Pvt. Ltd., New Delhi, 2015.
📖 MohiniSethi, Institutional Food Management, , New Age International Pvt. Ltd., New Delhi, 2004.

Food Service Management Practicals

1.Types of cuisines
- Continental cuisine
- Chinese cuisine
- Indian cuisine (North & South)

2.Types of Services
- a la carte'
- table d'hote'

3.Food& Beverage Service
4.Types of Napkin folding.

SEMESTER V
ALLIED SUBJECT II D
EXTENSION EDUCATION
Hours of instruction / Week:4 +2
Credits :6

OBJECTIVES:

To enable students to
- Understand the5 principles of Extension Education.
- Gain skills in Extension teaching methods.
- Understand the significance of communication and role of audio-visual aids for effective communication.

Unit – I: Concept of Extension

Concept, meaning, principles, philosophy and objectives of extension education.Home Science Extension- Meaning & Characteristics.

Unit – II:Community Development Programme

Community Development Programme: History, Principles, Objectives. Panchayat Raj: meaning, Three tier system - village, block and district level; Principles of democratic decentralization.

Unit – III:Extension Teaching Methods

Teaching and learning, Steps in Extension teaching, Classification of extension teaching methods:according to use –individual, group and mass; according to form – written, spoken and visual; scope, advantages, limitations, factors guiding the selection and use of teaching methods.

Unit – IV:Communication and Audio Visual Aids

Communication – Definition, Means - oral, written, signs; Types- Verbal and non-verbal, Elements of communication;SMCRE Barriers to communication.Traditional and modern media of communication.

Classification of audio visual aids in extension work – Cone of Experience – advantages and limitations. Factors limiting the selection and use of audio visual aids.

Unit – V:Programme Planning

Definition, meaning, principles, steps in programme planning or program development cycle Plan of work – objectives, calendar of activities.Programme implementation, role of officials & non-officials; Evaluation – types, uses and tools of evaluation.

PRACTICAL EXPERIENCE

1. Visit to a Block to learn the set up and functions.
2. Visit to the village to see the functioning of Gram Sabha.

REFERENCES

1. Chandra A., Shah A. & Joshi U. (1989) Fundamentals of teaching Home Science, South Asia Books.
2. Dhama, O.P. and Bhatnagar, O.P. (1980) Education and communication for Development, Oxford & IBM Publishing Co.
3. Dubey, V.K. &Bishnoi, I. (2008),Extension Education and Communication, New Age International Publishers, Chennai.
4. Reddy, A.A. (1971) Extension Education, Sri Lakshmi Press, Bapatla.
5. Roy, G.L. Extension Communication and Management, New Delhi, 1994.

Web Reference

1.http://www.wanterfall.com/Downloads/Communication.pdf
2.http://www.slideshare.net/pria87/audio-visual-aids

CRECHE MANAGEMENT

Hours/week : 2 **Credits :2**

Max Marks : 100

UNIT I

Creche - definition, objectives, characteristics.Needs of children - Biological, Psychosocial and Egoistic.

UNIT II

Nutritional needs ofinfantsand preschool children.

Minor ailments of children- Causes, prevention and care

Safety - Prevention of accidents, First Aid - Cuts, burns,Choking, simplewounds, simple first aid bandaging techniques.

UNIT III

Daily programme of acreche — gross motor activities, fine motor activities, mental stimulation activities.Planning a daily programme in a creche

UNIT IV

Physical set-up of a crèche - Location, building, infrastructural facilities.

UNIT V

Operation of the creche -Creche administration, budget, tax, record maintenance, Recruitment, management styles.staff support and supervision.

REFERENCE

1. Baradha,G. (2007), Sharadalaya Press, Basics of Human Development Sri Avinashilingam Educational Trust, Coimbatore.

2. Jeya,N(2004), Parenting children below two years SubhadraNarasinhamAbacus Foundation, 141, Ramalingam Colony, Bharathi Park Road, Coimbatore.
3. AparajithaChowdhury and Rita Chowdhury(2002), Preschool children-Development, care and education,New AL,:c International (P) Limited, 4835/24, Ansari Road. Daryagany, New Delhi.

SEMESTER - VI
CORE SUBJECT - X
FOOD PRESERVATION AND BAKERY

Hours /week :4 **Credits:4**
Max marks : 100

OBJECTIVES

To enable the students to :

- Understand the basic concepts of food preservation and baking.
- Become familiarize with preservation and baking processes and operations.
- Develop skills and techniques in food preservation and bakery.

THEORY

UNIT I

Meaning – definition and objectives, importance, principles and methods of food preservation.

Drying and dehydration — Principles, methods of drying, Methods of dehydration, different types of driers, packing and storage.

UNIT II

Low temperature — Principles, Types of storage — Refrigeration, cold storage, freezing,Canning and bottling - Principles involved, method.

Irradiation — Sources of ionizing radiations, units of measurements, applicationsof irradiation to raw and prepared foods and their safety.

UNIT III

Jams, jellies and marmalades — Definition,method of preparation, pectic substances present in fruits,methods of determination of pectin in food extract, difficulties in jelly making.

Picking — Principle, action of preservation, types of pickle.

Evaluation of food quality — subjective and objective methods of measuring quality of food products.

UNIT IV

Bakery – Role of raw materials and options used in baking-Wheat flour and its role in bakery products.Other ingredients and their functions in baking- Yeast, egg, sugar, fats, milk, emulsifiers, dried fruits, enzymes, cream and leavening agents.

UNIT V

Cake – Ingredients, principles involved while preparing cake, methods, and characteristics of cake, fault in cake preparation and their causes

Bread making – Methods, steps, characteristics of bread, bread fault and their causes

REFERENCES

- Sivasankar, B. (2002) Food Processing and Preservation, Prentice — Hall of India Pvt. Ltd., New Delhi.
- Subbulakshmi, G. and Udipi, A.S. (2001) Food Processing and Preservation New Age International Publishers, New Delhi.

- SandeepSareen (1999) Food Preservation. Sarup and Sons, new Delhi.
- VAngarde, J.S. and Woodburn, M. (1999) Food Preservation and Safety, Principles and Practice, Surabhi Publications, Jaipur.
- Kalia, M. and Sood, S. (1996) Food Preservation and Processing. KalyaniPublishers, New Delhi.
- Jood, S. and Khetarpaul, N. (2002) Food Preservation, Agrotech Publishing Academy, Udaipur.
- Thangam E. Philip (1999) Modern Cookery Vols.I& II Orient Longman Mumbai.
- Milk. R.K. and Dhingra. K.C. (1981) Technology of Bakery products,Modern Bakery Industries, Small Industry Research Institute. New Delhi.
- Matz, S.A. (1989) Bakery Technology, Packaging, Nutrition, Product Development and Quality Assurance, Elsevier Science Publisher Limited, New York. USA.
- Wade, P. (1988) biscuits, Cookies and Cracker, Vol. I. Elsevier, Applied Science Publisher Ltd., New York, USA.

CORE SUBJECT - XI
PRESERVATION AND BAKERY PRACTICAL

Hours/week : P— 2 **Credits:1**

Max marks : 100

UNIT I

Preparation of squashes, syrups, jams and jellies .

UNIT II

Preparation of preserves,marmaladeandpickles.

UNIT III

Preparation of cakes — plain cake, sponge cakes, cup cake, pan cake, fritters,pizza

UNIT IV

Preparation of custard, pudding and doughnuts.

UNIT V

Preparation of cookies.

REFERENCES

- Sivasankar, B. (2002) Food Processing and Preservation, prentice — Hall of India Pvt. Ltd., New Delhi.
- Subbulakshmi, G. and Udipi, A.S. (2001) Food Processing and Preservation New Age International Publishers, New Delhi.

- SandeepSareen (1999) Food Preservation, Sarup and Sons, New Delhi.
- Yogambal (2008), Baking and confectionary, VisigaPublication,TamilNadu.

SUBJECT - XII
DIETETICS

Hours/week: 4 **Credits:4**
Max Marks:100

OBJECTIVES

To enable students to

- To describe the roles and responsibilities of a dietitian in a Hospital.
- To plan and prepare therapeutic diets for patients.
- To organize diet counseling to patients and family.

UNIT I

- Definition of dietetics - Purpose and principles of therapeutic diets. Factors considered in planning therapeutic diets.Classification and Roles of dietitians.Organisation and job description of dietitians.
- Routine Hospital diets - Clear fluid diet, full fluid diet - soft diet, regular normal diet - pre-operative diet, post-operative diet.
- Special feeding methods - Tube feeding, Parental feeding – advantages and disadvantages.

UNIT II

Causes, symptoms and dietary management of

- Febrile diseases - Acute: Typhoid, influenza, Malaria. Chronic: Tuberculosis, HIV infection.
- Diet in Allergy - Definition, Classification, Food allergens, test for allergy dietary treatment. Dietary recommendations for Lactose intolerance, Celiac disease, Gluten intolerance.

UNIT III

Causes, symptoms and dietary management of

- Gastro intestinal diseases – Diarrhea, dysentery and constipation.
- Peptic ulcer, Ulcerative colitis, Crohn's diseases, irritable bowel syndrome.

UNIT - IV

Therapeutic Diets

Types, causes, symptoms, diagnosis,dietary management and use of exchange list for

- Obesity and leanness
- Diabetes mellitus

- Cardio - Vascular diseases - Hypertension, Atherosclerosis, congestive cardiac failure.Sodium restricted diet.

UNIT - V

Therapeutic-Diets

- Disease of liver - Hepatitis, Cirrhosis, Assessment of gall bladder diseases.
- Disease of the urinary tract - Nephritis, Nephrotic Syndrome, Urinary calculi, Renal failure.

REFERENCE

- Srilakshmi, B.Dietetics. New Age International (P) Ltd., Chennai (2000).
- Robinson, C.H. Normal and the Therapeutic Nutrition. The Oxford and IBH Publishing Co. (1977)
- Gopalan. C. and Balasubramanian. S.C. Ramasastri. B.V. and VisweswaraRao. Diet Atlas of India, ICMR, New Delhi, 1970.
- Guthrie. A.H. (1986) Introductory Nutrition, 6th ed, The C.V. Mosby Company.
- Swaminathan, M. (1985) Essentials of Food & Nutrition, Vols I & II: Ganesh &Co.. Madras.
- Williams, S.R. (2001) Basic Nutrition & Diet Therapy, 11th ed., Mosby. Inc., St.Louis.
- Brown. J.E. (2002) Nutrition Now, 3"I edition. Wordsworth Thomson Learning. Inc. Canada.

Text Book: Srilakshmi, B.(2000) Dietetics. New Age International (P) Ltd., Chennai .

CORE SUBJECT — XIII
DIETETICS PRACTICAL

Hours/week : P 2 **Credits:5**

Max marks : 100

UNIT - I

Planning and Preparation of Therapeutic diets — soft diet, clear and full liquid diet.

UNIT II

Planning and Preparation of diet for obesity and underweight, diarrhea, constipation.

UNIT - III

Planning and Preparation of diet for fevers of short (Typhoid) and long duration (Tuberculosis)

UNIT—IV

Planning and Preparation of diet for Diabetes and Cardio vascular diseases-Atherosclerosis and Hypertension.

UNIT — V

Planning and Preparation of diet for peptic ulcer, jaundice, cirrhosisand Nephritis.

REFERENCES

- Srilakshmi, B., Dietetics, New Age International (P) Ltd., Chennai, 2000.

- Robinson. C.H., Normal and the Therapeutic Nutrition, The Oxford and IBH Publishing Co., 1977.
- Gopalan, C., and Balasubramanian, S.C. Ramasastri, B.V. and ViswesveraRao, Diet Atlas of India, ICMR., New Delhi, 1970.
- Guthrie, A.H. (1986) Introductory Nutrition, 6th ed, The C.V. Mosby Company.

CORE SUBJECT —XIV
COMMUNITY NUTRITION

Hours/week : 4 **Credits:4**

Max marks : 100

OBJECTIVES

To enable students to

- To understand national nutritional problems and their implications.
- To become familiar with the national and international contributions towards improvement of nutrition in India.

UNIT I

Assessment of Nutritional Status of the Community

- Diet or nutritional survey method.
- Clinical Method.
- Anthropometric measurement.
- Bio-chemical methods
- Bio-physical and Radiological
- A Vital Statistics

UNIT II

Definition of malnutrition

Etiology of malnutrition.strategies to prevent malnutrition, consequences of malnutrition.

UNIT III

Nutrition Education

- Definition, importance, principles is planning, programme execution and evaluation, integration with other national programmes. Mass media, types, preparation of educational material.

UNIT - IV

Nutrition Intervention Programmes

- Genesis, objectives and operation of nutrition intervention programmes in India — School lunch programme, CMNMP, ICDS, TINP organized by government for vulnerable sections of the population.

UNIT V

National, International and voluntary organizations to combat Malnutrition

- International Organisation : FAO, WHO, UNICEF Bank,
- National Organisation : ICMR, SSWB, NIN, NNMB, NIPCCD.

REFERENCES

- ShanthiGhosh, The feeding and care of infants and young_ children, Voluntary Health Association of India. New Delhi — 1992.
- ShanthiGhosh, Nutrition and Child Care, A Practical Guide. Jay Pee Brothers, Medical Publishers (P) Ltd., New Delhi, 1997.
- Government of India Integrated Child Development Services Scheme, Ministry of Education and Social Welfare, New Delhi, 1979.
- Rajammal P. Devadas, Nutrition and Nutritional Development. SaradalayaPress, Coimbatore, Tamilnadu, 1980.
- Prevention of Food Adulteration Act, 1985.

CORE SUBJECT- XV
DIETETIC INTERNSHIP

Hours/week : 4 **Credits:5**
Max marks : 100

OBJECTIVES

To enable students to gain practical experience in the management of a dietary department and patient counseling for a period of one month.

CONTENT

- Observation and Study of organisation and management of the dietary department.
- Understanding the medical history of the patients, study of case sheets, and diagnostic tests used, Nutritional Assessment of patients.
- Planning therapeutic diets and computation of nutritive value. Diet setting.

- Observation and study of
    a) Purchase storage and issue
    b) Production
    c) Service
    d) Evaluation and follow up
- Participation in diet counseling units. Experience in imparting diet counseling and understanding the records maintained in diet counseling units.

SEMESTER VI
ALLIED SUBJECT – II E
MULTIMEDIA

Hours of Instruction : T- 4

Credits : 4

OBJECTIVE

This paper is designed for the students to improve the skill in Multimedia.

UNIT - I

Introduction to Photoshop C S6.

UNIT - II

Working with Images

U**NIT-**III

Working with layers

UNIT-IV

Getting started with Flash C S6.

UNIT — V

Working with Animations and videos – working with Actionscript.

REFERENCES

- GurdyLeete and Ellen Finkelskein (2014) Flash 5 for Dumies ,2nd Edition, Tata McGraw Hill Publishing Company Ltd., New Delhi.
- Vikas Gupta (2016) Comdex DTP

Text Book

Comdex,Multimedia and Web Design Course kit by Vikas Gupta B.E.,D.P.P.S.,(London),D.S.M

SKILL BASED SUBJECT – VI
Fundamentals of Textiles & Clothing

Hours/week:2 **Credits:2**

Max marks:100

OBJECTIVES:

To enable students to

- Gain knowledge regarding the conversion of fibre into fabric.
- Understand the processes involved in spinning, weaving, finishing, dyeing and printing.
- Acquire knowledge in the selection, care and maintenance of textiles and garments.

UNIT I: Textile fibres and their properties

Fibre – definition, identification,classification,properties; Naturalfibres: cotton, linen, wool, silk. Man-made fibres: rayon, polyester, polyamide (nylon 6,6) acrylic, elastomeric fibres.
Yarns – definition, types – simple and complex, count and twist.

UNIT II: Weaving

Definition, parts and functions of loom.Classification : Basic weaves - plain, twill, satin and sateen.

Fancy weaves – pile ,dobby, Jacquard. Non-woven – knitting and felting.

UNIT III: Finishes

Definition and purpose. Types – basic finishes :singeing, bleaching, mercerizing, sizing, calendaring, tentering and sanforising; functional finishes-water repellent and water proofing, fire proofing, moth proofing.

UNIT IV: Dyeing, Printing

Dyes – Classification: natural and artificial; Printing: hand printing -block, stencil, tie & dye and batik; machine printing - screen and roller.

UNIT V: Clothing

Principles of Clothing, Socio psychological aspects of clothing; Factors influencing selection of clothing . Family Clothing.Care and maintenance of textiles and garments. Stain removal.

REFERENCE:

- Vilensky G., (1983) Textile Science, CBS Publishers and Distributors, Delhi.
- Corbman,P.B.(1985)Textiles-Fiber to Fabric(6th Edition), Gregg Division/McGrawHill Book Co., US.
- Joseph, M.L., (1988) Essentials of Textiles (6thEdition), Holt, Rinehart and Winston Inc., Florida.
- Vidyasagar, (1998) P. V., Handbook of Textiles, Mittal Publications.
  Rattan,J.B. (2001),Modern Textile Technology, Abhishek Publications, Chandigarh.
- Murphy,W.S (2002).,Elements of Fibre Science, Abhishek Publications, Chandigarh,
- VijayalakshmiYadla, SuchetaJasra, i(2005) Home Science, Kalyani Publishers, New Delhi
- Sekhri S., (2013) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi.

WEBSITE:

www.fibre2fabric.com
www.fibretofashion.com

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