

UNIVERSITY OF KERALA



Scheme and Syllabus
for
First Degree Programme in
Home Science

Under Choice Based Credit and Semester System
(2022 onwards)

**Submitted by the Members of Board of
Studies in
Home Science (Pass)**

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PREAMBLE

Home Science is a dynamic and ever growing field of education. It is an applied field built upon interdisciplinary studies comprising of Foods and Nutrition, Child Development, Resource Management, Textiles and Clothing and Extension & Communication. Each of these departments is also multi-disciplinary in nature dealing with the ‘art and science of living’. It orient students to acquire comprehensive knowledge and skill in all areas related to human mind, body and environment.

In the context of growing pressures in the work environment and external world, the family assumes a significant role in shaping the citizens of tomorrow. The family is the main factor which protects the individuals from all external forces and provides the right type of atmosphere for children to grow into strong and independent personalities. Home Science, then becomes the key subject in shaping the future course of our lives, as it equips the future citizens with relevant knowledge, competencies and prepares them to become efficient custodians of the nation’s future.

Home Science has the essential components to engage youth in teaching, research and advocacy for healthier families, communities and the nation. Through its five core areas, Home Science seeks to prepare individuals for their professional and personal life by developing their resources and capabilities. It also seeks to develop in them leadership skills, scientific approach to problem solving and sensitivity to local, national and global issues by giving them practical, on hand grass root level experiences. This course also intends to develop in the individuals an attitude to evaluate and value the folk and indigenous culture.

Home Science has contributed a great deal towards national development by training students to take up leadership roles in extension and community outreach programs. The students are encouraged to develop a scientific temper. Familiarizing them with the use of newer technologies, methods in family and community linkages and sustainable use of resources for human development are the hallmark of education in Home Science.

Home Scientists promote capacity building of individuals and communities for social and economic empowerment. A degree in Home Science opens up excellent career opportunities, while also equipping students with the skills needed to manage their home in a dynamic environment. Home Science works at a basic level by improving our outlook towards others. It inculcates values that help to become responsible person for the family and society.

Home science is an integrated field of study that provides scientific and systematic knowledge about various aspects of family living. It is an interdisciplinary field faculty of science that prepares its students to develop themselves with multiple vocational and career options. Home Science can be derived as ‘application of scientific knowledge in a systematic manner towards improving the quality of home and community life’.

PROGRAMME OUTCOMES

PO1. Analyse the role of Home Science to enhance the quality of life of individuals, families and communities.

PO2. Promote education not only to acquire knowledge but also to inculcate a sound philosophy for holistic living.

PO3. Capacitate to respond creatively and with a sense of responsibility to the contemporary needs of the society.

PO4. Excel in identifying methods for effective communication and develop problem solving competencies in life .

PO5. Explore and decide upon viable avenues of entrepreneurship plus career options in different facets of Home Science disciplines to be economically competent to face challenges.

PO6. Demonstrate ethical values in social applications.

PROGRAMME SPECIFIC OUTCOMES

PSO1	Understand the scientific application of the process of management in the judicious use of resources.
PSO2	Analyse the role of food and nutrition in creating a healthy community.
PSO3	Create responsible consumers and able designers.
PSO4	Analyse and apply research findings for the betterment of the society.
PSO5	Adopt and transfer the scientific innovations from lab to the community.
PSO6	Acquire professional and entrepreneurial skills for economic empowerment of self in particular and community in general.
PSO7	Appraise the concept, goals and areas of adjustment in marital relationships and within the family.
PSO8	Execute effectively the digital knowledge resources for their chosen course of study.
PSO9	Develop an understanding of concepts and basics of textiles and acquire skills in pattern making and garment construction.
PSO10	Identify the role of microbes in food spoilage.
PSO11	Understand the basic aspects of child development.

**COURSE STRUCTURE FOR
FIRST DEGREE PROGRAMME IN HOME SCIENCE**

SEMESTER I

Sl.No	Course Code	Course Title	Lecture	Practical	Credit	Unty Exam Hours	Evaluation	
							CE	ESE
1	EN1111	English	5	-	4	3	20%	80%
2	HN / ML 1111	Additional Language	4	-	3	3	20%	80%
3	EN1121	Foundation – I	4	-	2	3	20%	80%
4	PY1131.5//ZO1131 (T&P)	Complementary - I	2	2	2	3	20%	80%
5	BO1131//CH1131.5 (T&P)	Complementary–II	2	2	2	3	20%	80%
6	HS1141	Core course:Family Relations and Counselling	4	-	4	3	20%	80%
		Total	21	4	17			

SEMESTER II

Sl.No	Course Code	Course Title	Lecture	Practical	Credit	Unty Exam Hours	Evaluation	
							CE	ESE
1	EN1211	English	4	-	3	3	20%	80%
2	EN1212	English	5	-	4	3	20%	80%
3	HN / ML 1211	Additional Language	4	-	3	3	20%	80%
4	HS1221	Foundation – II Research Methodology and Informatics (Core)	4	-	4	3	20%	80%
5	PY1231.5/ZO1231 /(T&P)	Complementary – I	2	2	2	3	20%	80%
6	BO1231/ CH1231.5 /(T&P)	Complementary –II	2	2	2	3	20%	80%
		Total	21	4	18			

SEMESTER III

Sl.No	Course Code	Course Title	Lecture	Practical	Credit	Unty Exam Hours	Evaluation	
							CE	ESE
1	EN1311	English	5	-	4	3	20%	80%
2	HN / ML 1311	Additional Language	5	-	4	3	20%	80%
3	PY1132.5//ZO1331/ (T&P)	Complementary – I	3	2	3	3	20%	80%
4	BO1231/ CH1231.5/ (T&P)	Complementary –II	3	2	3	3	20%	80%
5	HS1341	Core - Child Development and Welfare	3		3	3	20%	80%
6	HS1342	Core - Child Development and Welfare (Practical)		2	1		20%	80%
		Total	19	6	18			

SEMESTER 1V

Sl.No	Course Code	Course Title	Lecture	Practical	Credit	Unty Exam Hours	Evaluation	
							CE	ESE
1	EN1411	English	5	-	4	3	20%	80%
2	HN / ML 1411	Additional Language	5	-	4	3	20%	80%
3	PY1431.5/ ZO1431	Complementary – I	3	2	3+4	3	20%	80%
4	CH1431.5/ BO1431	Complementary –II	3	2	3+4	3	20%	80%
5	HS1441	Core- Resource Management	3		3	3	20%	80%
6	HS1442	Core- Resource Management(Practical)		2	1		20%	80%
		Total	19	6	26			

SEMESTER V

Sl.No	Course Code	Course Title	Lecture	Practical	Credit	Unty Exam Hours	Evaluation	
							CE	ESE
1	HS1541	Housing and Interior Decoration	2		2	3	20%	80%
2	HS1542(P)	Housing and Interior Decoration (Practical exam 5 th Sem.)		3	3	3	20%	80%
3	HS 1543	Extension Management	3		3	3	20%	80%
4	HS 1544	Textile Science	2	-	2	3	20%	80%
5	HS1545(P)	Textile Science (Practical exam 5 th sem)		3	3	3	20%	80%
6	HS 1546	Basics of Food Science and Food Microbiology	3	-	3	3	20%	80%
7	HS1547(P)	Basics of Food Science and Food Microbiology (Practical exam 5 th sem)		4	4	3	20%	80%
8	HS1648	Project		2	0	3	20%	80%
9	HS 1551	Open Course to Other Streams-	3	-	2	3	20%	80%
9A	HS 1551.1	Fashion Designing						
9B	HS 1551.2	Geriatric Care						
9C	HS1551.3	Principles and Practice of Counselling and Guidance						
9D	HS1551.4	Food Science and Basic Cookery						
9E	HS1551.5	Public Health and Nutrition						
9F	HS1551.6	Entrepreneurship Management in Food Processing						
9G	HS1551.7	Catering Management						
9H	HS1551.8	Nutrition for Health						
9I	HS1551.9	Personality and Soft Skill Development						
		Total	13	12	22			

SEMESTER VI

Sl. No.	Course Code	Course Title	Lecture	Practical	Credit	Unty Exam Hours	Evaluation	
							CE	ESE
1	HS1641	Physiology, Nutrition and Dietetics	4	-	2	3	20%	80%
2	HS1642	Apparel Designing	3	-	3	3	20%	80%
3	HS1643	Communication for Development	3	-	2	3	20%	80%
4	HS1644 (P)	Physiology, Nutrition and Dietetics (Practical)		4	2	3	20%	80%
5	HS1645(P)	Apparel Designing (Practical)	-	3	2	3	20%	80%
6	HS1646 (P)	Communication for Development (Practical)		3	2	3	20%	80%
7	HS1648	Project	-	2	4		20%	80%
8	HS1661	Industry Based Course (Elective)	3		2	3	20%	80%
8A	HS1661.1	Early Childhood Care and Education (ECCE)						
8B	HS1661.2	Diet Assistants In Health Care.						
8C	HS1661.3	Cake Baking and Decoration						
8D	HS1661.4	Fruit and Vegetable Preservation						
		Total	13	12	19			
		GRAND TOTAL	106	44	120			

**CORE COURSE STRUCTURE OF THE
B. Sc HOME SCIENCE DEGREE PROGRAMME**

Sem	Sl. No	Course Code	Course Title	Instructional Hrs		Credits	Uty Exam Hrs	Evaluation	
				L	P			Internal	External
I	1	HS1141	Family Relations and Counselling	4	-	4	3	20%	80%
II	2	HS1221	Research Methodology and Informatics	4	-	4	3	20%	80%
III	3	HS1341	Child Development and Welfare	3		3	3	20%	80%
	4	HS1342	Child Development and Welfare (Practical)		2	1			
IV	5	HS1441	Resource Management	3		3	3	20%	80%
	6	HS1442	Resource Management (Practical)		2	1			
V	7	HS1541	Housing and Interior Decoration	2		2	3	20%	80%
	8	HS1542 (P)	Housing and Interior Decoration (Practical exam 5 th Sem.)		3	3	3	20%	80%
	9	HS1543	Extension Management	3		3		20%	80%
	10	HS1544	Textile Science	2		2	3	20%	80%
	11	HS1545 (P)	Textile Science (Practical exam 5 th sem)		3	3	3	20%	80%
	12	HS1546	Basics of Food Science and Food Microbiology	3		3	3	20%	80%
	13	HS1547 (P)	Basics of Food Science and Food Microbiology (Practical exam 5 th sem)		4	4	3	20%	80%
	14	HS1648	Project		2		3	20%	80%
	15	HS1551	Open Course to Other Streams	3		2	3	20%	80%
VI	16	HS1641	Physiology, Nutrition and Dietetics	4		2	3	20%	80%
	17	HS1642	Apparel Designing	3		3	3	20%	80%
	18	HS1643	Communication for Development	3		2	3	20%	80%
	19	HS1644 (P)	Physiology, Nutrition and Dietetics (Practical)		4	2	3	20%	80%
	20	HS1645 (P)	Apparel Designing (Practical)		3	2	3	20%	80%
	21	HS1646 (P)	Communication for Development (Practical)		3	2	3	20%	80%
	22	HS1648	Project		2	4			
	23	HS1661	Industry Based Course (Elective)	3		2	3		
		Total		40	28	57			

**CORE COURSE
SEMESTER – I
FAMILY RELATIONS AND COUNSELLING
Course code: HS1141**

No. of contact hours – 4/ week , 72/ semester

No. of credits – 4

80%

Internal evaluation: 20%

External evaluation:

University exam: 3hrs

Learning objectives

To equip the students with knowledge and skills in understanding people, families and community as a whole, and to understand human relation and to give necessary guidance and counselling at times of need.

To become acquainted with the concept, goals and areas of adjustment in marital relationships and within the family.

To make the student understand the importance of family interaction in the development of children.

To understand different critical situations affecting families and ways to tide over them.

To gain an understanding of the needs, problems and care of elderly.

Course Outcome

CO1: To relate the factors associated with successful marital life.

CO2: To get familiarized with the roles and functions of the family.

CO3: To identify the ways and means to strengthen the intra-family relationships.

CO4: To facilitate healthy ageing among elderly.

COURSE OUTLINE

Module I: Family

Family-definition, types (nuclear, joint, extended, Single parent family), functions, merits and demerits. Causes for the disintegration of joint family system in India.

Family Life cycle – stages and sub-stages (beginning, expanding, contracting).

Role of family in inculcating civic sense and values. (14 hours)

ModuleII: Marriage

Marriage- Meaning, significance, definition, functions. Factors associated with success in marriage. Marital adjustment and areas needing adjustment- in laws, sex, adjustment to mate, adjustment to parenthood, finance. Work participation-sharing.

(10 hours)

Module III: Contemporary Issues and Women Protection Laws

Contemporary Issues and Marital disharmonies : Infidelity, desertion, divorce, separation, alcoholism, death, suicide, disabilities, financial crisis, dowry victimization and violence against women. Legal aid and family court- Legal Protection of women - A brief introduction to Domestic violence Act and Dowry Protection and Prohibition Act.

(14 hours)

Module IV: Counselling

Counselling- definition, need and significance of counselling, basic skills for a good counselor, Areas of counselling- Mental health problems, pre-marital and post marital, family counselling, educational and career counselling.

(12 hours)

Module V: Sex education

Sex education- Need and importance. Small family norm, family planning.

(12 hours)

Module VI: Ageing

Characteristics, Issues during Ageing (physiological, economic, psychological, social and recreational), Care of the aged.

(10 hours)

REFERENCES

1. Devadas, R., and Jaya, N,(2010), A textbook of Child Development, Macmillan India Ltd.Delhi.
2. Jr.David, K., and Schacht, C,(2011), Choices In Relationships An Introduction To Marriage And The Family, Cengage Publishing Co.
3. Kaur, S., Kishore, J., and Singh, (2014), A. Comprehensive Textbook Of Elderly Care, Century Publications.
4. Nayak, A.K,(2009), Guidance &Counselling, A.P.H. Publishing Corporation.
5. Nijole. V. Benokaraitis, (2011), Marriages & Families, 7th edition, Phi publisher, Delhi.

6. Rainey, D., Shadrach, L., Nelson, B., and Schulte,J.,(1997), Preparing for Marriage, Gospel Light Publishers.
7. S.NarayanaRao, (2002),Counsellingand Guidance, 2nd edition, Tata MC Graw Hill, New Delhi.
8. Sister Mary Vishala,S,(2006), Guidance and Counselling. Chand & Company Pvt. Ltd., NewDelhi.
9. Suryakanthi.B,(1991), Child Development, Kavitha Publications, Gandhi Gram Tamilnadu.
10. Tuli, P., Bhasin, Neena,(2018), Guidelines for Ageing with Health, Grace and Dignity, Jaypee Brothers Medical Publishers; First edition, 4838/24, Ansari Road, Daryaganj, New Delhi-110027.

WEB RESOURCES:

- <https://wcd.nic.in-act>.
- <https://www.legalserviceindia.com>
- www.counselling.org/aca-community-professional-counselling.

CORE COURSE
SEMESTER I1
RESEARCH METHODOLOGY AND INFORMATICS
Course code: HS1221

No. of contact hours – 4/ week , 72/ semester
No. of credits – 4

Internal evaluation: 20%
External evaluation: 80%
University exam: 3hrs

Learning objectives:

- To review the basic concepts and functional knowledge in the field of informatics.
- To create awareness about social issues and concerns in the use of digital technology.
- To impart skills to enable students to use digital knowledge resource in learning.
- To orient the students on the various internet based knowledge repositories.

Course Outcomes:

- CO 1: To comprehend the basic concepts of science and Information Technology.
- CO 2: To infer on the steps in research in Home Science education
- CO 3: To design and analyze the practical application of various technology based applications in science and research.

COURSE OUTLINE

Module I – Science and Home Science Education

Type of knowledge - practical, theoretical and scientific knowledge. Information, Empiricism, Science disciplines.

Evolution and scope of Home science Education. Professional significance in learning Home science. (10 hours)

Module II –Research Methodology and Data Handling

Identification of the problem, review of related literature (functions and steps).

Sampling – meaning, types (Probability sampling-simple random.Non-probability sampling-convenient, purposive.

Hypothesis, - Null and Alternative.Variables- Dependent and Independent.

Types of data -Primary and Secondary.

Methods and tools of data collection - Observation, Interview, Questionnaire, Checklist, Attitude scale (Likert’s summated scale), Pilot study.

Data presentation: Tables, Graphs (Bar graph, Linegraph, Histogram and Pie-Diagram).

Research report writing. (10 hours)

Module III-Overview of Operating Systems

Overview of Operating Systems (Real time, Single-user single tasking, Single user multitasking, Multiuser multitasking)

Familiarization of Major application Softwares–

a) Word processing Software (Examples to be mentioned only*- MS Word, Word Pad, Open Office Writer, Corel Word, LaTeX)

b) Storage Applications –*Google Drive, One drive, Drop Box.

c) Spread sheet Applications- *Google sheet, Excel Sheets, Open office Calc.

d) Presentation Applications- *Powerpoint, Google slide, Open Office Impress.

e) Basic Image Editing Applications- *MS Paint, Open Office Draw, Gimp.

Internet as knowledge repository-*a) Open Source Learning Management Systems- Moodle, Google classroom, Go skills, Coursera , Udemy, SWAYAM.

b) Web conferencing platforms- *Google Meet, Zoom, WebEx, Bluebutton, Skype, Microsoft Teams.

c) Fun learning apps- *Quizizz, Hot Potatoes, PowToon, Kahoot, Padlet, Edmodo. (20 hours)

Module IV – Knowledge Skills for Higher Education

Academic search techniques(Favorites and bookmarks, search engines (google, subject directories, wikis), creating cyber presence (Instant messaging, podcasts, blogs, vlogs, webcasts, e-mail, group communication).

Basic concepts of IPR, Types of IPR- Patent, Copyright, Trade mark, Trade secrets.

Plagiarism and Plagiarism detection tools (familiarization of URKUND software, Dupli checker, Turnitin)

Academic services –INFLIBNET, Shodhganga, Shodhsindhu, e-Paatshala. (7 hours)

Module V – Social Informatics

IT & development.

IT threats - software piracy, Cyber crime, Cyber ethics, Cyber laws and Cyber addictions.

Health issues and guide lines for proper usage of computers and internet.

E-wastes and green computing.

(5hours)

Module VI – IT Applications and Computer Based Teaching Technology

IT application in the fields of medicine, healthcare, and education. Brief introduction to software's and IT applications specific to the field of Home Science- AUTO CAD, CAM, ENA, Adobe Illustrator and Page Maker. (20 hours)

Related Experiences: (Any two to gain practical understanding)

Prepare a presentation/ Creating a Quiz/ Online plagiarism checking of the assignments/ undertaking a course in any of the platforms/ hands on experience on any of the areas mentioned in Modules 3,4 and 6.(To be submitted for Internal Evaluation).

References

1. Alan Evans, Kendal Martin et.al. Technology in Action, Third Edition, Pearson Prentice Hall, 2012.
2. Alexis Leon & Mathews Leon, Introduction to Computers, First edition, Vikas Publishing, 2009.
3. Peter Norton, Introduction to Computers, (Indian Adapted Edition), Tata Mcgraw Hill, 2005.
4. V. Rajaraman. Introduction to Information Technology, Third edition, Prentice Hall, Delhi-110092, 2018.
5. Alexis Leon & Mathews Leon, Fundamental of information Technology; S Chand and Company Ltd, 2008.
6. Alexis Leon & Mathews Leon, Fundamentals of Information Technology, Second edition, Vikas publishing house, 2009.
7. Barbara Wilson, Information Technology: The Basics, Thomson Learning, Cambridge University Press, 1993.
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9. George Beekman, Eugene Rathswohl, Computer Confluence- Exploring Tomorrow's Technology, Fifth edition, Pearson Education, 2002.
10. Greg Perry, SAMS Teach Yourself Beginning Programming, Open Office Org, SAMS publishing, USA, 2002.

11. Hewitt, Paul G, Suzanne Lyons, John A Suchocki and Jennifer Yeh, Conceptual Integrated Science, Second edition, Pearson publisher, 2012.
12. John Ray, 10 Minute Guide to Linux, PHI, ISBN 81-203-1549-9 Methods for Teaching Science as Inquiry, Allyn& Bacon, 2009.
13. Newton R.G Joel, E and et.al. The Truth of Science: 2nd edition Bass, Harvard University press, 2000.
14. Ramesh Bangia, Introduction to Corel Draw X5, 2013.

WEB RESOURCES

- <https://swayam.gov.in/>
- <https://coursera.org>
- <https://quizizz.com/>
- <https://kahoot.it/>
- <https://padlet.com/>
- <https://hotpot.uvic.ca/>
- <https://new.edmodo.com/>
- <https://www.udemy.com/>
- <https://www.powtoon.com/>

CORE COURSE
SEMESTER –III
CHILD DEVELOPMENT AND WELFARE
Course code: HS1341

No. of contact hrs: 3/ week, 54/semester
No. of credits:3

Internal evaluation: 20%
External evaluation: 80%
University exam: 3hrs

Learning Objectives:

- To introduce the student to the excitement and challenges of studying children (from conception to adolescence)
- To impart basic knowledge on the principles and pattern of growth and development in children.
- To provide scientific knowledge about child-development, behavior and welfare, and to enable to improve the quality of life of the child, family and community.
- Examine and evaluate the role of play and its relationship to development at various stages.
- To help the students to understand childhood problems, the challenged children, their problems, special needs, care and management.

Course Outcome:

CO 1:To provide a strong basis for further studies and career in Child Development and encourage future applications to research studies in this domain.

CO 2:To understand the developmental milestones and identify behavior problems.

CO3:To make students aware of welfare programs/ services/ rights and all round developmental aspects of children.

COURSE OUTLINE

Module I: Introduction to Child Development

Child development - significance, scope,Growth and development- definition.Factors influencing growth and development, Importance of heredity and environment. (8 hours)

Module II: Prenatal Development and Neonatal Care

Prenatal development – conception, significance, stages of prenatal development, Factors influencing prenatal development.

Process of birth, Types of birth – normal, caesarean, breech and transverse.

Pre mature and LBW babies.

The neonate- characteristics, abilities and adjustments, reflexes, APGAR test.

Breast feeding – Advantages and disadvantages. Immunization. (10 hours)

Module III: Development of Infant to Adolescent

Mile stones in development.

Infancy, babyhood, early childhood and late childhood and adolescence -physical, motor, social,emotional, intellectual and language development during the above stages.

Adolescence - significance, characteristics, Peer influence and identity crisis.

(10 hours)

Module IV: Child Welfare and Preschool Education

Child welfare programs in India -ICDS, Child line service, child rights, Preschool education - objectives, types. Preschool personnel, preschool records.

Play- significance, types, values, Selection of toys. (8 hours)

Module V: Child Rearing Practices and Behaviour Problems

Child Rearing Practices of parents, Family's influence on the personality and behaviour development of children. Responsible parenthood (acceptance, rejection and over protection).

Behavioural problems- Thumb sucking, enuresis, temper tantrums, ODD (Oppositional defiant disorder), juvenile delinquency. (10 hours)

Module VI: Exceptional Children

Children with special needs - Physically handicapped, hearing impaired, visually impaired (characteristics, causes, prevention, care and treatment).

Mentally challenged - classification, characteristics, causes, prevention and care. ADHD, Learning disability-characteristics, types, Educational implications.

Gifted-definition, characteristics, education of the gifted. (8 hours)

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7. Patterson, C.J, (2009), Infancy and Childhood, International edition, McGraw Hill, New York.
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12. Swaminathan, M, (1998), The first five years: A critical perspective on early childhood care and education in India. Sage, New Delhi.

WEB RESOURCES:

- <https://www.mentalhealth.gov.behaviour-problems>.
- <https://raisingchildren.net.au.discipline-webmd>.
- <https://www.nagc.org>

**CORE PRACTICAL
SEMESTER –III
CHILD DEVELOPMENT AND WELFARE
Course code: HS1342**

No. of contact hrs: 2/ week, 36/semester

No. of credits: 1

Learning objective

- To familiarize students with community and child welfare program centers.
- To get practical knowledge in child development and special education area.
- To enhance creativity and improve career prospects with a better understanding of early childhood theory and practice.

Course outcome

CO 1:Apply development theory to the analysis of child observations, visits and interviews.

CO 2:To understand the need and significance of early childhood care and education.

CO 3:To develop creative teaching and PPT presentation skills.

COURSE OUTLINE

(ANY FIVE)

1. Visit to any one substitute child care centre / preschool / children's home / orphanage/ special schools.
2. One day participation in the activities of an anganwadi and report the experience.
3. Socio metric study of children / Adolescence.
4. Study on common adolescence problems / or any common problems faced by a girl /child / woman – (Interview 10 students)
5. Experience in using a growth chart (record the height and weights).
6. Discuss the behaviour problems in early childhood in a school preschool set up (write a case study report) (Visit a nearby Pre –School)
7. Make a list exhibit or exhibit Toys, gifts, clothes, first aid box, books, stories songs etc. suitable for each stage of development.
8. Make a list of toys and vocational activities suitable for children with problems on physically or mentally challenged children. Preparation of indigenous low cost toy.
9. Teaching children a skill / a craft introduce a hobby or any creative work.
10. One day participation in the activities of any one institution for the challenged children.
11. O.H.P. presentation / power point presentation on any topic of your interest (from the syllabus).

*** Students shall maintain records of each work, which shall be internally and externally evaluated along with the record of Basics of Food Science and Food Microbiology (HS 1547) during the University Practical Examination of Semester V.**

**CORE COURSE
SEMESTER-IV
RESOURCE MANAGEMENT
Course code: HS1441**

*No.of contact hrs: 3/ week, 54/semester
No.of credits:3*

*Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs*

Learning Objectives

- Understand the principles of management and their application in the family context.
- Acquire scientific skills in the management of family resources.
- Recognize the significance of family resource management to enhance their quality of life.
- Develop skills in identifying , creating , selecting and using available resource judiciously with emphasis on maximization and conservation

Course Outcomes:

CO 1: Understand the principles of management and its application in day-to-day life.

CO 2: Acquires scientific skills in the management of family resources.

CO3: Realises the significance of family resource management and its application for the enhancement of quality of life.

CO 4: Implants skills in identifying, creating/selecting and using available resource judiciously with emphasis on maximization and conservation.

COURSE OUTLINE

Module I :Introduction to home management

Management Process - Steps in Management.

Decision Making – Types and significance, steps.

Motivating factors -Values, goals, standards, attitudes.

Qualities of a good home maker (6 hours)

Module II: Family Resources

Meaning and classification.

Characteristics of resources

Factors influencing resource management. (5 hours)

Module III: Time Management

Significance of time management.

Time Schedule – definition, factors to be considered before making a time plan, steps in the preparation of a time schedule and evaluation of the time schedule.

Tools in time management: Peak load, work curve and time norm. (7 hours)

Module IV: Energy Management

Significance of energy management .

Body Mechanics - definition and principles.

Work simplification – definition ,Mundell’s classes of change .

Work simplification techniques-Pathway chart, Process chart and Operation chart .

Fatigue-Physiological and psychological, causative factors and alleviating techniques.

(12 hours).

Module V :Money Management

Family income – Types and sources

Family Budget–Definition, Types and steps in making family

budget Financial records- Definition, purpose and types

Savings and investments- Meaning, saving institutions and the different schemes(post office, bank and LIC).

Home maker as a consumer ,Tips for wise buy-man-ship, consumer problems, Rights and responsibilities of a consumer, consumer protection, consumer redressal cell & procedures.

(12 hours).

Module VI: Equipments in the Home

Electrical,indigenous equipments and renewable energy devices.

Classification, selection, use and care of popular electrical equipments – micro-wave oven, refrigerator, mixer grinder, OTG, air fryer, washing machine and vacuum cleaner.

Indigenous equipment –Janatha refrigerator and hay box cooker.

Renewable energy device- solar cooker.

Conservation of biomass fuel-biogas and smokeless choolah. (12 hours)

REFERENCE

1. Varghese M. A. Ogale. N. N and Srinivasan. K. (2001), Home Management, New Age International (P) Ltd., New Delhi
2. Mullick P. (2000) Text book of Home Science, Kalyani Publishers, Ludhiana.
3. Sylvia M. Asay Tami James Moore (2017) Family Resource Management, Sage Publications, USA.
4. Deacon, R.E. Fireough .R.M.(1981) Family Resource Management principles and applications, Ally & Bacon Boston
5. Goel, P.K.&Sarma.K.P.(1996) Environmental Guidelines and standards in India, Jaipur, Techno science.
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9. Wilson.P.(1981) Household Equipment Selection and Management, Houghton Mifflin Co. Inc. New York
10. Nambiar R.K.(2007) Text book of Environmental Studies, SCITECH Publication, New Delhi.
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**CORE PRACTICAL
SEMESTER IV
RESOURCE MANAGEMENT
Course code: HS1442**

**Practical: 2 hrs / week
No. of credits: 1**

**University exams: Evaluation of record along
with the record of Housing and
Interior Decoration (HS1542) of Semester .**

Learning Objectives

1. To familiarize the students with the available resources, their uses and conservation.
2. To enable the students to utilize resources in a prudent manner.

Course Outcome

CO1: Understand the role of family budget in managing family income.

CO2: Execute time management in life.

CO3: Implement waste management through the preparation of utilization objects out of waste materials .

COURSE OUTLINE

1. Preparation of time schedule for three consecutive days-two working days and one holiday.
2. Assessment of maximum and normal working heights in horizontal and vertical plane.
3. Determination of comfortable working height of any four household activities.
4. Preparation of family budget (proposed, actual and evaluation).
5. Demonstration on the use and care of any two popular equipments.
6. Preparation of a utilization object out of waste materials.

*** Students shall maintain records of each work, which shall be externally evaluated along with the record of HS1542 Housing and Interior Decoration during the University practical examination in Semester V.**

CORE COURSE
SEMESTER –V
HOUSING AND INTERIOR DECORATION
Course code: HS1541

No of contact hours : 2/week, 36/semester
No. of credits: 2

Internal evaluation: 20%
External evaluation:80%
University exams: 3hrs

Learning objectives:

- To understand the fundamentals of house planning and space articulation.
- To initiate students into basic spatial planning.
- To use and understand the elements and principles of Design
- To gain the basic knowledge of furniture arrangement and furnishing the residential space
- To understand the fundamentals of house planning

Course outcome:

CO1: Develops basics skills for a career option in Interior Design.

CO2: Develops basic drawing skills.

CO3: Produce design compositions and develop presentation skills.

CO4: Develop space planning using basic furniture layouts.

CO5: Show competency on visual scale, proportion, balance, rhythm, emphasis.

COURSE OUTLINE

Module I: Housing

Functions of house, selection of site, Principles to be considered while planning a house, House plans for different income groups, planning and grouping different rooms, storage areas and cabinet in the house

Kitchen designs - types of kitchen - working areas- work triangle (6 hours)

Module II: Introduction to Interior Design

Importance and need of Interior decoration

Design- Definition –classification -Types of Design, requirement of a good structural and decorative design

Elements of Design- Line,form colour, texture, space and light.

Principles of Design - Proportion, balance, rhythm, emphasis and harmony- its application to interiors.

Colour in interior- Importance, Qualities of colour, Colour systems-Prang colour system, Effects of colour, Colour planning and design. (7 hours)

Module III: Furniture and Furnishings

Furniture—Importance, types, factors to be considered while selecting furniture, furniture arrangement for different rooms. Furnishings-Types– Curtain styles, Rugs and carpets, care and maintenance of rugs and carpets (7 hours)

Module IV: Flower Arrangement

Different types & styles in flower arrangements –Traditional (Vertical, Horizontal, Circular, Triangular, Fan shaped, Crescent and Hogarth)Oriental or Japanese (Ikebana, Moribana, Chabana, Nageire and Rikka) .Method of preservation of flowers and foliage.

Bouquet making – bridal bouquet (basket, hanging and posy)

(7 hours)

Module V: Accessories

Importance, classification, accessories selection and arrangement.

(4 hours)

Module VI: Lighting

Importance of good lighting, Types of lighting - Natural & Artificial lighting .Types of artificial lighting –ambient, task and accent lighting, lighting requirements for different rooms.

(5 hours)

REFERENCE BOOKS:

- Havanovich Inc. - Alexander N.J., Mercoust Brace (1972) The Art of Interior Design.McMillan& Co. New York
- -Ball, Victoria K 1655 (1980) Designing Interior Environment.
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- Wills and Boons Ltd- Graham L (1982) Lighting your home
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- Nielson K.J. (1990) Colour in Interior Design, McGraw Hill, New York
- Pile J.F (1975) Art of Interior Design, Indica publishers, Delhi
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- Architectural Design, Earnest Pickering
- Francis D.K.Ching, Architecture, Form, Space and Order
- ShrishVasantBapat, Basic Design & Anthropometry
- ShirishVasatBapat, Living Areas – Internal Spaces
- Halse, Use of Colours in Interiors
- Francis D.K.Ching, Interior Design Illustrated
- Agan.T, The House- Its plan and Use
- Gupta M.K., 2005, Nabhi's Practical Handbook on Building Construction, 4th Edition, A Nabhi Publication.
- -Kumar, Sushil, 2008, Building Construction, Standard Publishers.

**CORE PRACTICAL
SEMESTER –V
HOUSING AND INTERIOR DECORATION
Course code: HS1542**

**Practical Hours : 3 hrs/week
No. of Credits: 3**

**Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs**

Learning objectives:

- To initiate students into basic spatial planning.
- To improve and enhance both the visual and communicative presentation skills
- Develop basics skills for a career option in Interior Design

Course outcome:

CO1: Understand the elements and principles of design.

CO2: Gain basic knowledge of furniture arrangement and furnishing the residential space.

COURSE OUTLINE

MODULE I: Introduction to home science its meaning and components

MODULE II :Housing and equipment– a)house plans for three different income groups –
LIG,HIG, MIG, Kitchen planning - Work triangle, Types of kitchen – U shaped, L shaped,
Two walled, One walled, Island and peninsular kitchen.

MODULE III: Interior Decoration

- a) Types of design
- b) Elements of design
- c) Principles of design
- d) Colour
- e) Furniture arrangement in any two rooms (preparation of samples for record)
- f) Window treatment (any six)
- g) Flower arrangement –Traditional and any three Japanese arrangement.
- h) Bouquet making- paper cuttings of basket, hanging and posy bouquet.
- i) Digital card designing

*** A record of the entire practical shall be maintained and submit for internal and external evaluation along with the Resource management record of Semester IV for the University Practical examination which shall be conducted at the end of Semester V.**

FOR UNIVERSITY PRACTICAL EXAMINATION

1. Application of color in the given picture.
2. Bouquet making .(Any one –posy/hanging/ basket bouquet)
3. Flower arrangement – Traditional (fan shape, vertical ,triangular)
4. Prang colour wheel (Illustration)
5. Kitchen plans (U-Shaped, L-Shaped, One –Walled and Two- Walled)
6. Furniture arrangement in bed room, drawing and dining room
7. Identification of the given pictures – window treatment, house plans, flower arrangement, colour harmonies

CORE COURSE
SEMESTER –V
EXTENSION MANAGEMENT
Course code: HS1543

No. of contact hrs: 3/ week ,54/ semester
No of credit:3

Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs

Learning Objectives: This course aims to -

1. Understand the concept of Extension and the role of an Extensionist in Community Development.
2. Analyze the functioning of Panchayat Raj and constitutional amendments related to the same.
3. Plan, Design and Evaluate community development programmes on developmental issues.

Course Outcome:

CO1. To organize skills in identifying the needs and interest of the community.

CO2. To demonstrate the ability to develop, implement and constructively evaluate programme and evaluation plans.

CO3. To identify the role of NGOs in community development.

COURSE OUTLINE

Module I :Extension Education- Definition, Meaning, Need, Principles and Philosophy.

Difference between Formal Education and Extension Education. Qualities of an Extensionist

.Home Science Extension and its contribution towards the development of community.

(5 hours)

Module II : Community Development-definition, objectives, History of Community

Development and Extension Programmes in India (Programmes during Pre Independence, Post Independence, NES, CDP, introduction to Panchayat Raj).Community Development set up –at the National ,State, District, Block and Village levels-role of functionaries in the block.

(12 hours)

Module III: Democratic Decentralization- PanchayatiRaj-meaning,set-up and functions. Three tier system.Indian Constitutional Provisions for Rural Development and Panchayat Raj- Article 11 and 12th Schedules of the Constitution- 73rd and 74th Amendment Acts. Insights into Human Rights in Indian Constitution (brief note) (10 hours)

Module IV: Programme Development in Extension -Principles of Programme building,criteria of a good programme, Programme Development Cycle and its components.Plan of work-components of a plan of work, developing a plan of work, factors to be considered in planning of work. (12 hours)

Module V: Extension Evaluation - Methods and Tools for Evaluation. PRA Tools and techniques in Evaluation- Focus group Discussion, Social Mapping, Time line, Transect Walk. (9 hours)

Module VI: Non-Governmental Organizations in India – Meaning, Importance and Functions of NGO. Concept of Self Help Groups –Objectives, stages of SHG’s.An understanding of the working of Kudumbasree in Kerala. (6 hours)

RELATED EXPERIENCE (ANY ONE- Report to be maintained in the Communication record at Semester VI)

1. Visit to a neighboring Community and plan a five day programme on various issues related to community development (Management of Waste/ Immunization/ Awareness on Personal Hygiene and Sanitation/ Preparation and Management for Disasters and Pandemic / Legal literacy for Women) to familiarize the students to understand the role of Extension Worker in Community Developmental Activities.
2. Conducting an Interview with a Self Help Group members / NGO and prepare a report with the help of any one Evaluation Method studied.
3. Visit to a Self Help Group /NGO and understand the functioning of it and reporting the same.

REFERENCES

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3. Dahama.O.P and Bhatnagar .O.P [1988] Education and Communication forDevelopment, New Delhi, Oxford and IBH Publishing Co.Pvt .Ltd.
4. Patnayak, Ram [1990] Rural Development in India, New Delhi, VikasPublishingHouse.
5. Jain.Gopallal[1997]RuralDeveloment, Jaipur, Mangal Deep Publications.
6. Waghmare, S.K[1980] Teaching Extension Education, PrasantPublicationVallabha,Vidhya Nagar.
7. S.V.Supe. An Introduction to Extension Education , Oxford and IBH Publishing Co. , Pvt. Ltd. New Delhi.
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11. <https://www.kudumbashree.org/>
12. <https://www.ugc.ac.in/oldpdf/modelcurriculum/human.pdf>
13. https://niu.edu.in/sla/online-classes/Amartish-Kaur_Human-Rights.pdf
14. <https://www.jetir.org/papers/JETIR1905T46.pdf>
15. https://www.legalserviceindia.com/articles/ud_human_rights.htm

JOURNALS

1. Indian Journal of Extension Education
2. Journal of Extension Education
3. Indian Journal of Home Science

**CORE COURSE
SEMESTER V
TEXTILE SCIENCE
Course code :HS1544**

*No of contact hrs:2/week ,36/semester
No of credits:2*

*Internal evaluation: 20%
External evaluation : 80%
University exams: 3hrs*

Learning Objectives:

- Obtain a broad understanding of textiles
- Get acquainted with the properties and uses of various textile fibers.
- Develop the skills for identification of fibers and fabrics available in the market
- Understand different types of yarns, weaves and finishes.
- Develop skills in making wise selection of textiles.
- Learn the methods of dyeing, printing, and finishing of fabrics.

Course Outcomes:

- Develop an understanding of concepts and basics of textiles.
- Develop critical understanding of the techniques of yarn and fabric manufacture.
- Identify the fibers, yarn and fabrics for its appropriate use.
- Develop the skills of different dyeing and printing and finishing of textiles for specific use.

COURSE OUTLINE

Module I: Study of fibers- Classification of textile fibers, Production properties and uses of Textile fibers-Cotton, jute, wool, silk, rayon, nylon and polyester. Blends, methods of identification of textile fibers. Study of yarns-Definition, Process of making fiber into yarn- Hand, Mechanical, Chemical Classification of yarns- Types, size, Twist.

(8 hours)

Module II: Fabric structure- Weaving-Loom parts and its operations, Preparation of yarn for Weaves -Basic weaves (plain, twill, Satin), Fancy weaves- (Pile, Jacquard, Dobby, Leno, Clip spot, Swivel)

(4 hours)

Module III: Characteristics of woven fabrics- Warp & Weft, Grain, Selvage, and Thread Count, Balance, Labeling-Importance of labeling.

(2 hours)

Module IV: Other methods of fabric construction-Knitting-properties,Types-weft knitting(Purl, Plain, Rib),Warp Knitting(Tricot,Raschel,Milanese)

Felting-Procedure, properties and uses.

Lace making-Uses and types of lace(Macrame lace,Bobbinlace,Nottingham lace).Laminating, Net, Bonding-Procedure properties and uses.Braiding. (8 hours)

Module V: Dyes and dyeing: Classification of Dyes- Natural, Artificial-acid, Basic, Vat, Azoic, Sulphur, Mordant. Methods of dyeing-stock, yarn, Piece, cross, Union Dyeing. Types of resist dyeing (Tye and Dye, Batik)

Printing-Hand, block, roller, screen, flock, discharge, stencil, spray Painting. (8 ours)

Module VI: Finishes-Definition, purpose, classification-Mechanical

finish(Bleaching,calandering,Sanforizing,Beetling,Sizing,weighting,schenerizing,crepe)

Chemical Finishes (Mercerization,Creping)Special Finishes (Waterproofing, flame proofing and anti-bacterial finish. (6 hours)

Visit to Mills-Weaving / Spinning / dyeing.

REFERENCES

1. Corbman.B.P(1983)FibertoFabric,Internationalstudent'sedition,SingaporeMcGr
aw hills booksco:
2. Gokarneshan. U. (2004) Fabric structure and design, New Age
Internationalpublishers.
3. Kate Well's Fabric Dyeing and Printing, Conran Octopus
4. Smith J.L. (2003) Textile Processing, Abhishek Publications,Chandigarh.
5. Pellow.C.W(2000)DyesandDyeing,AbhishekPublications,Chandigarh
6. Nancy.Belfer Designing Batik and Tie&Dye.NIFT
7. Marsh.J.T An Introduction to Textile Finishing, B.I,Publications.
8. Marjory L. Joseph, Introductory Textile Science, Holt Rinehart and Winston,
NewYork
9. SusheelaDantyagi, Fundamentals of Textiles and their care, Orient Winston, NewYork
10. 10.Hess, Textile fibres and their Uses, Oxford IBH Publishing Company, NewDelhi.

**CORE- PRACTICAL
SEMESTER V
TEXTILE SCIENCE
Course code: HS1545**

**Practical: 3 hrs/ week
No. of credits: 3**

**Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs**

Learning Objectives:

- Develop the skills for identification of fibers and fabrics available in the market
- Understand different types of weaves
- Develop skills in making wise selection of textiles.
- Learn the methods of dyeing and printing, of fabrics.

Course Outcomes:

- Identify the fibers, yarn and fabrics for its appropriate use.
- Develop the skills of different dyeing and printing of textiles for specific use.

COURSE OUTLINE

Module I: Identification of different fibers by following two methods i.e. microscopic test and burning test (cotton, silk, polyester, nylon, wool, rayon)

Module II: Identification of fabric structure- Basic weaves-prepare point paper samples for all the basic weaves- plain, twill ,satin (one sample from each). Fancy weaves- pile, dobby, jacquard, leno, clip spot, swivel,(Collect samples for record.)

Module III: Standard construction process-basic stitches (4), decorative stitches (10), seams (3) and seam Finishes (2)

Module IV: Prepare samples for - Block, Tie & Dye, Batik, Fabric painting, Flock, Stencil printing, Spray painting, (any five)

Module V:Collection of different types of labels (Any three)

Reference

- Booth, J.E. (1996). Principles of Textile Testing. New Delhi: CBS Publishers & Distributors Pvt. Ltd.
- Corbman, P.B. (1983). Textiles: Fibre to Fabric. McGraw-Hill Publishers.
- Collier, B.J., & Epps, H.H. (1998). Textile testing and analysis. Prentice Hall Publishers.
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CORE COURSE
SEMESTER –V
BASICS OF FOOD SCIENCE & FOOD MICROBIOLOGY
Course code: HS1546

No. of contact hrs: 3/ week ,54/semester
No. of credits: 3

Internal evaluation: 20%
External evaluation: 80%
University exams:3hrs

Learning objectives:

- Impart knowledge on composition of various food stuffs
- Familiarize students to changes occurring during processing and cooking
- Enable students to use the theoretical knowledge in various food processing preparations and technology.
- Familiarize students to the various tests and standards for quality assessment in terms of food safety and food adulteration.
- To understand role of micro organisms in food processing

Course Outcomes:

CO1: Identify and explain nutrients in foods and its health significance

CO2: Describe different methods of cooking and ways to prevent nutrient loss

CO3: Apply principles of food preservation

CO4: Understand adulterants in foods and importance of nutrition labelling

CO5: Understand spoilage in common foods, food borne diseases and intoxications

COURSE OUTLINE

Module I: Introduction to Food Science

Definition and classification of foods

Functions of food

Objectives& methods of cooking (merits and demerits) (6 hours)

Module II: Cereals and Millets, Pulses and legumes

Structure of wheat

Cereals- Nutritive value and composition

Types of cereals and millets, Processed cereals (Ready to eat cereals)

Effect of moist heat on starch -Gelatinisation (definition), factors affecting gelatinisation.

Effect of dry heat on starch - Dextrinisation

Methods of improving nutritive value of cereals (parboiling, fermentation, malting)
Microbial spoilage of cereals- General spoilage, Spoilage of bread
Pulses or Legumes– Types, Nutritive value
Methods of improving nutritive value (sprouting/germination, fermentation),
Lathyrism, Aflatoxins in legumes (10 hours)

Module III: Vegetables, Fruits and Spices

Vegetables and Fruits- Classification and composition
Effect of cooking on nutritive value of vegetables
Pigments in fruits and vegetables - chlorophyll, carotenoids, flavonoids.
Enzymatic browning
Spoilage in Vegetables- Bacterial soft rot, Rhizopus soft rot, Alternaria rot, Blue mould rot,
Watery soft rot, Sliminess or souring
Spoilage in fruits- Spoilage due to yeasts
Spices – definition, medicinal value of commonly used spices (Turmeric, Pepper, Ginger,
Cardamom) (10 hours)

Module IV: Milk and Milk Products, Meat, Fish, Egg and Poultry

Milk - Nutritive value, Processing–Pasteurization and homogenisation
Milk products–non-fermented (skimmed milk, evaporated milk, condensed milk,
reconstituted milk) and fermented (cheese)
Spoilage of Milk, Butter and Cream
Fish – Nutritive value, selection of fresh fish
Spoilage in fish- Oxidative, enzymatic and microbial spoilage
Egg – Nutritive value, structure, Quality of egg, Role of egg in cookery
Meat - Nutritive value. Ageing, tenderizing, rigor mortis, Factors affecting tenderness of
meat. Spoilage in meat- Fungal spoilage- Stickiness, Black spot, White spot, Green spot, Off
odour and off taste. Anaerobic spoilage- Souring and putrefaction. (10 hours)

Module V: Fats and Oils

Nutritive value, Uses of fat in food preparation
Fat deterioration and antioxidants
Emulsions – definition, types (6 hours)

Module VI: Food Preservation, Food Adulteration, Food Borne Diseases and Intoxications

Food Preservation- Principles, Methods of food preservation –Physical and Chemical

Food adulteration - Meaning, types, common food adulterants

Nutrition Labelling- Definition and importance.

Food Borne Diseases and Intoxications- Physiology of common microorganisms in food industry

Staphylococcal poisoning, Botulism, Salmonellosis (Typhoid), Shigellosis (Bacillary dysentery), Hepatitis A, Cholera. (12 hours)

REFERENCES:

1. Anna.K.Joshua, Microbiology, Popular Book Depot, Madras – 15.
2. Barnes and Noble, Bacteriology – Principles and practices.
3. Belitz H D and GrochW(1999)Food Chemistry. Springer New York
4. Bowers, J (1992): Food Theory and Applications, 2nd MacMillan Publishing Co., New York.
5. Brow A(2000)Understanding food
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7. Charley H(1982)Food Science. Ed 2.John Willey & Sons New York.
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12. Parker R(2000) Introduction to Food Science. Delmer, Thompson co.Delma.
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14. Pommerville C. Jeffrey, (2004)Fundamentals of Microbiology, 7th Edition Ramesh K. Vijaya (2007), Food Microbiology, MJP Publishers, Roday, S (1999) Food Hygiene and Sanitation, 1st Edition, Tata McGraw Hill, New Delhi.

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19. Tindall H D(1983)Vegetables in the tropics. Mac Millan Press London.

CORE PRACTICALS
SEMESTER –V
BASICS OF FOOD SCIENCE & FOOD MICROBIOLOGY
Course code: HS1547

No. of contact hrs: 4/ week
No. of Credits:4

Internal evaluation: 20%
External evaluation:80%
University exams:3 hrs.

Learning objectives:

- To familiarize the students with changes occurring in foods as a result of cooking and processing
- Enable the students to get practical knowledge in various applications and preparations of foods
- Enable the students to understand the role of dietitian

COURSE OUTCOMES:

CO1: Plan and standardize novel recipes

CO2: Prepare recipes applying the principles of food science and quantity cookery

CO3: Identify monosaccharides, disaccharides and proteins in unknown solution

CO4: Analyze Calcium, Vitamin C and Lactose in foods

COURSE OUTLINE:

Module I :Weights and measures-commonly used foods.

Module II :Preparation of selected recipes of cereals, pulses, vegetables, milk, meat, fish, egg and poultry.

Module III :Stages of sugar cookery-preparation of different products. Preparation of jams jellies and squashes.

Module IV :Effect of heat, acid and alkali on vegetable pigments, Enzymatic browning.

BIOCHEMICAL ANALYSIS

Module V. Qualitative analysis of carbohydrates and proteins(mono and disaccharides).

Module VI. Estimation of Calcium, Vitamin C and Lactose.

OPEN COURSE FOR OTHERS
SEMESTER V
FASHION DESIGNING
Course code:HS1551.1

No. of contact hrs: 3/ week, 54/ semester
No. of credits: 2

Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs

Learning Objectives

- To gain knowledge in fundamentals of fashion
- To recognize the theories related to fashion
- To gain practical knowledge in illustrating on croquis and illustrate details on croquis.
- To enable the students to develop skills in apparel designing and construction

Course Outcome

CO1: Understand various techniques related to drafting, draping, and constructing of garments.

CO2: Develop understanding regarding the fashion movement and consumer behavior.

COURSE OUTLINE

Module I: Fashion interpretation

Fashion origin, customer from medieval to modern world. Factors favoring and retarding fashion. Fashion characteristics, terms, cycle, and role of fashion in garment industry.

(10 hours)

Module II: Tools and equipments

Measuring, marking, cutting, pressing, and finishing. Sewing machine-different types, problems and remedies.

(8 hours)

Module III: Psycho aspects of clothing

Clothing and wears, Personality factors and clothing choices.

(5 hours)

Module IV: Pattern making

Knowledge of basic process of garment construction-Taking body measurements, Standard measurement chart, drafting of basic pattern set (Basic bodice front, back, basic skirt back,

front, and sleeve). Pattern alteration-Principles and techniques used for manufacturing basic pattern set. (11 hours)

Module V: Fashion illustration

Definition, importance and role of Fashion illustration and Specification drawing. Calculation of fabric for different garments according to size, style and design. Computer operation knowledge of related soft wares. (10 hours)

Module VI: Fashion Merchandising

Definition, fashion marketing concepts, fashion .Consumer behaviour, Fashion life cycle. Five principles of fashion. Marketing of Products –advertising, exhibition. (10 hours)

RELATED EXPERIENCES

- Stages in sketching – free hand drawing, Object drawing –out lines and
- Proportion, perspective, light and shade.
- Development of croquis – Drawing 8 head croquis, frontal, 3/4 and back portion
- Dressing up croquis in various silhouettes. Study of facial features & hair styles
- Specification drawing-studying the basic styles of necklines, collars, sleeves, cuffs,coats, skirts, jackets, etc; Learning about design features for utility and decorative purposes.
- How to take body measurements
- Basic construction processes – basic stitches, decorative stitches, seams and seam finishes, hems, plackets, fullness, fasteners, bias and its applications, neck line finishes, collars and sleeves. Dart manipulation-slash and spread, pivotal transfer technique
- Drafting and garment construction: Basic skirt, sari petticoat, A-line frock (5yrs)Skirt(5yrs), Kameez and salwar (full size), Cholly (full size).Variation of any one of the basic garment.
- Skill training (soft toys, paper bags, cloth bags, leather bags, ornamentation any three)
- Familiar with Adobe photo shop/ Coral draw, Adobe Illustrator.

VISIT:

Visit to a garment industry and submit a report containing the steps involved in

1. The production of a garment in an industry.
2. Survey on different types of fibers, yarns and fabric (any 7)
3. Survey on types of machines (industrial and domestic)
4. State wise assignment .The students in groups should conduct a detailed study on
5. life styles, cultural heritage, food and living habits of the various states in India.
6. they should present this project by setting up ambiance of the state and dress in the
7. regional attire.A record of the entire above practical must be maintained.

***A record of the entire related experiences and a report on visits should be maintained and submit for internal evaluation.**

REFERENCES

- Armstrong, Helen Joseph , Pattern making for Fashion Design, Harper & Row,

Publications

- E.Rolfo Kopp&Zelin , How to Draft Basic Pattern, Fair child Publication Inc.
- Gerry Cooklin, Garment Technology for Fashion Designers, Book Link
- ElizabettaDurdi, Figure drawing for fashion Design, The Pepin TizianaPaci Press.
- Claire B.Shaeffler, High Fashion Sewing Secrets from the World's Rodale BestDesigner's
- Mary Mathew's , Practical Clothing Construction, Part II, Bhattaram's Reprographics (P)
- Ltd, Chennai
- Black Well (1988) The Technology of Clothing Manufacture, Scientific Publications
- Hill house, M.S and Dress Design-Draping and Flat Pattern, London. Mansfield, E.A.
- Riter.J.(1998) Hand Book For Fashion Designing, Best Drafting Techniques, Mitalpublications.

OPEN COURSE FOR OTHERS
SEMESTER V
GERIATRIC CARE
Course code:HS1551.2

No. of contact hrs: 3/ week , 54/ semester
No. of credits: 2

Internal evaluation:20%
External evaluation: 80%
University exams: 3hrs

Learning objectives:

- To develop knowledge on basic problems in geriatric care.
- To develop knowledge in providing quality service in hospitals, old age homes & home nursing.
- To develop knowledge in nutritional, physical and mental care for aged.

Course Outcome

CO1:Understand the skills required in geriatric management.

CO2:Identify the service and programmes for the aged.

Course Outline

Module I: Basics of geriatric care

Social dimensions of geriatric care, Emergence and scope of gerontology and elderly care. Historical perspective, demographic trends in India. (6 hours)

Module II: Aging process

Biological and physiological aspects; Physiological aspects; Social aspects; Social status, retired status, single status, economic status, security, guide and teacher, social adjustment and recognition. (10 hours)

Module III: Adjustment patterns and changing life styles in old age

Family patterns in later life, Changing roles and the aging family, conjugal; Husband wife relations in old age; Sexual adjustment; Retirement years and adjustment; integral family relations; Grandparenthood; widowhood /singlehood; Alternative lifestyle; Second marriage in the later life. (10 hours)

Module IV: Health care for Elderly Physical, mental, emotional, & and spiritual. Mental ability and behavior of elderly, dementia and caring techniques, Nutritional care diet management. (8 hours)

Module V: Skills in geriatric management

Role of care givers. Problems of care givers, conflict, management within the family .Identifying potentialities and productive engagement of the elderly. Techniques of effective communication with elderly, Role of counseling in geriatric care.

(10 hours)

Module VI: Service and programmes for Aged

Categories of services: health, leisure time activities, : institution for aged, Day care centers; Economic programmes; Reengagement after retirement, retirement pension, death cum retirement gratuity, provident fund, health measures, Insurance schemes, investments and property. Role of the state and voluntary organizations. Norms and procedures in the organizations of the old age homes and day care centers for aged.

(10hours)

RELATED EXPERIENCES;

- Visit and report of old age centers / homes.
- Organizing recreational activities in homes for the aged.
- Prepare case studies on any two inmates.
- Arranging special services / counseling, if necessary, yoga and meditation classes, lectures and talks on self care, on perspectives related to different aspects of senior citizen's life etc.

REFERENCES :

- Alken, L.R.(1978).The psychology of later life, Philadelphia: WB Saunders Company
- Bergman, Klaus (1972). Aged: their understanding and care, London: Wolfe Pub
- Bose, AB and K.D. Gangrade (1988) Aging in India: Problems and Potentialities. NewDelhi: Abhinav Pub.
- KennadyCarroll(1988), Human Development, New York; Macmillan.
- Pnkston, PH. And N.K. Linsk (1984)Care of the elderly: A family approach. NewYork;Pergamon press.
- Sister Mary Vishala, S. Guidance and counseling. Tata MC Graw Hill, New Delhi
- Hurlock. E.B. Developmental psychology Tata McGraw hill publishing company Ltd. NewDelhi

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- Whitney, E N and Rolfes S R(1999)understanding Nutrition.Ed 8.International ThompsonPublishing Co.

OPEN COURSE FOR OTHERS
SEMESTER V
PRINCIPLES AND PRACTICE OF COUNSELING AND GUIDANCE
Course code:HS 1551.3

No. of contact hrs: 3/ week, 54/ semester
No. of credits: 2

Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs

Learning Objectives:

- To get an insight on the principles and philosophy of counseling and guidance.
- To know the basics of the stages in counseling process.
- To acquaint with the areas of counseling.
- To learn the causes and symptoms of stress and tips for alleviating it.

Course outcomes

CO 1: Understand and various principles of counseling.

CO 2: Able to apply the stress management tips.

COURSE OUTLINE

Module 1: Introduction to counseling and guidance

Definition, objectives, scope, principles and philosophy. Difference between counseling and guidance. (5 hours)

Module 11: Counselling in the present scenario

Familial and social pressures-divorce, substance misuse, advertisement, peer pressure, high expectations of parents, juvenile delinquency and financial insecurity. Vocational pressures-job insecurity, high demand for performance, technology, work place culture, design of tasks, interpersonal relationships, working conditions, increased responsibility, ineffective management and bullying. (15 hours)

Module III: Stress and stress management

Definition, types, causes and symptoms. Tips for alleviating stress. (10hours)

Module IV: Counseling process

Elements, characteristics and stages of counseling. Skills needed in counseling process, qualities of a counselor. (10 hours)

Module V: Types of Counseling

Types of counseling-directive , non directive and eclectic counseling, (4 hours)

Module- VI: Areas of counseling

Personal and group counseling, marriage and family counseling, child , academic and school counseling, career counseling, crisis intervention counseling and rehabilitation counseling.

(10hours)

Reference

1. AntonyJ(2011), Types of counselling, Media House Delhi.
2. Rao S N& SahajpalP(2017) Counselling and Guidance, McGraw Hill Education.
3. McLeod J (2011),Counselling Skills: A Practical Guide for Counsellors and Helping Professionals, , Open University Press.
4. Gibson RL & Mitchell MH (2015),Introduction to Counseliing and Guidance,Pearson Education India.
5. Gladding S Tand Batra P (2018), Counseling: A Comprehensive Profession,Pearson Education.
6. Agarwal N (2021), Guidance and Counselling,New Delhi publishers.
7. Ghanekar A(2018), Managing stress, ,Everest Publishing House.
8. Chakravarthy A (2002),Stress Management,Rupa Publications India.

OPEN COURSE FOR OTHERS
SEMESTER V
FOOD SCIENCE AND BASIC COOKERY
Course code:HS1551.4

No. of contact hrs: 3/ week,54/ semester
No. of Credits: 2

Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs

Learning Objectives:

- Understand the nutritive composition, methods of cooking and preservation of foods.
- Use this knowledge to prepare acceptable food products to meet body's needs.

Course Outcome

CO1: Understand the basic food groups.

CO: Explain the composition of various foods.

Course Outline

Module I :Introduction to Food science

Functions of foods, basic food groups,objectives of cooking, different methods of cooking – advantages and disadvantages. (5 hours)

Module II :Cereals

Composition, effect of heat on starch, role of ingredients in breadmaking and cake making.Pulses – Nutritive value, importance of germination, role of pulses in cookery (10 hours)

Module III :Vegetables

Classification and nutritive value, pigments, effect on fruits – Composition and nutritive value, browning reactions, methods of preventing browning reactions. (10 hours)

Module IV :Milk and milk products, Egg Meat and Fish

Composition, pasteurization, fermented and non –fermented milk products, role of milk in cookery.Eggs – Nutritive value, characteristics of fresh eggs, role of egg in cookery,salad dressing, stages of foam formation, factors affecting foam formation.

Meat – Nutrient composition and effect of cooking.

Fish – Nutritional composition, selection and storage of fish, fish cookery. (15 hours)

Module V :Fats and Oils

Composition, rancidity, types of rancidity, uses of fats and oils. (4 hours)

Module VI :Beverages

Classification, nutritional importance.

Sugar cookery – stages of sugar cookery, crystallization.

Food preservation – principles and methods. (10 hours)

Practicals :

- Record the weight of 1 cup/ 1 tbsp/ 1 tsp of different types of food stuffs.
- Sugar cookery – carrot halwa, coconut burfi, peanut brittle.
- Salad dressing – mayonnaise.
- Baking – Cake, bread, pizza, cookies (demonstration).
- Food preservation – Jam, Jelly, pickles and squash.

REFERENCES :

- Norman, N. Potter and Hotchkiss, J.H. (1996). Food Science, CBSE publishers and distributors, New Delhi, .
- Mudambi, S.R. and Rao, S.M. (1989). Food Science, New Age International (P) Ltd.,Bangalore.
- Begum, M.P, (2001). A Text book of Food, Nutrition and Dietetics, Sterling publishers Pvt. Ltd, Bangalore.
- Srilekshmi, B. Food Science, New Age International Pvt. Ltd., New Delhi.
- Mudambi, S.R. and Rajagopal, M.V. (1990). Fundamentals of Food and Nutrition,New Age International (P) ltd., New Delhi.
- Swaminathan, M., (2003). Hand book of Food and Nutrition, The Bangalore Printing and Publishing Co. Ltd, Bangalore.

OPEN COURSE FOR OTHERS
SEMESTER V
PUBLIC HEALTH AND NUTRITION
Course code:HS 1551.5

No. of contact hrs: 3/ week,54/ semester

Internal evaluation: 20%

No.of credits:2

External evaluation: 80%

University exams: 3hrs

Learning Objectives:

- Gain insight to National nutritional problems and their implications.
- Gain nutritional knowledge and measures to overcome malnutrition.

Course Outcome

CO1: Assess nutritional status of community and develop necessary intervention.

CO2: Explain the role of national, international agencies in combating malnutrition in India.

COURSE OUTLINE

Module I: Definition of health, public health and community health – Nutrition, nutritional status – vital statistics. (5 hours)

Module II: Factors influencing nutritional status – nutrition infection nexus – relation of nutrition to national development. Prevalence of malnutrition in India – common nutritional problems prevalence of morbidity and mortality rates. Strategies to overcome malnutrition – preventive, promotive and therapeutic measures to overcome malnutrition in India. (15 hours)

Module III: Nutrition education – methods – aides for nutrition education. Assessment of nutritional status – anthropometry -food weighment –24hr.recall method – biochemical and clinical methods. Nutrition intervention programmes – Direct and indirect nutrition intervention programmes organized by governmental and Non – governmental agencies. (15hours)

Module IV: Role of Non – governmental agencies in combating malnutrition in India – Mithranikethan, CARD, M.S.Swaminathan Foundation – Aga Khan Foundation. (10 hours)

Module V: Role of national and international agencies engaged in nutrition projects in India.

(5 hours)

Module VI: FAO, WHO, UNICEF, World Bank, ADB, UNDP, UNAID, CARE, ICMR, ICAR, NIN, CFTRI.

(4 hours)

PRACTICAL:

- Nutritional assessment of any age group.
- Visiting a feeding centre and evaluating and conduct of the programmes using a check list.
- Visit to NGO's engaged in nutrition projects.

REFERENCES:

- Brow A(2000) Understanding food
- Belitz H D and Groch W(1999) Food Chemistry. Springer New York
- Charley H(1982) Food Science. Ed 2. John Willey & Sons New York.
- Charley H and Weaver C(1998) Foods Scientific Approach. Ed 3. Prentice Hall Inc. New Jersey.
- Mehas K Y and Rodgers S L(2000) Food Science and you. McMillan McGraw Company. New York
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- Potter N and Hotchkiss J H(1998) Food Science Ed 5. CBS Publications and distributors. Daryaganji. New Delhi.
- Tindall H D(1983) Vegetables in the tropics. Mac Millan Press London.
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- Rangana S(1986) Hand Book Analysis and quality control for fruit and vegetable products. Ed 2. Tata McGraw Hill Publishing co Ltd. New Delhi.
- Gould W A and Gould R W(1998) Total quality Assurance for food industries. CTI Publications. Inc
- M swaminathan Food chemistry and experimental foods, Bappco Publishers
- Sri Lakshmi . Food Science. New Age International Publishers.
- Mudambi S R and Rao S M (1989) Food Science, New Age International Publishers.

RELATED JOURNAL

- Journal of Food Science and Technology

OPEN COURSE FOR OTHERS
SEMESTER V
ENTREPRENEURSHIP MANAGEMENT IN FOOD PROCESSING
Course code: HS1551.6

No. of contact hrs: 3/ week,54/ semester

No. of credits: 2

Internal evaluation: 20%

External evaluation: 80%

University exams: 3hrs

Learning Objectives:

- To understand the nature of entrepreneurial activities.
- To make aware about self employment.
- To know the present Food industries status and its relation with entrepreneurial activities.

Course Outcome

CO1: Describe the problems faced by food industries.

CO2:Examine the trends in food production in India.

CO3: Identify the various agencies for entrepreneurial support.

COURSE OUTLINE

Module I:An introduction to food processing

Need for food processing, types of food processing – Primary, secondary, tertiary. (5hours)

Module II:Food industries

Trends in food production in India, industrial status in India.

Strategies and measures for new food industries. (10 hours)

Module III:Entrepreneurship

Definition, Scope, Characteristics, factors affecting entrepreneur development, Entrepreneur Vs Intrapreneur, classification of entrepreneur, role of entrepreneur in economic development.Women entrepreneurs – Definition, status in India, steps taken for the promotion of entrepreneurs, problems faced by women entrepreneurs.

EDP–Definition, steps, agencies conducting EDP, agencies for entrepreneurial support – KITCO, SIDCO, KVIC, DIG, STED, SIDO, NSIC, TCO, SISI, SIDBI, WDC (Women Development Corporation). (15 hours)

Module IV: Food laws

Laws governing food industries production, problems faced by food industries in production, processing and marketing, FPO licensing, food standards.(4 hours)

Module V: Small Scale Industries (SSI)

Definition, types, steps for starting SSI, problems faced by SSI. Project – definition, types, steps, project life cycle, project appraisal, project report preparation, break even analysis.

(10 hours)

Module VI: Food Packaging and Marketing

Procurement of raw materials, purchasing, processing, packaging and labeling, Marketing – Techniques, pricing and cost control, labour saving devices, personal hygiene measures adopted in food processing industries, Total quality management (TQM). (10 hours)

REFERENCES :

- Prescott, A and Proctor, B.B. (1987), Food Technology, McGraw Hill Book Co., New York.
- Potter, N.W. and Hotchkiss, J.H (1996), Food science 5th edition, C.B.S. Publishers and Distributors, New Delhi.
- Desai, N. (1996). Entrepreneurial development – Principles, Programmes, Policies (Vol I), Formulation Appraisal and Financing (Vol II) and Programmes and Performance (Vol III), Himalaya Publishing House, Bombay.
- Winze, M.D. (1987). Women Entrepreneurs in India, Mital publications, New Delhi, .
- Jayan, Entrepreneurship Development.

Practicals :

1. Development of processed food products for marketing.
2. Visit to any entrepreneurial unit.
3. SWOT (Strength, Weakness, Opportunity, Threats) Analysis.
4. Interaction with any of the women entrepreneur.
5. Market survey.

OPEN COURSE FOR OTHERS
SEMESTER V
CATERING MANAGEMENT
Course code: HS 1551.7

No. of contact hrs: 3/ week, 54/ semester
No. of Credits: 2

Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs

Learning Objectives

Understand the objectives of different types of food service institutions.

Gain knowledge in menu planning, preparation of recipes in large scale and serving and in food costing.

Course Outcome

CO1: Realise the types of food service.

CO2: Design and analyze menus for food service operations.

CO3: Explain the hygiene systems in food industry.

COURSE OUTLINE

Module I: Food service industry

Scope of hospitality industry, different categories of hotels and their objectives. (4 hours)

Module II: Menu Planning

The primary control of food service -Types of menu -A la'carte, Table d' hotel and cyclic factors affecting menu planning, menu presentation, pricing and evaluation. (10 hours)

Module III :Purchasing

Procurement, Qualities of an institutional buyer, product selection, specification, methods of purchasing and purchasing process.

Receiving and Storage – Receiving – Delivery methods, delivery procedure and receiving procedure. – Storage – Types of storage (dry storage and cold storage) (10 hours)

Module IV :Standardization of Recipes

Standardization and portion control

Quantity food production and quality control – Objectives of food production, methods of production, product standards and product control – HACCP. Unit. (10 hours)

Module V: Distribution and Service of food

Types of food service – waiter service, self service and vending

Budget – Steps in budget planning, budgeting concept, break even analysis of food budget, food costing and food cost control. (10 hours)

Module – VI: Food sanitation and Hygiene

Hygiene systems – personal hygiene, equipmental hygiene, work area hygiene and commodity hygiene, cleaning and disinfection (10 hours)

Practicals :

Standardization of ten selected recipes used in food service institutions and quantity food production of any two items.

References :

Mohiniseti and Surjeet.M.Malhar, (1996). –Catering Management – an integrated approach –, Wiley Eastern Ltd. , Mumbai, 2nd edition reprinted.

Marian.C.Spears, (1995). Food service organization, 3rd edition, Prentice Hall Inc. ,USA.

West and Woods, (1994). Introduction to food service, Mac Millan Publishing Company, New York, 7th edition, .

Odder Cesarani and David Fosket, (2003). Theory of Catering, Odder and Stoughton, London, 10th edition.

Odder Cesarani and David Fosket, (2003). Food and Beverage service, London, 10th edition.

OPEN COURSE FOR OTHERS
SEMESTER V
NUTRITION FOR HEALTH
Course code: HS 1551.8

No. of contact hrs: 3/ week,54/ semester
No. of credits: 2

Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs

Learning objectives:

- Understand the role of nutrition in health
- Gain knowledge on balanced diet and principles of nutrition
- Understand the importance of homeostasis in macronutrients and micronutrients in maintaining health

Course Outcomes:

- CO1: Understand correlation between diet and diseases
- CO2: Assess deficiency diseases based on clinical symptoms
- CO3: Identify food sources rich in macronutrients and micronutrients
- CO4: Plan balanced menu for deficiency conditions

COURSE OUTLINE

Module I: Concept of health

Dimensions-physical wellbeing, mental and emotional wellbeing, social wellbeing, spiritual wellbeing and positive health. (4 hours)

Module-II: Food& Water

What is food, functions of food-physiological function, psychological function, socio cultural functions. Water- functions of water. (10 hours)

Module-III :Meal Planning

What is nutrition, What is balanced diet, Basic five food groups, Meal planning, principles of meal planning. (10 hours)

Module IV: Macro and Micronutrients

What are nutrients: Proteins- nutritional classification, functions, sources

Carbohydrates: Classification, Functions, Sources, Role of fiber in the diet

Lipids: Classification, functions, sources, EFA sources, functions and deficiency

Fat soluble vitamins-Vitamin A, D, E&K- Functions, sources, Deficiency, Hypervitaminosis

Water soluble vitamins-Thiamine, Riboflavin, Niacin, Folic acid, Vitamin C-Function, sources, deficiency.

Minerals: Calcium, Iron, Iodine-Functions, sources, deficiency. (15 hours)

Module V:RDA

Reference man, Reference woman, RDA for adult man and woman, factors affecting RDA

(5 hours)

REFERENCES :

Dietary guidelines for Indian (2010). National Institute of Nutrition (NIN),
Indian Council of Medical Research, Hyderabad.

Krause, M.V. ,Humeher, M.A. , (2004). Food, Nutrition and Diet therapy, 11th
edition.

W.B. Saunders Company, Philadelphia, London.

Srilakshmi, B..(2002). Dietetics 4th ed. New Age International Pvt. Ltd., New Delhi.

Gopalan, C. , Rama Shastri, B.V., and Balasubramanian. (2004).Nutritive value
of Indian Foods, National Institute of Nutrition (NIN), Hyderabad.

Swaminathan, M., (2003). Hand Book of Food and Nutrition, The Bangalore
Printing and Publishing Co. Ltd, Bangalore

OPEN COURSE FOR OTHERS
SEMESTER V
PERSONALITY AND SOFT SKILL DEVELOPMENT
Course code:HS1551.9

No. of contact hrs: 3/ week, 54/ semester
No. of credits: 2

Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs

Learning Objectives:

To develop an all round personality with a mature outlook to function effectively indifferent circumstances.

To develop effective communication (Spoken and written) and presentation skills.

To develop self-effectiveness by mastering interpersonal skills and leadership skills.

To get acquainted with the need, competencies, skills and motivation of self-empowerment and enhancement.

Course Outcome:

CO:1 To identify inter-personal and employability skills

CO:2 To inculcate communication and problem solving skills

COURSE OUTLINE

Module I :Personality

Meaning of Personality, The personality pattern, individuality, persistence in personality, some important personality determinants, level of adjustment, hazards in personality development. (5 hours)

Module II: Soft Skills

Meaning, IQ, EQ, soft skills suitable for various social roles. Development of Soft skills: How to identify self skills, Motivation and desire, modifying/ improving your skills. (10 hours)

Module III: Social skills

Co-operation, group participation, team skills, leadership, interpersonal skills.(4 hours)

Module IV: Emotional Skills: motivational skills & conflict management. (5 hours)

Module V: Personal Skills

Meaning, courtesy, honesty, reliability, adaptability, dependability, healthy habits, analytical ability, personal integrity, motivational skills, personal chemistry, common sense, self confidence, honesty, self assessment / rating, motivation for improvement, methods of improvement. (15 hours)

Module VI: Management Skills

Management of resources, time, money & energy, decision making, assertiveness, negotiation, endurance. Communication: Verbal Communication, rate of speech, pitch, tone, clarity of voice, language and vocabulary, eye contact, E-learning, safety on internet, presentation skills, public speaking, barriers for effective communication, telephone etiquette, effective presentation – clarity, brief, relevant, power point. (15 hours)

RELATED EXPERIENCE

Preparing C.V.

Prepared for self introduction, group discussion, interactive session, facing and interview, power point presentation.

Writing letter – formal and informal

REFERENCES

Personality Development. Hurlock, E.B. Tata McGrawhill, New Delhi.

Fundamentals of modern psychology. Banerjee J.C., Allied Publishers Pvt.Ltd., Calcutta

Motivation and Personality. Maslow, A.H. Pearson Education India.

CORE COURSE
SEMESTER –VI
PHYSIOLOGY, NUTRITION AND DIETETICS
Course code: HS1641

No. of contact hrs: 4/ week, 72/semester
No. of credits: 2

Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs

Learning objectives:

- To understand the functions of organ systems
- To empower students on the role of nutrition in maintaining optimum health.
- To familiarise students with the scientific principles of nutrition in planning balanced diets for individuals in health and disease conditions.
- To enable students to recognise nutritional modification as a therapeutic measure in the management of diseases

Course Outcomes

- CO 1: Identify functions of organ systems
- CO 2: Identify deficiency of macro and micro nutrients
- CO 3: Comprehend the dietary requirements in various stages of the life cycle.
- CO 4: Plan balanced diets for normal and therapeutic conditions

COURSE OUTLINE

Module I :Physiology of Gastrointestinal Tract, Heart and Nephron

Structure (GIT, Heart, Nephron)&Functions (9 hours)

Module II :Nutrition Overview : Nutrition, malnutrition, balanced diet. Basic five food groups, RDA(ICMR,2010), Reference Indian man & woman. (10 hours)

Module III: Carbohydrates, Proteins and Lipids

Carbohydrates - Classification, Functions, Sources, Metabolism (Steps in Glycolysis, Krebs' cycle, meaning of the terms Glycogenesis, Glycogenolysis and Gluconeogenesis), Dietary fibre-importance and functions.

Proteins –Nutritional Classification, Functions, Sources, Metabolism. Classify Essential and non-essential amino acids. Recommended Dietary Allowances. Assessment of protein quality (BV, NPU).

Lipids - Classification, Functions, Sources, Types of fatty acids (EFA, SFA, MUFA, PUFA, ω -3, and ω -6) (13 hours)

Module: III. Vitamins, Minerals and Water

Classification, Functions, Sources, RDA, Deficiency of :

- a. Water soluble and fat soluble vitamins (A, D, E, K, C, B₁, B₂, B₃, folic acid)
- b. Calcium, Sodium, Potassium, Iron, Iodine.

Water-Functions, Water Balance (13 hours)

Module : V Normal Nutrition

Meal planning - factors affecting and principles of meal planning.

Planning diets for various stages of the life cycle -pre-school and school going children, adolescent, elderly, pregnancy and lactation. (12 hours)

Module: VI Therapeutic Nutrition

Role & responsibilities of dietician, Principles of diet therapy.

Routine hospital diets-regular, soft and fluid.

Aetiology, symptoms and dietary management of peptic ulcer, constipation, hypertension, diabetes, obesity, SAM, underweight, anemia, and cirrhosis, ARF (15 hours)

References

1. Davidson. Sir Stanley Passmore, P and Brock, J F (1993) Human Nutrition and Dietetics. Ed 9 R&S Univingston Ltd. Edinburgh and London
2. National Institute of Nutrition (2003) Dietary guidelines for Indians ICMR, Hyderabad
3. Krause M V and Hunseher M A (2004) Food Nutrition and diet therapy. Ed 11 W B Saunder's Company, Philadelphia London.
4. American Dietetic Association (1996) Manual of Clinical Dietetics.
5. Mc Ardle, W Katch, F and Katch V (1996) Exercise Physiology-energy, Nutrition and human performance. Ed. 4. Williams and Wilkins .Philadelphia
6. Robinson, C H (1994) Normal and therapeutic Nutrition. Ed 8. Mc Millan Publishing co.
7. Shanti Ghosh (1997) Nutrition and child care. Jaypee publishers.

8. Shills, M E., Olson, J A ., Shikke , N and Rose , A C (Ed)(1999)Modern nutrition inhealth and disease.Ed Williams and Wilkins.
9. SrilakshmiB(2002) Dietetics Ed \$.New Age InternationalPvt Ltd New Delhi
10. Whitney, E N and Rolfes S R(1999)understanding Nutrition.Ed 8.InternationalThompson Publishing Co.
11. Gopalan C, Rama Sastry B V and Balasubramaniam(2004)Nutritive Value of IndianFoods, NIN, Hyderabad.

Journals

1. Indian Journal of Nutrition and dietetics. Sri Avinashilingam Deemed University,Coimbatore
2. Indian Journal of Medical Research, ICMR, New Delhi
3. Indian Journal of Paediatrics, Valley Nicro, Mussoria,

**CORE COURSE
SEMESTER –VI
APPAREL
DESIGNING
Course code: HS1642**

**No. of contact hrs: 3 /week, 54/semester
No. of credits: 3**

**Internal evaluation: 20%
External evaluation:80%
University exams: 3hrs**

Learning objectives

- To enable the students to develop skills in apparel designing and constructing garments.
- To gain knowledge in fundamentals of fashion.
- To impart knowledge in style reading, pattern making and garment construction techniques.
- To develop and understand the principles of pattern making through flat pattern and draping.
- To recognize the terms and theories related to fashion.
- To gain practical experience in illustrating on Croque and illustrate details on Croque.

Course Outcome

CO1: Recognise the tools, equipment's and terms used for pattern making and garment construction.

CO2:Execute the techniques involved in pattern making.

COURSE OUTLINE:

Module I :Fashion Interpretation- Terminology, concept, characteristics, and fashion cycle influence, dictionary of fashion terms.

Fashion Accessories --types and importance (8hours)

Module II :Elements and principles of fashion designing, role of a fashion Designer.

(8hours)

Module III: Tools, equipment's and terms used for pattern making and garment construction.

Sewing machine types, basic models- parts and functions, care and maintenance, common problems and reason. (10 hours)

Module IV: Psycho aspects of clothing-Clothing and wearers, Personality factors and clothing Choices. Selection of fabrics, factors affecting choice of clothing, Image consultant, Eco friendly fabrics, household linen. (9 hours)

Module V: Importance of taking measurements: Methods of taking measurements, Steps in preparing fabrics for construction. (9hours)

Module VI: Pattern Making: principles and techniques involved in pattern making-Drafting, Draping, Flat Pattern- Lengthening and shortening, increase and decrease of waist line and bust line. Patterns for people with special needs- problems figurers-Broad and narrow shoulder. Pattern Grading-Importance. (10 hours)

References

1. Armstrong, Helen Joseph, Pattern making for Fashion Design, Harper & Row, Publications
2. E.RolfoKopp&Zelin , How to Draft Basic Pattern, Fair child Publication Inc.
3. Gerry Cooklin, Garment Technology for Fashion Designers, Book Link
4. ElizabettaDurdi, Figure drawing for fashion Design, The Pepin TizianaPaci Press.
5. Claire B.Shaeffer, High Fashion Sewing Secrets from the World's Rodale Best Designer's
6. Mary Mathew's , Practical Clothing Construction, Part II, Bhattaram's Reprographics (P) Ltd, Chennai
7. Black Well (1988) The Technology of Clothing Manufacture, Scientific Publications
8. Hill house, M.S and Dress Design-Draping and Flat Pattern, London. Mansfield, E.A.
9. Riter.J.(1998) Hand Book For Fashion Designing, Best Drafting Techniques, Mital Publications
10. CorbmanP.B., (1989) , Textiles- Fibre to Fabric, 6th edition, McGrae Hill, New York.
11. Ghosh, G.K., and Ghosh, Shukla (1995), Indian Textiles, APH Publishing Co., New Delhi
12. SekhiS ., (2011) Text book of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi

**CORE COURSE
SEMESTER VI
COMMUNICATION FOR DEVELOPMENT
Course code: HS1643**

*No. of contact hrs: 3hrs/week, 54/ semester
No of credits: 2*

*Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs*

Learning Objectives

To enable the students to

1. Understand the process of communication in Home Science Education
2. Develop skills in preparing and using audio – visual aids in extension work.
3. Familiarize with the latest technologies in communication for development.

Course Outcomes :

- CO1. To introduce the concept of Communication for Development.
- CO2. To orient the students with creation, transmission and application of knowledge designed to bring out planned changes in the behaviour of people.

COURSE OUTLINE:

Module I:Communication- definition, functions, elements, types of communication and barriers in communication. Importance of communication in Home Science Education.Communication Methods- classification according to form and use, advantages and limitations of each method.

(10 hours)

Module II: Audio-Visual aids- place and role of audio-visual aids in Home Science teaching. Classification of audio-visual aids, cone of experience-merits and demerits. Factors guiding the selection and use of audio- visual aids. A detailed study of some of the visual aids- leaflet, pamphlet, posters, different types of charts, flannel graph, flip chart and flash cards.

(10 hours)

Module III: Leadership-leaders, definitions, types (democratic, autocratic, laissez-faire, Professional and Lay leader) role of leaders in community development , qualities of a good leader. (10 hours)

Module IV :Communication for Development – Meaning and concept of C4D, Key features of C4D, Tools available for C4D- 1.Interpersonel Communication (field visits, cultural activities in streets, exhibitions and fairs) 2. Printed and Electronic media.Social media contribution in C4D. (10 hours)

Module V: New Media for Communication for Development- A detailed study on the influence of new media on Communication for Development such as Digital story telling, blogs, You Tube, facebook, Instagram, twitter, Podcasts and Educational online games. (9 hours)

Module VI : Technological Developments in Communication –Brief introduction into ICR and ICT tools. E-mail, internet, Mobile apps, Use of multimedia, video and teleconferencing, web technology, tech talks and information kiosks. (5hours)

References

1. Dahama.O.P and Bhatnagar.O.P [1988] Education and Communication for development, New Delhi, Oxford and IBHPublishing.co.pvt.ltd
2. Ray, G.L.[1991].Extension, Communication and Management, Calcutta, NayaPrakash.
3. Waghmare, S.K[1980] Teaching Extension Education, Prasant Publication Vallabha, Vidhya Nagar.
4. Balan SV and Chande S (2019) –Extension Education and Communication- Concept and Future Directions||; Modern Book Centre, Thiruvananthapuram.
5. Dubey, VK and Bishnoi I (2018) –Extension Education and Communication||; New Age International Publishers.
6. Mishra ,J and Guru P (2019) –A text book on Communication and Extension||; Shivalik Prakashan; New Delhi
7. Rathore S, Vijayalekshmi, Kumar, S (2021) –Digital Technologies in Agriculture||; Bio Green Books; New Delhi.
8. Adhikary MM (2015) –Communication in Extension||;Daya Publishing House; New Delhi.

9. Melkote S,R (2015) –Development Communication- Theory and Practicell; Sage Publications; New Delhi.
10. Narula U (2019) –Development Communication Theory and Practicell; Har Anand Publications Pvt Ltd, New Delhi.
11. Anand S, Kumar A (2016) –Dynamics of Human Communicationll; Orient Black Swan, New Delhi.
12. Apps- Puppet pals(ios); <https://toontastic.withgoogle.com/>
13. <https://voicethread.com/>
14. www.canva.com
15. <https://scratch.mit.edu/>

JOURNALS

Journal of Communication and Development Studies

Crescent, Institutional Area, South of IIT, New delhi-110016

Kurushetra, Director, Publications Division, Ministry of information and Broadcasting. Govt.of India, Patiala House, New Delhi-11000

**CORE PRACTICAL
SEMESTER –VI
PHYSIOLOGY NUTRITION AND
DIETETICS**

Course code: HS1644

**Practical: 4 hrs / week
No. of Credits:2**

**Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs**

Learning Objectives

To familiarize the students with the changes occurring to the foods as a result of cooking and processing.

Enable the students to get practical knowledge in various applications and preparations of foods.

Enable the students to get practical knowledge into use various sensory methods for evaluating variety foods.

Enable the students to get practical knowledge in the application of diet therapy.

Course Outcome

CO1:Understand the methods of assessing the nutritional status of an individual.

CO2:Demonstrate skill in planning and preparing normal and therapeutic diets.

COURSE OUTLINE

DIETETICS

Module I. Normal diets: Planning, preparing and serving diets for :- Pre-school child, school-going child, adolescent, sedentary adult man, /woman, labourer, pregnant woman, lactating mother, moderately active old man/woman.

Module II. Therapeutic diets :Planning, preparing and serving diets for peptic ulcer, atonic constipation, cirrhosis, hypertension, diabetes mellitus, obesity, iron deficiency anaemia, typhoid.

Module III.Assessment of nutritional status-height, weight, BMI.

Module IV.Height and weight measurements - Recording height and weight of individual students and scoring general nutritional condition by comparison with standards.

VISITS: (Any one)

1. Visit to a dietary department in a hospital
2. Visit to a feeding programme centre
3. Visit to a Nutrition research lab

***A record of the entire practical and a report on visits should be maintained and submit for external evaluation for University practical examination at the end of 6th semester.**

**CORE PRACTICAL
SEMESTER VI
APPAREL DESIGNING
Course code: HS 1645**

**Practical: 3 hrs/ week
No. of credits: 2**

**Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs**

Learning objectives

Enable the students to understand and learn the methods of developing fabrics using different yarns and fabric making technique
Develop skills in pattern making and construction

Course Outcome

CO1:List the tools for pattern making and garment construction.

CO2: Develop skills in apparel designing and construction.

COURSE OUTLINE

Module I: Identification of machine parts.

Module II: Tools for pattern making and garment construction(Scissors, Shears, Pinking Shears, Buttonhole scissors, Embroidery frame, Embroidery scissors, Needle threader, Thimble, Stietto, Bodkin, Measuring tape, Yard stick, L-scale, small ruler, Hem gauge, Hem marker, Dress makers carbon, Tracing wheel, Tailors chalk, Pin cushion, Seam ripper, orange stick, sewing thread, cutting board or table, Mirror. Dress form, Ironing board, Iron, Sleeve board, Press cloth)

Module III: Fullness (darts-3, pleats-3, tucks-2, shirring and gathers), plackets-3, hems 3, bias-3, fasteners-3, neckline finishes-4, collars-2, sleeves-2.

Module IV: Pattern alteration - Preparation of samples for lengthening, shortening, increasing and decreasing of waistline, bust line and narrow and broad shoulder.

Garment construction- Sari petticoat, Churidar top & bottom (full size) Choli (Sari blouse).

**CORE- PRACTICAL
SEMESTER VI
COMMUNICATION FOR DEVELOPMENT
Course code: HS1646**

**Practical: 3 hrs/week
No. of credits: 2**

**Internal evaluation: 20%
External evaluation: 80%
University exams: 3hrs**

Learning Objectives:

1. To develop skill in preparation and use of Audio-Visual aids.
2. To design various new medias for interacting with community.
3. To develop competency in evaluating various contents for communication for development.

Course Outcome:

- CO1. To construct suitable aids for imparting accurate messages on any developmental issues.
- CO2. To design new media platforms for creating awareness among the community.
- CO3. To analyze various communication tools and its effectiveness.

COURSE OUTLINE:

Module I : Study of New media for Communication- Digital story telling, Blogs, You Tube, facebook, Instagram, twitter, Podcasts and Educational online games (Brief Notes for Writing part)

Module II: Creation of Blogs/ Instagram page/ You tube channel for communicating with the community on developmental issues (any two media to be prepared and a message should be shared along with writing part)

Module III: Designing visual aids- both traditional and digital- leaflets / pamphlets / posters and charts (different types of charts)(Standard size for all the aids should be followed: leaflet =10 x 5"(on each fold);pamphlet =12 x 7"; flashcards =30*20 cms; poster and ordinary chart in record sheet size; no specific size for flip chart and other types of charts.)

Module: IV Evaluation of any one communication method (Eg. Evaluation of a radio talk/TV program/ Short film/ Documentary - any one report)

RELATED EXPERIENCE (ANY ONE)

Visit to a Media Centre (Press/ FM/ Television channel/ Recording studio) to understand the functioning of the same.

Interviewing an online or offline journalist /Radio jockey/ any media personnel to understand their job role and reporting the same.

***A record of the entire practical and a report on RELATED EXPERIENCE should be maintained and submit for external evaluation for the University Practical examination of VI semester.**

**CORE COURSE
SEMESTER –VI
PROJECT**
Course code: HS1648

No. of contact hrs: 2 hrs/week in V semester, 2 hrs/week in VI semester.

No of credits:4

OBJECTIVES:

To enable the students to understand Basic principles of Research Design

To enable the students to develop interest in Home science research and to develop project plan.

To enable the students to identify the problem of the community

To enable the students adopt the procedure for the project

To enable the students to analyze the collected data.

The projects are to be identified during the 5th semester with the help of the supervising teacher. The report of the project in duplicate shall be submitted to the department by the end of the sixth semester well before the commencement of the examination. The report shall be produced before the external examiners appointed by the University for evaluation.

The work may be chosen from any branch of Home science.

The credits will be awarded only in the 6th sem.

The project report shall be produced for external evaluation during the university practical examination for HS 1646 -Communication in Extension Education. The viva – voce based on the project shall be conducted individually by the external examiner.

Evaluation of Project

There shall be **no CE** for project work. The report of project shall be submitted for external evaluation in duplicate to the Department. Total Weightage for project shall be -10

The project report shall be evaluated according to the:

Significance of the topic.

Procedure adopted for the project,

Clarity and simplicity of the language,

Accuracy of the data,

Overall presentation of the project.

(**The viva - voce** based on the project shall be conducted individually.)

**INDUSTRY BASED COURSE
(ELECTIVE)
SEMESTER VI
EARLY CHILDHOOD CARE AND EDUCATION (ECCE)
Course code: HS 1661.1**

**No. of contact hrs:3/ week, 54/ semester
No. of credits:2**

**External evaluation80%
Internal evaluation: 20%**

Learning Objectives:

To acquire skills in planning, organizing and implementing programme in an Early Childhood Education sector.

To understand development of children from birth to six years of age and plan play activities for fostering their holistic development.

To promote quality and excellence in ECE by providing guidelines for practice to promote optimum learning and development of children in their early years.

To identify children with special needs, provide early stimulation and training.

Course Outcomes:

CO1:Understand the types and benefits of early play and analyze the strengths of play-way approach for the holistic development of children.

CO2:Identify customized pedagogical techniques and acquire the skill-set in planning and administration of ECCE centre.

CO3:Understand the concept of early childhood education and Skills required in Early Childhood Education qualities of an ECE teacher.

COURSE OUTLINE

Module 1:Organizing a Child Care Centre

Significance and Objectives of Early Childhood Care and Education, Domains of development- sensory, motor, language, cognitive, creative: Birth to three years, three to six years. Setting up and early year's classroom, various curriculum models and approaches of ECCE.

(9 hours)

Module II: Methods and Materials for Working with Young Children

Planning the theme based curriculum. Concept of formal, Non formal and play way methods. Play- Outdoor play, Indoor play, Music, Creativity and Art, Puppetry, Dramatization, Teaching aid, Storytelling techniques, Mathematics and science activities.

(9 hours)

Module III: Issues and Concerns Related to ECE

Various issues faced by both normal children and children with special needs. Services for Special children, helping parents cope, parental education, Inclusion in the early years, developmentally appropriate activities during birth to six years, Basic principles of developmentally appropriate practices.

(9 hours)

Module IV: Practice Session: Working With Young Children in a Childcare Setting

Organize and develop a theme based teaching practice or training programme for One week in an Early Childhood Education Sector. The students will get exposure to Early Childhood Education through various institutions like:

- Pre-school
- Balawadi
- Anganwadi
- Nursery school
- Play school
- Day care
- Montessori
- Kindergarten
- Special school

(9 hours)

The students should maintain a record and viva voce will be conducted along with the project viva of 6th semester.

REFERENCES:

- Aggarwal, J.C, Gupta S (2007), Early Childhood Care and Education: Principles and practices, Shipra Publication.
- CECED (2013), Indian Early Childhood Education Impact (IECEI), Ambedkar University, New Delhi.
- D. Koralek, D.Trister Dodge, and P.Pizzolongo(2004), Caring for Preschool Children (3rd edition).
- DevadasR.PA text book of Child Development and Jaya N. Mac nillan India Ltd.Delhi.
- Hetherington and Park, Child psychology:Acontemporary view point 5th edition, New York: Tata MCGraw Hill.
- Krogh, SL, Slentz K. L, (2010) Early Childhood Education: Yersterday, Today, and Tomorrow, Publisher: Routledge
- Minett. P. (2005), Child Care and Development, 5th Ed. John Murray Pub.Ltd.
- Nair, M.K.C (2004), Module on Early Stimulation, CDC, Medical College, TVM.
- National Early Childhood Care and Education (ECCE) Curriculum Frame work- Ministry of Women and Child Development, Government of India. (https://wcd.nic.in/sites/default/files/national_ecce_curr_framework_final_03022014%20%282%29.pdf).
- Ray, S (2009), Early Childhood Education and Sustainable Society, Adhyayan publishers.

**INDUSTRY BASED COURSE
(ELECTIVE)
SEMESTER VI
DIET ASSISTANTS IN HEALTH CARE
Course code: HS1661.2**

*No. of contact hrs:3/ week, 54/ semester
No. of credits:2*

*External evaluation80%
Internal evaluation: 20%*

Learning Objectives:

- To get an insight on the major human systems.
- To know the basics of nutrition, dietetics and meal planning
- To understand the role of diet assistants in dietary settings

Course outcomes

- CO 1:Apply the knowledge and understanding about the role of diet assistant in the healthcare setting.
- CO 2: Demonstrate the ability to perform clinical skills essential in providing basic diet services including supervision of food preparation and food service to the patient.
- CO 3: Conduct patient education on dietary requirements under supervision.
- CO 4: Demonstrate professional behavior, personal attributes and role of a Diet Assistant
- CO 5: Demonstrate good communication and team worker ability as a Diet Assistant.

COURSE OUTLINE

Module I: Introduction to Human Body-Structure & Function of Heart, Liver, Gastrointestinal System, Pancreas, Kidneys. (18 hours)

Module II: Introduction to Food, Nutrition and Dietetics- Nutrients – Macro and Micro, Balanced Diet and Food Groups. Planned diet discussions and Practice Normal and Therapeutic diet- Diet for Diabetes, CAD, Obesity, Underweight, Cirrhosis, Peptic Ulcer, Constipation, Acute Renal Failure. (16 hours)

Module III: Introduction To Hospital Dietary Systems and Role of Diet Assistants: Basic understanding of Food and Dietetics Department and it's facilities, Understanding of the functions to be performed by Diet Assistants (10 hours)

Module IV: Field Visit- Visit aHospital Dietary Unit and observe the diet setting of any one meal in the unit. Write a report on the visit (10 hours)

The students should maintain a record and viva voce will be conducted along with the project viva of 6th semester.

References

1. Chandramouli R,(2003) Textbook of Physiology, Jaypee brothers, medical publishers (p)Ltd.New Delhil 10002.
2. Srilakshmi, B., Food Science, New Age International Pvt. Ltd., New Delhi
3. Srilakshmi B(2002) Dietetics Ed S.New Age InternationalPvt Ltd New Delhi
4. <https://www.jobhero.com/job-description/examples/fitness-nutrition/dietary-assistant>

**INDUSTRY BASED COURSE
(ELECTIVE)
SEMESTER VI
CAKE BAKING AND DECORATION
Course Code: 1661.3**

*No. of contact hrs:3/ week, 54/ semester
No. of credits:2*

*External evaluation 80%
Internal evaluation: 20%*

Learning Objectives:

- Identify and explain baking terms, ingredients, equipments and tools.
- Analyse the problems encountered while baking cake.

Course Outcome

- CO1: Explain the principles and techniques of cake production.
- CO2: Describe the properties and functions of the basic ingredients used in cake baking.
- CO4: Demonstrate how to decorate a cake.

COURSE OUTLINE

Module 1: Introduction To Cake Baking

- a) Cake baking- definition and principle.
- b) Cake baking ingredients and their function: flours, leaveners, eggs, sugars and other sweeteners, cocoa powder, salt, dairy, fats, extracts and flavourings, colours, Add-Ins.
- c) Cake baking tools and equipments : measuring cups and spoons, mixers, mixing bowls, spatula, kitchen scale, baking tins/pans, whisk, revolving cake decorating stand, piping bag and icing tip/nozzle set, cake leveler, wooden spoon, pastry brush and cake plate. (10 hours)

Module II: Baking and Decorating Cakes

- a) Mixing Methods for Cakes, Preparing Cake Pans, Panning, Filling Cake Pans Baking and Cooling Cakes and Storing Cakes .
- b) Icings And Cake Assembly : Preparing Icings , Buttercream, Foam Icing , Fudge Icing, Fondant, Glaze, Royal Icing, Ganache.
- c) Assembling And Decorating Cakes : Assembling Cakes, Simple Cake Decorating Techniques, Piping Techniques , Covering And Decorating A Cake With Rolled Fondant. (10 hours)

Module 3: Cake baking problems

Common cake baking problems and their solutions (5 hours)

Module 4

Demonstration on cake baking and icing (11 hours)

The students should maintain a record and viva voce will be conducted along with the project viva of 6th semester.

References

- 1.Pat Sinclair(2011),Baking Basics and Beyond,Agate Surray publishers.
- 2.Rose Atwater (2019), Cake Decorating for Beginners, Rockridge publishers.
- 3.Giovanna Toriko (2020), Creative cake Decorating,Skyhorse publishers.
4. Autumn Carpenter (2018), First Time Cake Decorating: The Absolute Beginner's Guide,Quarry books.
- 5.Rose Levy Beranbaum (2014),The Baking Bible,John Wiley and sons.

**INDUSTRY BASED COURSE
(ELECTIVE)
SEMESTER VI
FRUIT AND VEGETABLE PRESERVATION
Course Code: 1661.4**

*No. of contact hrs:3/ week, 54/ semester
No. of credits:2*

*External evaluation:80%
Internal evaluation: 20%*

Learning Objectives:

- To understand different methods of preservation in fruits and vegetables
- To explore value -added products from fruits and vegetables

Course Outcome:

CO1:Practice laws and standards related to food industry

CO2:Develop skills in food preservation

CO3:Apply principles of preservation in product development

CO4:Establish small scale production centres or start-ups

COURSE OUTLINE

Module 1- Food Laws and Standards

Food standards - Voluntary and mandatory food laws, Food Safety and Standards Act of India,2006 (6 hours)

Module 2- Basic Principles of Food Preservation

Definition, principles and importance of food preservation, general classification on the methods of food preservation, class I and class II preservatives. (5 hours)

Module 3-Fruits and Vegetable Processing

Primary processing, intermediate processing and secondary processing to final product. (15 hours)

Module4

Food processing unit visit/virtual tour/demonstration/hands on training/workshop

OR

A report on a novel product developed from selected fruits or vegetables (10 hours)

The students should maintain a record and viva voce will be conducted along with the

project viva of 6th semester.

REFERENCES:

1. Manay, N.S, Shadaksharaswamy, M., Foods- Facts and Principles, New Age International Publishers, New Delhi, 2004.
2. Potter, N. N, Hotchkiss, J. H. Food Science. CBS Publishers, New Delhi.2000.
3. Srilakshmi, B. Food Science (3rd edition), New Age International (P) Limited Publishers, New Delhi, 2003.

Journals:

Journal of Food Processing & Preservation, IFST, Wiley Journal of Food Processing,
Hindawi

Food Production, Processing & Nutrition, Springer Journal of Food Science & Technology,
AFSTI

Zero credit courses

EMBROIDERY

FOCUS

Though garment making is popular, embellishing certain part of garments enhance the beauty and appeal to the items prepared. Embroidery can play a vital role in upgrading the appearance and value of the products both in textile and clothing forms.

OBJECTIVES:

- To develop taste in embroidering
- To impart skill in simple and machine embroidery

Theory

COURSE OUTLINE

MODULE: I Fundamentals of embroidery – techniques, design, colour combination, use of different threads.

MODULE: II Embroidery stitches – types, suitability etc.

MODULE: III Study of the types of various contemporary embroideries like, shadow work, cutwork, drawn thread work, smoking, appliqué work etc

Practical

Preparation of three Consumer items using contemporary embroidery techniques.
Machine embroidery samples

Audit courses :Hs Audit 2

DYEING AND PRINTING

OBJECTIVES

- To enable the students to
- Impart knowledge pertaining to basic principles of design.
- Help to develop creativity in designing through the principles of design.
- Create awareness in use of different techniques of colouring techniques of clothing textiles through the use of different dyes.

COURSE OUTLINE

MODULE: I Difference between dyeing and printing

MODULE: II A brief study of different types of dyes and their capability to different fibres.

MODULE: III Styles of dyeing – Direct, Resist and Discharge styles involving varying dye effects.

MODULE: IV Fibre, yarn and fabric dyeing.

Practicals

- Simple yarn dyeing
- Identification of dyeing
- Tie and dye techniques
- Batik
- Block printing

Audit courses: Hs Audit 3

Zero credit courses

INTERIOR AND EXTERIOR DECORATION

- A. Design – elements of design- colour qualities – colour schemes-
- B. Accessories – Picture mounting – Glass painting – ceramic painting-
- C. Flower arrangement (different styles) –Bouquet making – gardening and land scaping

Audit courses Hs Audit 4

Zero credit courses

CRAFT WORK

- A. Soft toy making
- B. Knitting
- C. Crocheting
- D. Tatting

Audit courses: Hs Audit 5

Zero credit courses

BAKING

- A. Cakes
- B. Cookies
- C. Bread
- D. Piza
- E. Puffs
- F. Puddings

Audit courses:Hs Audit 6

Zero credit courses

CRAFT WORK

- A. Fabric painting –
- B. Embossing
- C.Ornament Making –
- D.Different methods of surface enrichment

Any additional courses can be planned, related to core and open courses by parentdepartment according to the demand.

SAMPLE QUESTION PAPER
First Semester B.Sc. Degree Examination
First Degree Programme Under CBCSS
HOME SCIENCE
Core Course

HS 1141: FAMILY RELATIONS AND COUNSELLING

Time : 3 hours

Max.Marks: 80

PART A

Write one word answers. All questions must be answered. Each answer carries one mark.

1. Define marriage.
2. What is civic sense?
3. Define Family.
4. Define joint family
5. Define counselling.
6. Define desertion.
7. Define sex education.
8. Small family norm.
9. Define extended family.
10. Define divorce.

(10x1= 10 marks)

PART B

Write short answer not exceeding one paragraph. Answer any 8 questions. Each answer carries two marks.

11. Differentiate between geriatrics and gerontology.
12. Write on the disadvantages of old age homes .
13. How can we educate our children about civic sense?
14. Short note on importance of small family norms?
15. Explain biological function of family
16. What are the main characteristics of old age?
17. Alcoholism.
18. Merits and demerits of nuclear family.
19. Write briefly on separation?
20. Civic responsibilities of a citizen.
21. Single parent family.
22. How can we manage stress at work place?

(8x 2=16 marks)

PART - C

Write short essays not exceeding 120 words. Answer any 6 questions. Each question carries 8 marks.

23. Write briefly on major areas of counselling.
24. Briefly explain family life cycle?
25. Note on dowry victimization and violence against women.
26. Discuss on the need for sex education among adolescents.
27. Explain factors associated with success in marriage?
28. Merits and demerits of joint family.
29. Basic skills for a good counselor.
30. What are causes of disintegration of joint family system in India?
31. Explain the role of father in a family. **(6x 4=24**

marks) PART - D

Write essay not exceeding four pages. Answer any one question. The answer carries 15 marks.

32. Explain different family planning techniques?
33. Explain various problems of elderly?
34. Give an essay on the functions and characteristics of family?
35. Discuss contemporary issues in families and brief on women protection laws?

(2x15=30 marks)

SAMPLE QUESTION PAPER
Second Semester B.Sc. Degree Examination
First Degree Programme Under CBCSS
HOME SCIENCE
Core Course

HS1221: RESEARCH METHODOLOGY AND INFORMATICS

Time : 3 Hours

Max.Marks: 80

Part A

Write one word answers. All questions must be answered. Each answer carries one mark.

1. Name any two storage applications?
2. Primary data?
3. What is green computing?
4. What is Industrial Revolution?
5. What is a Histogram?
6. What is a unique address of website known as?
7. SWAYAM?
8. What is e governance?
9. Sampling?
10. What is plagiarism?

(1x10=10 marks)

Part B

Write short answers not exceeding one paragraph. Answer any 8 questions. Each answer carries 2 marks.

11. Define cyber ethics?
12. Define virtual reality?
13. INFLIBNET
14. What is digital divide?
15. List the guidelines for proper use of Computer?
16. Name any four fun learning apps?
17. Explain Google drive?
18. Explain hypothesis?
19. What is Pilot study?
20. Explain the types of data?
21. Checklist?
22. e-paatshala

(2x8=16 marks)

Part C

Write short essays not exceeding 120 words. Answer any 6 questions. Each answer carries 4 marks.

23. Write short notes on spreadsheet applications?
24. Explain different types of academic application software?
25. Explain the methods used for Data collection?
26. What is the use of IT in healthcare?
27. Write a short note on IT applications in field of Home Science?
28. Explain the importance of data presentation by giving suitable examples?
29. Explain the steps in research report writing?
30. Comment on the basic concepts of IPR?
31. Discuss the various cyber laws and cyber addictions?

(6x4=24 marks)

Part D

Write essays not exceeding for pages answer any 2 questions. Each answer carries 15 marks

32. Explain different methods of sampling with special mention on advantages and disadvantages?
33. Elaborate IT knowledge skills needed for higher education.
34. Explain your view on the role of Home Science in empowering women and scopes of Home Science Education?
35. Outline the overview of operating systems and briefly explain major application softwares?

(15x2=30 marks)

SAMPLE QUESTION PAPER
Third Semester B.Sc. Degree Examination
First Degree Programme Under CBCSS
HOME SCIENCE
Core Course

HS 1341: CHILD DEVELOPMENT AND WELFARE

Time- 3 hours

Max. Marks: 80

PART A

Write one word answers. All questions must be answered. Each answer carries one mark.

1. Define play.
2. Who is a neonate?
3. Define weaning.
4. ODD?
5. Define Child development.
6. Define juvenile delinquency?
7. Differentiate between solitary and parallel play.
8. Temper tantrum?
9. Identity Crisis?
10. List out any four learning disabilities?

(10x1= 10 marks)

PART B

Write short answer not exceeding one paragraph. Answer any 8 questions. Each answer carries two marks.

11. Explain any two types of pre-school.
12. APGAR test.
13. Differentiate demand feeding and schedule feeding.
14. State the objectives of ICDS?
15. Describe the types of birth.
16. What are the complications of pregnancy?
17. Write on the significance of studying child development?
18. Advantages of breast feeding?
19. What are the toys suitable for babies?
20. Explain child line services?
21. Who is a gifted child?
22. ADHD

(8x 2=16 marks)

PART - C

Write short essays not exceeding 120 words. Answer any 6 questions. Each question carries 4 marks.

23. Describe the sensory abilities of the new born?
24. What are the characteristic of child's emotions?
25. Enumerate the usefulness of toys.
26. What is meant by Nature and Nurture?
27. What is peer pressure?
28. What are the various types of play?
29. Describe briefly the types of learning disability?
30. Write a short note on child rights?
31. Who are children with special needs?

(6x 4=24 marks)

PART - D

Write essay not exceeding four pages. Answer any one question. The answer carries 15 marks.

32. Write essay on Child Rearing Practices of parents?
33. Outline the important milestones in child development during infancy to adolescent age?
34. Explain Mentally challenged - classification, characteristics, causes, prevention and care?
35. Discuss various behavior problems seen in children?

(2x15=30 marks)

Sample Question Paper
Fourth Semester B.Sc. Degree Examination
First Degree Programme Under CBCSS
HOME SCIENCE
Core Course
HS 1441: RESOURCE MANAGEMENT

Time:3hours

Max marks :80

PART A

Write answers in one line. All questions must be answered. Each question carries one mark.

1. Real income.
2. Timenorm.
3. Surplusbudget.
4. Frustrationfatigue.
5. LIC.
6. Values.
7. Homemanagement.
8. Biogas.
9. OTG.
10. Attitudes.

(10X1=10 marks)

PART B

Write short answers not exceeding one paragraph. Answer any 8 questions. Each question carries 2 marks.

11. Time schedule.
12. Ledger.
13. Peakload.
14. Any two problems faced by a consumer.
15. Consumer Protection Act.
16. Rights of a consumer.
17. What do you understand by biofuels?
18. Types of goals.
19. Discuss the qualities of a good home maker.
20. Briefly explain wind energy source.
21. Types of decision making.
22. Elucidate Management process.

(8X2=16 marks)

PART C

Write short essays not exceeding 120 words. Answer any six questions. Each question carries 4 marks.

23. Define and explain the principles of body mechanics.
24. List the steps in the preparation of a time plan.
25. Differentiate pathway chart and process chart.

26. Enumerate the tips for wisebuymanship.
27. Describe the use and care of Microwaveoven.
28. Explain the use of any two indigenous equipments.
29. Discuss the factors influencing resourcemanagement.
30. Detail the steps in Decisionmaking.
31. Compare and contrast Refrigerator andVaccumcleaner.(6x4=24marks)

PART D

Write essays not exceeding four pages. Answer any two questions. Each question carries 15 marks.

32. Define family budget. Explain the steps in the preparation of abudget.
33. Expalin Mundell's classes of change with suitableexamples.
34. Describe the different stages of Family life cycle.
35. Illustrate the structure and working principle and merits and demerits of sola cooker. **(15x2=30marks)**

SAMPLE QUESTION PAPER
Fifth Semester B.Sc. Degree Examination
First Degree Programme under CBCSS
HOMESCIENCE
Core Course
HS 1541: HOUSING AND INTERIOR DECORATION

Time -3hours

Max.Marks : 80

PART A

Write one word answers. All questions must be answered. Each question carries one mark.

1. Define design
2. Formal balance.
3. Define work triangle.
4. Name one Japanese flower arrangement.
5. How can we classify accessories.?
6. Define value.
7. Monochromatic color harmony.
8. Mention the any four elements of design
9. Define Work triangle.
10. Split complementary colour harmony.

(10x1=10 marks)

PART B

Write short answer not exceeding one paragraph. Answer any 8 questions. Each answer carries two marks.

11. Differentiate owning and renting a house .
12. How can we create rhythm.
13. Write about the functions of ahouse.
14. Explain prang colour wheel.
15. What are the various methods of preservation of flowers and foliage.
16. Define two walled kitchen.
17. What are the requirements of good structural design?
18. Illustrate the any two treatment of problem window.

19. What are the different types of rugs?
20. Differentiate natural and artificial lighting.
21. What are the qualities of color.
22. What are the main principles of Japanese flower arrangement.(**8x 2=16 marks**)

PART - C

Write short essays not exceeding 120 words. Answer any 6 questions. Each question carries four marks.

23. Illustrate U shaped and L shaped kitchen.
24. Briefly explain any three elements of design.
25. What are the factors to be considered while selecting site?
26. Write on different working areas of kitchen.
27. Differentiate between rugs and carpets.
28. Explain and illustrate various types of design.
29. Explain the principles of making bridal bouquet.
30. Illustrate the furniture arrangement of a bed room.
31. Explain on any two Japanese flower arrangement. **(6x4=24 marks)**

PART - D

Write essay not exceeding four pages. Answer any one question. The answer carries 15 marks.

32. Discuss on the various principles to be considered while planning a house.
33. Discuss the various principles and types of traditional flower arrangement.
34. Illustrate and explain the various principles of design.
35. Define window treatment. Illustrate and explain various types of curtain styles. **(2 x 15=30 marks)**

SAMPLE QUESTION PAPER
Fifth Semester B.Sc. Degree Examination
First Degree Programme under CBCSS
HOME SCIENCE
Core Course
HS1543- EXTENSION MANAGEMENT

Time: 3 Hours

Max. Marks: 80

PART-A

Write one word answers. All questions must be answered. Each answer carries 1 mark

1. NGO.
2. Social Mapping.
3. Extension Education.
4. Evaluation.
5. SHG.
6. Plan of work.
7. Marthandam Attempt.
8. Zilla Parishad.
9. Community Development.
10. Democratic Decentralization.

(10X1=10marks)

) PART-B

Write short answers not exceeding one paragraph. Answer any 8 questions.

Each answer carries 2marks.

11. Briefly explain the philosophy of extension.
12. Write short notes on Kudumbasree.
13. What are the components of plan of work?
14. List out the tools used for evaluation.
15. Differentiate between Formal and Extension education.
16. Enumerate the functions of GramaPanchayat.
17. Write notes on focus group discussion.
18. Explain the principles of community development.
19. Adoption and Diffusion.
20. Write short notes on Nilokheri experiment.

21. What are the advantages of evaluation ?

22. Name the officials working at the block level.

(8X2=16marks)

Part-C

Write short essays not exceeding 120 words.

Answer any 6 questions. Each answer carries 4 marks.

23. Briefly explain the functions of NGO.

24. List out the qualities of an Extensionalist.

25. Briefly explain the principles of programme building.

26. Discuss the role of functionaries at the block level.

27. Explain the principles of extension.

28. What are the factors to be considered while preparing the plan of work?

29. Briefly explain principles of community development.

30. Enumerate the contribution of Home science extension towards the development of community.

31. Briefly explain the community development set up at National and State level.

(6x4=24marks)

Part- D

Write essays not exceeding four pages. Answer any two questions.

Each answer carries 15marks

32. Illustrate and explain the components of programme development cycle.

33. Discuss the importance and functions of NGOs in India.

34. Explain the set up and functions of Panchayat Raj system

35. Trace the history of community development and extension programmes in India.

(15x2=30marks)

SAMPLE QUESTION PAPER
Fifth Semester B.Sc. Degree Examination
First Degree Programme under CBCSS
HOME SCIENCE
Core Course
HS1545: TEXTILE SCIENCE

Time: 3 Hours

Max. Marks: 80

PART A

Write one word answers. All questions must be answered. Each answer carries one mark.

1. Name two basic stitches in weft knitting.
2. What is carbonizing?
3. Define fulling.
4. Types of retting.
5. What is blending?
6. What is antibacterial finish?
7. What is tossa jute?
8. What is pulled wool?
9. What is twist per inch in yarns?
10. Name two acidic dyes.

(10x1=10 marks)

PART B

Write short answer not exceeding one paragraph. Answer any 8 questions. Each answer carries two marks.

11. Write a note on braiding.
12. What are natural dyes?
13. Explain the process of scouring in wool?
14. Difference between woollen and worsted yarn.
15. Write on the physical properties of wool.
16. Write a note on laminated fabric.
17. Write a note on felting.
18. What are artificial dyes?
19. Explain the nitro cellulose process
20. Write a note on laminated fabric.
21. Write a note on degumming of

silk.

22. Parts of a loom.

(8x 2=16 marks)

PART - C

Write short essays not exceeding 120 words. Answer any 6 questions. Each question carries 4 marks.

23. What are the properties and significance of woolen fibres?
24. Discuss the types of laces
25. Production process of silk.
26. What are the properties and significance of animal fibres?
27. Write the advantages of knitted fabric.
28. Brief on the any one methods of chemical finish.
29. Discuss the properties of felt fabric.
30. Differentiate weft and warp knit.
31. What are fibres? How are they classified? **(6 x 4=24 marks)**

PART - D

Write essay not exceeding four pages. Answer any 2 question. The answer carries 15 marks.

32. Explain the different methods of dyeing.
33. Briefly explain the production properties of jute.
34. Explain any three types of fabric finishes
35. Briefly explain the production properties of cotton. **(2x15=15marks)**

SAMPLE QUESTION PAPER
Fifth Semester B.Sc. Degree Examination
First Degree Programme Under CBCSS
HOME SCIENCE
Core Course
HS 1546: BASICS OF FOOD SCIENCE & FOOD MICROBIOLOGY

Time: 3 hours

Max. Marks: 80

Part A

Answer all questions. Each question carries 1 mark

1. What is Botulism?
2. Define parboiling
3. Name any two microbial spoilage in vegetables
4. What are Aflatoxins?
5. What is dextrinisation
6. Which is the limiting amino acid in pulses?
7. Give an example for water in oil emulsion.
8. Write a note on ARF
9. The principle protein in milk
10. Name the compound commercially added to fats and oils to prevent rancidity.

(10X1=10 marks)

Part B

Write short answers not exceeding one paragraph. Answer any 8 questions.

Each carries 2 marks

11. Define smoke point
12. What is blanching?
13. Briefly explain candling of eggs
- 14 Write on the health significance of turmeric.
15. Define food adulteration
16. What is Oxidative rancidity?
17. What is cheddaring in cheese production?
18. What are the major anaerobic spoilage in meat?
19. Comment on Shigellosis

20. Write on any four uses of fats in food preparation.

21. Why is ragi known as 'poor man's milk'?

22. What are the functions of food?

(2 X 8= 16

marks) Part C

Write short essays not exceeding 120 words. Answer any 6 Questions.

Each answer carries 4 marks

23. Explain the methods of improving nutritive value of pulses?

24. Write short notes on the two major processing techniques in milk pasteurization and homogenisation.

25. Elaborate on the spoilage in

bread. 26. Write a note on Nutrition

labeling.

27. What is enzymatic browning? How will you prevent it?.

28. Explain the major types of spoilage in fish.

29. What is gelatinisation and what are the major factors affecting it?.

30. Write a short note on Breakfast cereals.

(6 X 4= 24

marks) Part D

Write essays not exceeding four pages. Answer any 2 Questions.

Each answer carries 15 marks

31. Explain the principles and methods of food preservation under the following

a) Using temperature

b) Using sugar and salt

32. Write an essay on the physiology of common microorganisms in the food industry.

33. Elaborate on food adulteration with special reference to the types of adulteration and common food adulterants.

34. Discuss meat under the following headings.

a) Postmortem changes

b) Factors affecting tenderness

(15 X 2=30 marks)

SAMPLE QUESTION PAPER
Fifth Semester B.Sc. Degree Examination
First Degree Programme Under CBCSS

HOME SCIENCE
OPEN COURSE

HS 1551.3PRINCIPLES AND PRACTICE OF COUNSELLING AND GUIDANCE

Time :3 hours

Max marks:80

PART A

Write answers in one line or word. All questions must be answered. Each question carries one mark.

1. Meaning of counselling.
2. Chronic stress.
3. Any one objective of counselling.
4. Define stress.
5. Career counselling.
6. Acute stress
7. Bullying.
8. Crisis intervention.
9. Peer pressure.
10. Any one difference between counseling and guidance. **(10x1= 10marks)**

PART B

Answer any 8 questions, each not to exceed one page. Each question carries 2 marks

11. Write on any four qualities of a good counsellor.
12. Discuss on academic counselling.
13. Enumerate any four characteristics of counselling.
14. List any four tips for alleviating stress.
15. What are the physical symptoms of stress?
16. Record any four skills needed in counselling.
17. Juvenile delinquency.
18. Write on any four things a counsellor should not be doing during counselling.
19. Any two reasons for divorce.
20. Discuss marriage counselling. **(8x2=16marks)**

PART C

Answer any 6 questions, each not to exceed 120 words. Each question carries 4 marks.

21. Bring out any four contrasts between directive and non-directive counselling.
22. Enumerate the elements in counseling process.
23. Define and classify stress.
24. What are the effects of divorce on children ?
25. Discuss any four factors responsible for vocational stress.
26. What is crisis intervention counseling.
27. Explain substance misuse.
28. How financial insecurity affect children?
29. Differentiate Personal and Group counselling.
30. Write on the need for Rehabilitation counseling.
31. What are the characteristics of Eclectic counseling? **(6x4=24**

marks) PART D

Answer any 2 questions, each not to exceed four pages. Each question carries 15 marks.

32. Discuss on the different types of Counselling, with respect to its merits and demerits.
33. Explain the various causes of vocational stress.
34. Describe the different stages in counseling.
35. Elaborate on the causes and symptoms of stress. **(2x15=30marks)**

SAMPLE QUESTION PAPER
Fifth Semester B.Sc. Degree Examination
First Degree Programme under CBCSS
HOME SCIENCE
Open Course
HS 1551.8 : NUTRITION FOR HEALTH

Time : 3 hours

Max Marks : 80

Part A

Answer all questions. Each question carries 1 mark

1. Define balanced diet?
2. Define food?
3. Name the EFAs?
4. Name the sunshine vitamin?
5. Define nutrition?
6. Define dietary fiber?
7. Name an incomplete protein?
8. Name the deficiency diseases caused by Vit C & Niacin?
9. Name a protective nutrient and its food source?
10. Define health triangle? **(10x1=10marks)**

Part B

Write short answers not exceeding one paragraph. Answer any 8 questions. Each answer carries twomarks

11. Explain protein sparing action?
12. Write a note on ariboflavinosis.
13. What are visible and invisible fats. Give examples?
14. Classify fiber?
15. Explain the concept of Reference Man and Woman. Give the RDA of macronutrients for adults?
16. Explain the classic 4D's of niacin deficiency.
17. List out various Vit A deficiency manifestations?
18. Write the functions of water?
19. Explain about hypervitaminosis?
20. What is pellagra?
21. Write a note on Haem iron?
22. Deficiency of Vit B1? **(8x2=16 marks)**

Part C

Write short essays not exceeding 120 words. Answer any 6 Questions. Each answer carries 4 marks.

23. Define RDA. What are the factors influencing RDA?
24. Explain water balance? Give the functions of water?
25. Explain basic five food groups suggested by ICMR?
26. Explain the role of fiber in health and disease?
27. Explain the dimensions of health?
28. What are the functions of thiamine and folic acid?
29. No single natural food is nutritionally complete, justify the statement.
30. Write a note on effects of Vit D deficiency in children?

(6x4=24marks)

SECTION D

Answer any 2 questions, each not to exceed four pages. Each question carries 15 marks.

31. Explain protein under the following heads :-
 - a) Nutritional Classification
 - b) Functions
 - c) Sources
32. Explain the principles and objectives of meal planning?
33. Explain the micronutrient deficiency disorders prominent in a country?
34. Describe EFA in terms of :-
 - a) Classification
 - b) Functions
 - c) Sources
 - d) Deficiency.

(2x15=30marks)

SAMPLE QUESTION PAPER
Fifth Semester B.Sc. Degree Examination
First Degree Programme under CBCSS
HOMESCIENCE
Open Course

HS1551.9 : PERSONALITY AND SOFT SKILL DEVELOPMENT

Time:3hours

Max.Marks:80

PART- A

Write one word answer. All questions must be answered.

1. Name two barriers to effective communication.
2. The four important components of communication _____, _____, _____ & _____.
3. What is personal chemistry?
4. Synonym for etiquette.
5. The capacity to be modified for a new use or purpose is known as _____.
6. What is egocentrism?
7. _____ & _____ are the skills required for a work environment.
8. Body language is a kind of _____ communication.
9. Importance of group participation.
10. List two personality determinants.

(10x1= 10 marks)

PART- B

Write short answers not exceeding one paragraph. Answer any 8 questions.

11. Describe the term personality.
12. Write short notes on important factors that can influence personality.
13. What is the difference between self confidence and self effectiveness.
14. Explain soft skills.
15. Define and differentiate between IQ and EQ
16. What is cross cultural communication?
17. Describe team skills.
18. Methods to identify self skills.
19. How can a person be motivated for improvement.
20. List the hazards in personality development.
21. What is resource management

22. What is e-learning

(8x2= 16 marks)

PART- C

Write short essay not exceeding 120 words. Answer any 6 questions.

23. What are the important determinants of personality?
24. What are the important points to be followed in effectively writing a scientific report? 25. Explain any two personal skills.
26. What are the methods for self-improvement?
27. Write about conflict management
28. Enumerate 4 qualities of a good leader?
29. Write about decision making as an important management skill. 30. What are the soft skills suitable for various social roles?
31. What are the advantages of e-learning.

(6x4= 24 marks)

PART- D

Write essays not exceeding four pages. Answer any 2 questions.

32. What are the important points to be remembered when writing a formal and informal report.
33. Enumerate the soft skills suitable for various a job in a private company. 34. Write in detail about management skills.
35. a. Describe about motivational skills.
b. How to develop new social skills.

(2x15= 30 marks)

SAMPLE QUESTION PAPER
Sixth Semester B.Sc. Degree Examination
First Degree Programme Under CBCSS
HOMESCIENCE
Core Course
HS 1641: PHYSIOLOGY, NUTRITION AND DIETETICS

Time: 3 hours

Max. Marks: 80

PART A

Answer all questions. Each question carries 1 mark.

1. Give the RDA of calcium for a pregnant woman.
2. Pellagra is due to the deficiency of
3. Name a rich source of vitamin A.
4. Synthesis of glycogen is termed as
5. Micturition
6. The ability of a food item to raise the blood sugar is measured in terms of
7. Digestive enzymes.
8. Expand ICMR.
9. Deficiency of vitamin C leads to
10. What is a balanced diet ? **(10×1=10**

marks) PART B

Write short answers not exceeding one paragraph. Answer any 8 questions. Each answer carries 2 marks.

11. Define reference man and woman.
12. What are routine hospital diets ?
13. Explain functions of folic acid
14. Write a note on Sippy's diet.
15. Composition of urine.
16. Write a note on basic five food groups
17. What are soluble fibres ?
18. Write a note on protein sparing action.
19. What are the functions of proteins ?
20. What is meant by Biological Value?

21. Write a note on nephrons.

22. Discuss cardiac cycle.

(8×2=16

marks) PART C

Write short essays not exceeding 120 words. Answer any 6 Questions. Each answer carries 4 marks.

23. Explain the digestion of proteins.

24. Discuss the functions of kidney.

25. Explain water balance and discuss the role of electrolytes in water balance.

26. Write a note on functions and deficiency of vitamin D

27. Discuss the functions of gastrointestinal tract.

28. Discuss the factors to be considered in planning diets for school going children.

29. Explain the aetiology of obesity

30. Explain the formation of urine.

(6×4=24

marks) PART D

Write essays not exceeding four pages. Answer any 2 Questions. Answer should not exceed 4 pages. Each answer carries 15 marks

31. Explain the principles in the dietary management and complications of Diabetes

32. Write an essay on meal planning.

33. Discuss carbohydrate metabolism.

34. Elaborate on the structure of heart with suitable illustration.

(2×15=30 marks)

SAMPLE QUESTION PAPER
Sixth Semester B.Sc. Degree Examination
First Degree Programme Under CBCSS
HOME SCIENCE
Core Course
HS1642: APPAREL DESIGNING

Time – 3 Hours

Max.Marks : 80

PART A

Write one word answers. All questions must be answered. Each answer carries one mark.

1. Pattern making.
2. Selvedge
3. Define designing
4. Silhoutte
5. Define
fad
6. Tints and shades
7. Define value
8. Drafting
9. Pattern alteration.
10. What are accessories?

(10x1=10 marks)

PART B

Write short answer not exceeding one paragraph. Answer any 8 questions. Each answer carries two marks.

11. What is the importance of proper usage of color in designing dresses?
12. Points to be considered while preparing fabric for construction.
13. What are the functions of clothing?
14. What is the importance of grain in fabrics?
15. What is the importance of taking body measurements? How will you take accurate measurements?
16. What do you understand by the term –fashion cyclell?
17. Use of warm and cool colours apparel designing.
18. Which colours can we use for designing dress for an adolescent

girl. 19. Briefly explain the four basic stitches.

20. What are the qualities of colour?
21. What are the various neckline finishes?
22. How can we increase and decrease the waist line? **(8x 2=16 marks)**

PART – C

Write short essays not exceeding 120 words. Answer any 6 questions. Each question carries 4 marks.

23. Briefly explain on the importance of the element line in fashion designing, with suitable illustrations.
24. What are the main principles of design fashion
25. What are the factors affecting choice of clothing?
26. What do you understand by eco-friendly fabrics?
27. Discuss any four problems and remedies of sewing machine.
28. What are the role of an image consultant?
29. Briefly explain on the psychological aspects of colour in dress. 30. Illustrate various tools of fabric construction.
31. How can we introduce Fullness in garments. **(6 x 4=24 marks)**

PART - D

Write essay not exceeding four pages. Answer any one question. Each answer carries 15 marks.

32. With the help of the diagram, name the parts of a sewing machine.
33. What are the socio-psychological factors that influence clothing?
34. Explain the Prang colour wheel different colour harmonies and use of colours in apparel designing.
35. What is the role of fashion designer? **(2 x15=30 marks)**

SAMPLE QUESTION PAPER
Sixth Semester B.Sc. Degree Examination
Degree Programme under CBCSS

Home Science

Core Course

HS 1643 - COMMUNICATION FOR DEVELOPMENT

Time: 3 Hours

Max. Marks:80

PART-A

Write one word answers. All questions must be answered. Each answer carries 1 mark

1. Communication
2. Personal letter
3. Visual aid
4. Flash card
5. Laissez-fair leader
6. Communication for development
7. You Tube
8. Blogs
9. Print media
10. E-mail

(10x1=10marks)

PART-B

Write short answer not exceeding one paragraph. Answer any 8 questions. Each answer carries 2 marks

11. Result Demonstration
12. SMCRE model of communication
13. List out merits of cone of experience
14. Classify audio visual aids
15. Describe ABC of poster
16. Qualities of a good leader
17. Key features of communication for development
18. Cite Digital story telling
19. Advantages of social media communication
20. Enumerate merits of Television

21. Explain the power of News paper

22. Explain Web technology

(8x2=16

marks) Part C

Write short essays not exceeding 120 words. Answer any 6 questions. Each answer carries 4 marks

23. Briefly explain the characteristics of a good communicator.

24. Distinguish between method demonstration and result demonstration.

25. Illustrate cone of experience.

26. Write short notes on mass method of communication.

27. Explain democratic leadership.

28. Write notes on non projected visual aids.

29. Explain the tools for communication for development.

30. Summarize the recent trends in communication

31. Generalize information Kiosks.

(6x4=24marks)

Part D

Write essay no exceeding four pages. Answer any two questions. Each answer carries 15 marks.

32. Explain elements of communication system

33. Analyse the social media contribution in communication for development

34. Evaluate role of audio visual aids in Home Science.

35. Explain Print media vs electronic media.

(15x2=30marks)