

FATIMA COLLEGE(AUTONOMOUS)



**Re-Accredited with “A++” Grade by NAAC (4th Cycle)
74th Rank in India Ranking 2019 (NIRF) by MHRD
Mary land, Madurai-625018, TamilNadu, India**

NAME OF THE DEPARTMENT: HOMESCIENCE

NAME OF THE PROGRAMME : UG

PROGRAMME CODE : UAHS

ACADEMIC YEAR : 2023-2024

Minutes of the Board of Studies - Upgradation of
syllabus of the Research Centre of Home Science
B.Sc Home Science with Food Biotechnology
To be implemented from the academic year
2023-2024 onwards.

Venue: Smart room.

Convened on : 05.04.2023 Convened at : 2pm.

Members present

1. DR. VASANTHA ESTHER RANI.

Vasanthp E Rani
05/04/2023
HEAD, THE RESEARCH CENTRE OF
HOME SCIENCE.

2. DR. U. RAMESH.

ASST. PROF & HEAD i/c

DEPT. OF MOLECULAR BIOLOGY

SCHOOL OF BIOLOGICAL SCIENCES

MADURAI KAMARAJ UNIVERSITY

MADURAI - 21.

05/04/23
UNIVERSITY NOMINEE.

3. DR. P. C. JEMINA RANI

ASST. PROF, DEPT. OF COSTUME

DESIGN & FASHION,

CHIKANNA GOVT. ARTS. COLLEGE,

TIRUPUR - 2.

P.C. Jemina
5.4.23
SUBJECT EXPERT

4. DR. K. DEVI

ASST. PROF

DEPT. OF FOOD SCIENCE & NUTRITION

AVINASHILINGAM INSTITUTE OF HOME

SCIENCE & HIGHER EDUCATION

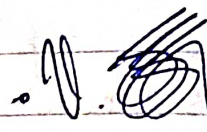
FOR WOMEN, COIMBATORE -

ABSENT

SUBJECT EXPERT.

5. MR. S. V. SURAJ SUNDARA SHANKAR.

MANAGING PARTNER,
SVS FOODS, MADURAI.


5/4/23
INDUSTRIALIST.

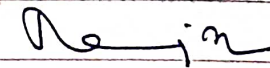
6. MS. K. SUSHEELA

AUP. CORPORATE PARTNERSHIPS.
CALCIDUS SOCIAL ENTREPREPRISES
BANGALORE.

• K. Susheela 5/04/23
ALUMNAC

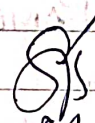
7. DR. A. RATESWARI

ASST. PROFESSOR
DEPT. OF CHEMISTRY

• 
DEAN OF SCIENCE.

8. DR. S. SANTHI

ASSOCIATE PROFESSOR

• 
STAFF MEMBER

9. DR. K. KARTHIGA

ASST. PROFESSOR.

• k. karthiga
STAFF MEMBER


10. DR. P. MAGDALENE VIRJINI

ASST. PROFESSOR

• P. Magdalen Virjini
STAFF MEMBER

11. DR. C. HELEN

ASST. PROFESSOR.

• 
STAFF MEMBER

12. MS. D. MOUNA.

ASST. PROFESSOR

• D. Mouna
STAFF MEMBER

13. DR. C. PRIYALATHA.

ASST. PROFESSOR

• c. priyalatha
STAFF MEMBER

14. MS. J. JOSEPHINE JECINTHA
ASST. PROFESSOR.

J Josephine Jecinta
STAFF MEMBER

15. MS. K. NANDINI PRIYA
ASST. PROFESSOR.

K. Nandini Priya
STAFF MEMBER

16. MS. A. MABEL ESTHER PARIPURNA. A. Mabel Esther Paripurna.
FDGC - STAFF MEMBER

17. MS. R. BHAVANI

R. Bhavani.
FGDC - STAFF MEMBER

ACTION TAKEN REPORT.

S.No. COMMON SUGGESTIONS OFFERED IN
THE PREVIOUS BOARD.

ACTION TAKEN FOR THE
ACADEMIC YEAR 2022-2023.

1. The self learning inter-disciplinary courses for IV semester were suggested.

Two self-learning courses -
Public Health's Hygiene
22UG4SLZ
- TEXTILE COLORATION - 22UG4SLN
were implemented

2. The skill embedded crash course and certificate course were proposed.

The crash course - Apparel making 22UGVACN1 and the certificate course - Surface Ornamentation - 22UGVACN2 have been introduced.

CHANGE OF COURSE TITLE

NA.

CHANGE OF COURSE CODE.

Code of Baking Food Preservation & adulteration offered in sixth semester is changed to 23N6SB3,

as there was a 40% revision in the syllabus.

NEW COURSES INTRODUCED.

S. No.	COURSE CODE	COURSE TITLE WITH SEMESTER.	RELEVANCE TO				SCORE FOR			NEED FOR INTRODUCTION
			L	R	N	G	EMP	ENTR	SD	
1.	22UG4SLZ	PUBLIC HEALTH & HYGIENE				G			SD	HELPS STUDENTS TO SEEK JOBS AS HEALTH INSPECTOR & SANITATION OFFICER.
2.	22UG4SLN	TEXTILE COLORATION				G			SD	PAVES WAY FOR STUDENTS TO FIND JOBS IN TEXTILE INDUSTRIES & TO BECOME ENTREPRENEURS TO DO BATIK PRINT TIE & DYE ETC.
3.	22UGVACNI	APPAREL MAKING - CRASH COURSE				G			SD	GAINING EXPERTISE IN APPAREL MAKING WILL FETCH JOBS.
4.	22UGVACNR	SURFACE ORNAMENTATION & APPAREL MAKING				G			SD	PAVES WAY FOR SELF EMPLOYMENT

REVISED COURSES:

S. NO.	COURSE CODE	COURSE TITLE	NO. & TITLE OF UNITS REVISED	% OF REVISION	NEED FOR REVISION	RELEVANCE TO	SCORE FR.
1.	19N1CC2	PHYSIOLOGY	IN UNIT V, MUSCULOSKELETAL SYSTEM HAS INCLUDED.	10%	INCLUSION OF THIS SYSTEM MAKE PHYSIOLOGY COMPLETE	G	EMP.
2.	19N1CC5	FOOD SCIENCE	IN UNIT IV, FACTORS AFFECTING COAGULATION, TESTING FRESHNESS IN EGG, FERMENTED NON-FERMENTED PRODUCTS. IN UNIT I DESIGNER FOODS INCLUDED.	10%	KNOWLEDGE OF COAGULATION, TESTING THE FRESHNESS OF EGG, FERMENTED NON-FERMENTED PRODUCTS. DESIGNER FOODS IS ESSENTIAL.	G	EMP & SD.
3.	19N3CC7	EXTENSION NATIONAL EDUCATION WELFARE & COMMUNICATION	NATIONAL WELFARE PROGRAMS FOR NOMEN INCLUDED	10%	ESSENTIAL INFORMATION	N	EMP
4.	19N4AC4	FOOD PRODUCTION & SERVICE LAB	IN UNIT I, II, III & IV, INDIAN CONTINENTAL, ORIENTAL CUISINE INCLUDED. COURSE MENU Specified as 3, 5 & 7 COURSE & BANQUET INCLUDED.	10%	INDEPTH KNOWLEDGE OF DIFFERENT TYPES OF COUSINE	G	EMP

5.	19N6CC13	CRECHE & PRESCHOOL MANAGEMENT	IN UNIT II, ROLE OF CARETAKER, PLANNING, ACTIVITIES FOR CHILDREN - WAS CHANGED TO SPECIFIC AGE GROUP,	CHILDREN, IN GENERAL HAS MADE SPECIFIC TO STUDY	G	EM
6.			IN UNIT IV, PRESCHOOL PROGRAM, TYPES OF PLAY WAS ADDED.	5% PLAY IN A DEEPER SENSE	N	EMR EMP
6.	19N5SB3	ENTREPRENEURIAL SKILLS - BAKING, FOOD PRESERVATION & ADULTERATION	IN UNIT I, INTRODUCTION TO BAKERY & BAKERY TECHNIQUE, ROLE OF INGREDIENTS IN BAKING INCLUDED. IN UNIT III, METHODS OF PRESERVATION TOMATO KETCHUP WAS INCLUDED.	KNOWLEDGE OF THE ROLE OF INGREDIENTS IS ESSENTIAL. SKILL IN PREPARING KETCHUP IS PROFITABLE.	N	SD
7.	19N6CC19	CLINICAL NUTRITION & DIET THERAPY - DIETETICS - TYPES / GRADES OF OBESITY INCLUDED. IN DIABETES MELLITUS TYPES OF DM, DIAGNOSIS INCLUDED.	IN UNIT II, KNOWLEDGE OF OBESITY & DIABETES. 10% MELLITUS IS ESSENTIAL TO BECOME AN IDEAL DIETETIAN	G	EMP	

8. 19N6SB5	ENTREPRENEURIAL SKILLS - NUTRITION COUNSELING	UNIT IV - COUNSELING CENTRE - TEACHING AIDS USED BY DIETETICIAN INTRODUCED	10%	SKILL IN PREPARING TEACHING AIDS IS OF UTMOST IMPORTANCE	N	SD.
------------	---	--	-----	--	---	-----

UPDATION OF OPEN EDUCATIONAL RESOURCES.

NA.

REVISION OF COURSES.

1. 19N6CC8	RESOURCE MANAGEMENT LAB.	In Unit II, Assayamat of Bouquet is added. In Unit V, applications of work simplification techniques is added.	5% 5%	Skill in Bouquet making can help students become entrepreneurs. Work simplification can help them to play the dual role of a home maker & career woman.	N N.	Entre Emp.
------------	--------------------------	--	----------	---	---------	---------------

2. 19N6CC2a

CLINICAL
NUTRITION
& DIETETICS
LAB.

In Unit I,
Planning meals
for a pregnant
work was
made
specific as
moderate
work.
For a
lactating
mother, it
was specified
as sedentary
worker.

In Unit III,
For an
adult woman
lady led worker,
it was
specified as
sedentary work.
For an adult
man - hand
working man,
it was
specified as
heavy work.

When the
type of
activity is
specified,
it will

enable
the
students

while
doing their
meal
planning.

9

Emy

3.

19N4CC11

CLOTHING &
FASHION

In Unit IV,
 haute couture,
 designer wear,
 street fashion

Enable
students to
develop fashion

Enable

			more added In Unit V, Fashion illustration, Basics of illustrations Block figures 8 Head theory - 10 head theory - 12 head theory were added.	10%	sketching skills.	G	Emp Entre
A.	19N3CC9	BASICS OF CLOTHING CONSTRUCTION LAB	In Unit V, sleeves & Collar were introduced	10%	To impart skill in constructing sleeves & collars	G	Emp SD.
B.	19N4SB2	Entrepreneurial skills - CAD	In Unit II, Elements of Design and Principles of Design were introduced	10%	To train students in drawing basic silhouettes	G	Emp SD.
G.	19N4AC3	FOOD PRODUCTION & SERVICE	In Unit III, Construction & writing of menu was included In Unit IV, Gueridon, self-service- catering was added.	5% 5%	In catering service, menu planning & construction are essential. These additional service are required for a catering person.	G	Emp SD

7.	19N3CC8	FIBER TO FABRIC	In Unit III, Satin weave, sateen weave & basket weave Rib weave are added. In Unit III, weft knitting warp knitting are added. Lacing, Netting, Braiding were added.	10%	Enable students to understand basic & functional finishes	G	En S
8.	19N6ME3	FAMILY DYNAMICS	In Unit III, Family conflicts Parent-child conflict inter-parental conflict, inter-generational family problems were added	10%	To update the students knowledge on contemporary problems in the family	G	En SS

NEW COURSES INTRODUCED

S. NO.	COURSE CODE	COURSE TITLE	RELEVANCE	SCOPE	NEED FOR INTRODUCTION
1.	21UG6SLN	HOSPITAL SELF LEARNING MANAGEMENT COURSE	G	Emp	PAVES WAY FOR A CAREER AS DIETETICIAN & HOSPITAL ADMINISTRATOR.

INTRODUCTION OF SKILL EMBEDDED CERTIFICATE / DIPLOMA / ADVANCED
DIPLOMA VALUE ADDED COURSES.
NA.

RUBRICS FOR INTERNSHIPS / PROJECTS.
NA.

COMMENTS:

The alumni appreciated the courses, especially
mentioning continuation being offered in
many courses.

Minutes of the Board of Studies - Upgradation of syllabus for M.Sc HUMAN NUTRITION AND NUTRACEUTICALS.

VENUE: SMART ROOM.

CONVENED ON: 05.04.2023 CONVENED AT: 2 pm.

ACTION TAKEN REPORT.

S. No.	COMMON SUGGESTIONS OFFERED IN THE PREVIOUS BOARD.	ACTION TAKEN FOR THE ACADEMIC YEAR 2022-2023.
1.	Introducing the self-learning course Geriatric Science for II semester and Sports Nutrition for IV semester.	As suggested the PG students were offered Geriatric Science in second semester and Sports Nutrition in the fourth semester as self learning papers.

REVISED COURSES.

COURSE CODE	COURSE TITLE	UNIT TO BE REVISED.	% OF REVISION	NEED FOR REVISION	RELEVANCE	SCORE
PPG1N1	ADVANCED HUMAN NUTRITION	In Unit V, nutrient interaction was elaborated	10%	Facilitates students to learn better.	G.	Emp
19PG1N3	APPLIED PHYSIOLOGY	In Unit V, Reproductive system was made more elaborate.	10%	In depth knowledge of male & female system.	G	Emp

3.	19 PG, 3 NII	FUNCTIONAL FOODS & NUTRACEUTICALS IN PREVENTIVE DIETETICS.	In Unit III, FFN FOR BONE & REPRODUCTIVE HEALTH - FFN PCOS - added.	10%.	RECENT TREND IN FEMALE REPRODUCTIVE HEALTH.	G.	Emp.
4.	19 PG, 3 NR	COMMUNITY NUTRITION	In Unit III - NUTRITION PROGRAM FOR ANEMIA, VITAMIN DEFICIENCY, IODINE DEFICIENCY, POSHAN ABHIYAN WAS ADDED.	10%.	Unit III & IV were made more specific	N	Emp.
			IN UNIT IV, ASSESSMENT OF NUTRITIONAL STATUS WAS CLASSIFIED AS DIRECT'S INDIRECT METHODS.				
5.	19 PG, 3 NR	INSTITUTIONAL MANAGEMENT	IN UNIT II, SPECIFIC SUBHEADINGS WERE GIVEN & ELABORATED.	10%.	INDEPTH KNOWLEDGE CAN BE IMPARTED TO PG STUDENTS	G	Emp.

REVISION OF COURSES

1.	19 PG, 2 NB	RESEARCH METHODOLOGY	In Unit II, Simple random sampling, cluster sampling				
----	-------------	----------------------	--	--	--	--	--

systematic sampling, stratified sampling; Non-random sampling, convenient sampling was specified. In Unit III, case study method, precautions while using secondary data were introduced. In Unit V, types of Plagiarism was specified.

Specific sub headings were added to give indepth knowledge of the students.

9

2. 19PG3 N14. COMMUNITY NUTRITION LAB.

In Unit I, use and interpretation of growth charts was introduced. In Unit IV, Planning nutrition education for individuals

To facilitate nutritional assessment and to interpret with the standards.

10%

		with different physiological conditions was introduced			
3. 19PG4N19.	FOOD MICROBIOLOGY LAB.	In Unit V, Methods to detect microbial quality by Reductase Test was included	5%	To detect the quality of milk	G Emp. SD.
4. 19PG4N18.	ADVANCED FOOD SCIENCE AND PROCESSING TECHNIQUES	In Unit IV, clarification pasteurisation homogenisation were included. Factors determining the quality of egg was added.	10%	The unit was made more specific	G Emp.
5. 19PG4NE3	FOOD SAFETY & QUALITY CONTROL.	In Unit I, Food Quality Management, Definition, Tenets of TQM, Benefits of TQM were introduced	10%	TQM concept has to be understood by students, in order to have a better understanding of FSQC.	

NEW COURSES INTRODUCED.

NA

INTRODUCTION OF PURELY SKILL EMBEDDED CERTIFICATE /
DIPLOMA / ADVANCED DIPLOMA VALUE ADDED COURSE.

NA.

APPROVAL OF PH.D. COURSE SYLLABUS

NA.

RUBERICS FOR INTERNSHIP / PROJECT.

NA

DETAILS OF MOUs SIGNED.

MOU with ICAR KRISHI VIGYAN KENDRA,
CENDECT, KAMATCHIPURAM, THENI.

OTHER SUGGESTIONS:

The University nominee offered to give exposure
to staff and students about Bonsai growing
techniques.

He also offered to help students in
microbiological assays.

Minutes of the Board of Studies - Upgradation of syllabus for B.Sc Home Science with Food Bio-Technology - TANSCHIE GRID - I YEAR - UG.

COURSES INTRODUCED (PART A)

S.No	COURSE CODE	COURSE TITLE WITH SEMESTER.	RELEVANCE	SCOPE	NEED FOR INTRODUCTION.
1.	CC1	HUMAN PHYSIOLOGY	G.	Emp.	As the anatomy and functions of various human systems forms the basis for learning other courses which comes under Home Science.
2.	CC2	FOOD SCIENCE	G	Emp.	Enables students to be introduced to the basics of Foods Food groups, Food pyramids, their functions and sources.
3.	CC3	BASIC COOKERY PRACTICALS	G	Emp & SD	Enables students to have hands on experience in preparation & service of innovative recipes for various Food groups.

S.No.	COURSE CODE	COURSE TITLE	RELEVANCE	SCOPE	NEED FOR INTRODUCTION
4.	EC1	GENERIC - FUNDAMENTAL OF ART AND DESIGN.	G	Emp & SD.	Overview of principles of design and their application in day-to-day.
5.	SECI	NME - WOMEN HEALTH AND WELLNESS	G	Emp.	To instill in students the need to prioritise Health and Wellness to carry out their daily activities.
6.	FC FOUNDATION COURSE.	BASICS OF HOME SCIENCE & LIFESPAN DEVELOPMENT	G.	Emp.	Understand the concept, scope & philosophy of Home Science. To learn the developmental tasks of different stages from infancy to old.

7.	CC4	HUMAN DEVELOPMENT	G	Emp.	To understand the developmental changes in the life span of an individual.
8.	CC5.	HUMAN NUTRITION	G.	Emp.	To help students understand the various nutrients present in food, their action, interaction, metabolism and food sources, effects of deficiency.
9.	CC6	NUTRITION PRACTICES	G	SD	To have hands on training in estimating nutrients qualitatively and quantitatively.
10.	EC2.	GENERIC NUTRITION FOR HEALTH AND PHYSICAL FITNESS	G.	Emp.	The knowledge of Health and Physical fitness will help students enjoy ideal health and nutrition.
11.	SEC2	NME - WOMEN HEALTH & WELLNESS	G	SD.	Knowledge about Health and Wellness

12.	SEC3	GENERIC GARMENT EMBELLISH MENT TECHNIQUES	G.	Entre + SD.	Acquire knowledge about hand and machine embroidery stitch types.
-----	------	---	----	----------------	---

M.Sc HUMAN NUTRITION AND NUTRACEUTICALS.

AS PER TANCHE GRID - I YEAR PG.

COURSES INTRODUCED (PART A).

S. No.	COURSE CODE	COURSE TITLE	RELEVANCE	SCOPE	NEED FOR INTRODUCTION
1.	CC1	ADVANCED DIETETICS	G	EMP.	To identify the nutritional needs through life cycle. Knowledge on appropriate nutritional management for various diseases.
2.	CC2.	ADVANCED HUMAN NUTRITION	G	Emp	To gain in-depth knowledge on classification, functions, metabolism & deficiency of macro & micronutrients.
3.	CC3	DIETETICS LAB	G.	EMP & SD.	HANDS ON EXPERIENCE IN PLANNING & PREPARATION OF NORMAL & THERAPEUTIC DIETS.

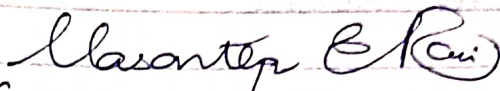
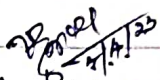
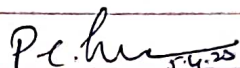

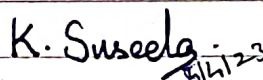
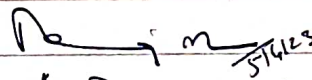
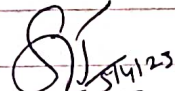
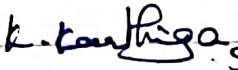
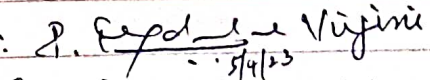
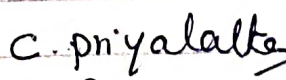
4.	EC1	ELECTIVE APPLIED PHYSIOLOGY	G.	Emp.	Knowledge on the anatomy & functions of various body systems.
5.	EC2	ADVANCED FOOD SCIENCE & PROCESSING TECHNIQUES	G.	Emp.	To provide in depth knowledge on production of processed food products. To understand the science behind processing of foods.
6.	SEC-1	SKILL ENHANCEMENT CLINICAL LABORATORY TECHNIQUES	G.	SD.	To understand The techniques of qualitative and quantitative analysis of body fluids.
7.	KECC1	SOFT SKILLS			
8.	CC4	CLINICAL NUTRITION & DIET THERAPY.	G.	Emp.	Gain knowledge on appropriate nutritional management of various disease conditions.
9.	CC5	NUTRITIONAL BIOCHEMISTRY	G.	Emp.	Understand the application of biochemistry in the field of foods and nutrition.

10.	CC6.	CNDT LAB	G.	SD.	To estimate the nutritional requirements and plan diets
11.	EC3.	SPORTS NUTRITION	G.	Emp.	To gain knowledge in nutritional demands and management of sports personnel.
12.	EC 4	RESEARCH METHODOLOGY	G.	Emp.	Gain knowledge to frame an experimental design to carry out research.
13.	SEC 2.	EDC - NUTRITION & DIETETICS	G.	Emp.	Understand the nutritional science and role of dietitians in planning therapeutic diets.

OTHER SUGGESTIONS:

- The Board members suggested that two students, presently studying the course, should be present for the BOS meeting.
- The industrialist suggested that a meeting could be arranged, inviting all the food industrialists to have an idea about their expectations & opportunities available for internships & career.
- The University nominee appreciated all the courses offered under Home Science and commented that

the courses are life-oriented and appropriate for students of this generation.

1. HEAD OF THE DEPT :  05/04/2023
(DR. VISANTHA ESTHER RANI)
2. UNIVERSITY NOMINEE :  5/4/23
(DR. U. RAMESH)
3. SUBJECT EXPERT :  5/4/23
(DR. P. C. JEMINA.)
4. INDUSTRIALIST :  5/4/23
(MR. SURAJ. SUNPARA SHANKAR)
5. ALUMNAE :  5/4/23
(MS. K. SUSHEELA).
6. DEAN OF SCIENCE :  5/4/23
(DR. A. RAJESWARI).
7. STAFF MEMBER :  5/4/23
(DR. S. SANTHI)
8. STAFF MEMBER :  5/4/23
(DR. K. KARTHIGA).
9. STAFF MEMBER :  5/4/23
(DR. MAGDELENE VIRJINI).
10. STAFF MEMBER :  5/4/23
(DR. C. PRIYALATHA).

11. STAFF MEMBER

C.D. 5/4/23
(DR. C. HELEN)

12. STAFF MEMBER

D. Mouna 5/4/23
(MS. D. MOUNA)

13. STAFF MEMBER

J. Josephine Jesinta 5/4/23
(MS. J. JOSEPHINE JESINTHA)

14. STAFF MEMBER

K. Nandipriya 5/4/23
(MS. K. NANDINI PRIYA)

15. STAFF MEMBER

A. Mabel Esther Paripurna 5/4/23
(MS. A. MABEL PARIPURNA ESTHER)

16. STAFF MEMBER

R. Bhavani 5/4/23
(MS. R. BHAVANI)

17. PRINCIPAL

VISION OF THE DEPARTMENT

To empower the potential Home Makers & Home Scientists with life management skills to face the multidimensional challenges and contribute towards the progress of Home and Nation.

MISSION OF THE DEPARTMENT

Empowering the budding youth to play the dual role of breadwinner and homemaker effectively.

Making them economically independent and emotionally stable.

Enhancing their managerial skills at home and in the workplaces.

Instilling their leadership qualities and organizational capabilities.

Promoting their entrepreneurial skills.

Fine tuning their intellect on the recent advances.

PROGRAMME EDUCATIONAL OBJECTIVES(PEO)

PEO 1	Our graduates will excel in playing the dual role of home maker and bread winner through the knowledge gained in all the major areas of HomeScience
PEO 2	TheskillsacquiredthroughHomeScienceeducationenablethehomescientists to fit various job roles in addition to becoming successful young entrepreneurs
PEO 3	Theywillbesociallyresponsiblecitizensbyexhibitingtheirprofessional competence by involving in lab to land programmes at regional,national,and international levels
PEO 4	Able to exhibit professional competence in diet planning and counselling.

GRADUATE ATTRIBUTES (GA)

Fatima College empowers her women graduates holistically. A Fatimaite achieves all-round empowerment by acquiring Social, Professional and Ethical competencies. A graduate would sustain and nurture the following attributes:

I. SOCIAL COMPETENCE	
GA1	Deep disciplinary expertise with a wider range of academic and digital literacy
GA2	Hone creativity, passion for innovation and aspire excellence
GA3	Enthusiasm towards emancipation and empowerment of humanity
GA4	Potentials of being independent
GA5	Intellectual competence and inquisitiveness with problem solving abilities befitting the field of research
GA6	Effectiveness in different forms of communication to be employed in personal and professional environments through varied platforms
GA7	Communicative competence with civic, professional, and cyber dignity and decorum
GA8	Integrity respecting the diversity and pluralism in societies, cultures, and religions
GA9	All-inclusive skill set to interpret, analyze, and solve social and environmental issues in diverse environments

GA1 0	Self-awareness that would enable them to recognize their uniqueness through continuous self-assessment in order to face and make changes building on their strengths and improving their weaknesses
------------------	---

GA11	Finesse to co-operate exhibiting team-spirit while working in group to achieve goals
GA12	Dexterity in self-management to control themselves in attaining the kind of life that they dream for
GA13	Resilience to rise instantly from their intimidating setbacks
GA14	Virtuosity to use their personal and intellectual autonomy in being life-long learners
GA15	Digital learning and research attributes
GA16	Cybersecurity competence reflecting compassion, care and concern towards the marginalized
GA17	Rectitude to use digital technology reflecting civic and social responsibilities in local, national, and global scenario
II. PROFESSIONAL COMPETENCE	
GA18	Optimism, flexibility, and diligence that would make them professionally competent
GA19	Prowess to be successful entrepreneurs and become employees of trans-national societies
GA20	Excellence in local and global job markets
GA21	Effectiveness in time management
GA22	Efficiency in taking up initiatives
GA23	Eagerness to deliver excellent service

GA24	Managerial skills to identify, commend and tap potentials
-------------	---

III. ETHICAL COMPETENCE	
GA25	Integrity and be disciplined in bringing stability lead in a systematic life promoting good human behaviour to build better society
GA26	Honesty in words and deeds
GA27	Transparency revealing one's own character as well as self-esteem to lead a genuine and authentic life
GA28	Social and environmental stewardship
GA29	Readiness to make ethical decisions consistently from the galore of conflicting choices paying heed to their conscience
GA30	Right life skills at the right moment

PROGRAMME OUTCOMES (PO)

On completion of B.Sc. Home Science with food Biotechnology Programme, the graduates would be able to

PO 1	Apply acquired scientific knowledge to solve complex issues
PO 2	Attain Analytical skills to solve complex cultural, societal, and environmental issues.
PO 3	Employ latest and updated tools and technologies to analyse complex issues.
PO 4	Demonstrate professional ethics that foster community, nation and environment building initiatives.

PROGRAMME SPECIFIC OUTCOMES(PSO)

On completion of B.Sc. Home Science with Food Biotechnology Programme, the graduates will have the following attributes

PSO1	Understanding the anatomy and functions of the various systems of the human body.
PSO2	Acquisition of skills in analyzing & estimating various blood parameters.
PSO3	Scientific knowledge in the area of food and nutrition, food processing and production.
PSO4	Acquisition of skills in planning therapeutic diets and diet counseling
PSO5	Scientific knowledge on the role of microbes in food processing and production.
PSO6	Acquisition of knowledge and skills in front office operation and housekeeping.
PSO7	Professional competence in planning different cuisines and styles of food service.
PSO8	Scientific knowledge in the conversion of fibre to fabric and technical textiles.
PSO9	Acquisition of skills in pattern making, garment construction, Wardrobe planning, care of clothes, surface Ornamentation and fashion illustration.
PSO10	Digital literacy in designing garments using Fashion Studio software and calculating the nutritive value of foods using Nutrical software
PSO11	Understanding the basic aspects that are related to the growth of children at different stages.
PSO12	Cognizance on children with special needs.
PSO13	Obtain knowledge on developmental changes that occur at different stages of lifespan.

PSO1 4	Vivid knowledge on the contemporary problems related to marriage Family
PSO1 5	Perception on theories & philosophies of preschool education.

PSO1 6	Professional competency in crèche and preschool management
PSO1 7	Creativethinkinginapplicationofelements&principle sofdesignininteriordecorationandclothing.
PSO1 8	Professional competency in the management of family resources
PSO1 9	Obtain skills in arrangement of tables and other accessories.
PSO2 0	Develop skills in the application of colors, furniture arrangement, lightings, flower arrangement and management of resources in day-to-day life.
PSO2 1	Professional competence attributing to an entrepreneur.
PSO2 2	Acquire skills to transform the standard of living of rural people.
PSO2 3	Practically assess the problems of people using participatory tools.

9

S

FATIMACOLLEGE (AUTONOMOUS), MADURAI 18

THE RESEARCH CENTRE OF HOMESCIENCE

For those who joined in June 2023 onwards

PROGRAMME CODE: UAHS

PART-I-TAMIL/FRENCH / HINDI-12 CREDITS

PART-I-TAMIL

Offered by The Research Centre of Tamil

S .N O	SE M.	COUR SEC ODE	COURSE TITLE	HR S	CR ED IT	CI A Mk s	ES E Mk s	TO T · MK s
1.	I	23TL1 C1	Language- General Tamil –I	5	3	40	60	100
2.	II	23TL2 C2	Language- General Tamil –I	5	3	40	60	100
3.	III	19TL3 C3	Language-Epic Literature	5	3	40	60	100
4.	IV	19TL4 C4	Language- Sangam Literature	5	3	40	60	100
			Total	20	1 2			

PART-I-FRENCH

Offered by The Department of French

S.N O	SE M.	COUR SEC ODE	COURSE TITLE	HR S	CR ED IT	CI A Mk s	ES E Mk s	TO T. MK s
1.	I	23EL1 L1	FRENCH	5	3	4 0	60	100
2.	II	23EL2 L1	FRENCH	5	3	4 0	60	100
3.	III	19RL3 C3	PART 1LANGUAGE FRENCH	5	3	4 0	60	100
4.	IV	19RL4 C4	PART 1LANGUAGE FRENCH	5	3	4 0	60	100
			Total	20	1 2			

PART-I-HINDI

Offered by The Department of Hindi

S. N O	SE M.	COUR SEC ODE	COURSE TITLE	HR S	CR E DI T	CI A Mk s	ES E Mk s	TO T. MK s
1.	I	23DL1 C1	PART1LANGUAGEH INDI-	5	3	40	6 0	10 0
2.	II	23DL2 C2	PART1LANGUAGEH INDI	5	3	40	6 0	10 0

3.	III	19DL3 C3	PART1LANGUAGEH INDI-	5	3	40	6 0	10 0
4.	IV	19DL4 C4	PART1LANGUAGEH INDI-	5	3	40	6 0	10 0
			Total	20	12			

PART-II-ENGLISH-12CREDITS

Offered by The Research Centre of English

S .N O	SE M.	COURS ECO DE	COURSE TITLE	HR S	CR ED IT	CI A Mk s	ES E Mk s	TO T · MK s
1.	I	23ELIL I	INTERMEDIATE COMMUNICATIV E ENGLISH	5	3	40	60	100
2.		23EL2 LI	ENGLISH FOR EMPOWERMENT(I NTERMEDIATE)	5	3	40	60	100
3.		19EL1 LA	ADVANCEDCOMM UNICATIVEENGLIS H	5	3	40	60	100
4.	II	19EL2 LB	ENGLISHCOMM UNICATIONSKILL S(BASIC)	5	3	40	60	100
5.		19EL2 LI	ENGLISHFO REMPOWER MENT(INTER MEDIATE)	5	3	40	60	100

			Total	20	1 2			
6.		19EL2 LA	ENGLISHFORCR EATIVEWRITING(ADVANCED)	5	3	40	60	100
7.	III	19EL3 LN	ENGLISHFORDI GITALERA	5	3	40	60	100
8.	IV	19EL4 LN	ENGLISHFORINTE GRATEDDEVELOP MENT	5	3	40	60	100

ART-III-MAJOR,ALLIED&ELECTIVES-95CREDIT

Major core

Course Including Practicals; 60 Credits

S. N O	SE M .	COURS E CODE	COURSETI TLE	HR S	CRE DI T	CI A M k s	ES E M k s	TO T .Mk s
1.	I	23N1CC 1	HUMAN DEVELOPMEN T	6	5	40	60	100
2.		23N2CC 2	HUMAN DEVELOPMEN T PRACTICAL	4	5	40	60	100
3	II	23N2CC 3	FOOD SCIENCE AND NUTRITIO N	6	5	40	60	100
		23N2CC 4	BASICCOOKE RY PRACTICAL	4	5	40	60	100
6.	III	19N3CC 7	EXTENSION EDUCATION AND COMMUNICATI ON	5	4	40	60	100
7.		19N3CC 8	FIBER TO FABRIC	4	3	40	60	100
8.		19N3CC 9	LAB IN BASICS OF CLOTHING CONSTRUCTIO N	3	2	40	60	100

9.	IV	19N4CC 10	BASICS OF FOOD BIOTECHNOL OGY	5	4	40	60	100
10.		19N4CC 11	CLOTHINGAN D FASHION	4	3	40	60	100
11.		19N4CC 12	LAB IN CLOTHING AND FASHION	3	2	40	60	100
12.	V	19N5CC 13	CRECHEAND PRESCHOOL MANAGEMENT	6	4	40	60	100
13.		19N5CC 14	LAB IN PRESCHOOL ADMINISTRATI ON	4	2	40	60	100
14.		19N5CC 15	HOUSING AND ART IN HOME	6	4	40	60	100
15.		19N5CC 16	LAB IN ART IN EVERYDAY LIFE	4	2	40	60	100
16.	VI	19N6CC 17	RESOURCE MANAGEMENT	5	4	40	60	100
17.		19N6CC 18	LAB IN RESOURCE MANAGEMENT	3	2	40	60	100
18.		19N6CC 19	CLINICAL NUTRITIONAN D DIETETICS	5	4	40	60	100

19.	19N6CC 20	LAB IN CLINICAL NUTRITIONAN D DIETETICS	3	2	40	60	100
-----	--------------	--	---	---	----	----	-----

20.	Total		84	60			
-----	--------------	--	-----------	-----------	--	--	--

ALLIEDCOURSES-20CREDITS

S.NO	SEM	COURSE CODE	COURSE TITLE	HRS	CREDITS	CI A Mks	ES E Mks	TOTAL MKs
1.	I	23C1GEN 1	CHEMISTRY FOR BIOLOGICAL SCIENCE S-I	3	1	40	60	100
2.		23C1GEN 2	CHEMISTRY PRACTICALS FOR BIOLOGICAL SCIENCE S-I	2	1	40	60	100
3.	II	23C2GEN 3	CHEMISTRY FOR BIOLOGICAL SCIENCE S –II	3	2	40	60	100
4.		23C2GEN 4	CHEMISTRY PRACTICALS FOR BIOLOGICAL SCIENCE S-II	2	1	40	60	100
5.		19N3AC 1	CATERING & HOTEL MANAGEMENT	3	3	40	60	100

	III		T					
6.		19N3AC 2	LAB IN CATERING & HOTEL MANAGEMENT	2	2	4 0	60	100
7.	IV	19N4AC3	FOOD PRODUCTION AND SERVICE	3	3	4 0	60	100
8.		19N4AC 4	LAB IN FOOD PRODUCTION AND SERVICE	2	2	4 0	60	100

ELECTIVES-15CREDITS

S. No	SEM	COURSECODE	COURSETITLE	H R S	CRE DIT	CI A M k s	E S E M k s	TO T . Mk s
1.	I	23N1GE1	FOOD, NUTRITION AND HEALTH	3	3	40	6 0	100
2.	2	23N1GE2	FOOD SCIENCE AND NUTRITION PRACTICAL	2	2	40	6 0	100

3.	IV	23N2GE3	NUTRITION FOR HEALTH AND PHYSICAL FITNESS	3	3	40	60	100
4.	IV	23N2GE4	NUTRITION AND WELLNESS PRACTICAL	2	2	40	60	100
1.	V	19N5ME1	TECHNICAL TEXTILES	5	5	40	60	100
2.	V	19N5ME2	FOOD BIOTECHNOLOGY					
3.	VI	19N6ME3	FAMILY DYNAMICS	5	5	40	60	100
4.	VI	19N6ME4	NUTRITION FOR HEALTH AND FITNESS	5	5	40	60	100
5.	VI	19N6ME5	FOOD AND DAIRYPROCESSING	5	5	40	60	100
6.	VI	19N6ME6	WOMEN AND ENTREPRENEURSHIP DEVELOPMENT	5	5	40	60	100

T-IV-20CREDITS

- **VALUE EDUCATION**
- **ENVIRONMENTAL AWARENESS**
- **NON MAJOR ELECTIVES**
- **SKILL BASED COURSES**

S. No.	Sem.	COURSE CODE	COURSE TITLE	HRS	CREDIT	CI A Mks	ES E Mks	TOTAL Mks
1.	I	23G1VE	Personal Values	1	1	40	60	100
2.		23N1SE1	NonMajorElective- Women's Health & wellness (Offered to other major Students)	2	2	40	60	100
3.		23N1FC	Fundamentals of Home Science	2	2	40	60	100
4.	II	23G2VE	Values for life	1	1	40	60	100
5.		23N2SE2	NonMajorElective- Women's Health & wellness (Offered to other major Students)	2	2	40	60	100
6.		23N2SE3	Garment Embellishment Techniques	2	2	40	60	100
7.	III	19G3EE	Environmental Studies	1	1	40	60	100
8.		19N3SB1	Entrepreneurial Skills-Surface	2	2	40	60	100

			Ornamentation					
9	IV	19G4E E	Environmental Education & Gender Studies	1	1	4 0	60	100
10		19N4SB 2	Entrepreneurial Skills–CAD	2	2	4 0	60	100
10		19N5SB 3	Entrepreneurial Skills– Baking , Adulteration and Food Preservation	2	2	4 0	60	100
10		19N5SB 4	Entrepreneurial Skills– Participatory Rural Appraisal	2	2	4 0	60	100
11.		19N6SB5	Entrepreneurial Skills– Nutrition Counselling	2	2	40	6 0	100
12.		19N6SB6	Entrepreneurial Skills– Interior Design and Decoration	2	2	40	6 0	100

OFF-CLASS PROGRAMMES-

ALL PART V SHIFT

S · N o	S E M ·	COURSE CODE	COURSE TITLE	HR S	CR ED IT	TOT. Mks
1.	I-	21A4PE D	Physical Education	30		
2.		21A4N SS	NSS			

3.	IV	21A4NCC	NCC	/SEM	1	100
4.		21A4WEC	Women Empowerment Cell			
5.		21A4ACUF	AICUF			

ADD ONCOURSES

COURSE CODE	COURSE TITLE	HRS.	CREDITS	SEMESTER IN WHICH THE COURSE IS OFFERED	CIA Mks	ES E M k s	TOTAL Mks
21UADCA	COMPUTER APPLICATIONS (offered by theses)	40	2	I&II	40	60	100
	Department of PGDCA for Shift I)						
21USDFCS	ONLINE SELF LEARNING COURSE- Foundation Course	40	2	II	40	60	100

	for Science						
21UAD3ES	Profession al Ethics	15	1	III	40	60	100
21UAD4ES	Personalit y Developm ent	15	1	IV	40	60	100
21UAD5ES	Family Life Education	15	1	V	40	60	100
21UAD6ES	Life Skills	15	1	VI	40	60	100
21UAD5HR	HUMANRI GHTS	15	2	V	100	-	100
21UAD6RS	OUTREAC HPROGR AMME- Reach Out to Society through Action ROSA	100	3	V&VI	100	-	100
21UAD6PR	PROJECT	30	4	VI	40	60	100
21UAD6RC	READING CULTURE	10/S emes ter	1	II-VI	-	-	-

SELFLEARNING EXTRA CREDIT COURSES

COUR SEC ODE	COURSE	H R S ·	CRED ITS	SEM EST ERIN WHIC HTH ECO URS E ISO F FER ED	CI A M K S	E S E M K S	TOT ALM ARK S
21UG1SLN	SELF LEARNING COURSES for ADVANCED LEARNERS Nutrition for Health and Fitness		2	I	40	60	100
21UG2SLNS	Basics of Psychology	-	2	II	40	60	100
22UG4SLZ	Public Health and Hygiene		2	IV	40	60	100
22UG4SLCN	Textile Colouration		2	IV	40	60	100

21UG5SLA	Consumerism		2	V	40	60	100
21UG6SLN	Hospital Management		2	VI	40	60	100

OFFCLASSPROGRAMMES

	COURSE	H R S ·	CRED ITS	SEME STER INWH ICHT HECO URSE ISO FFERED	CI A M K S	ES E M K S	TOT ALM ARK S
21UGVAH1	VALUEADD EDCRASHC OURSE Hand Embroidery	-	2	ANYS EMES TER	40	60	100
21UGVAC H1	VALUE ADDEDCE RTIFICAT ECOURSE Montessori Aid Teaching	-	2	ANYS EMES TER	40	60	100

I B.Sc. HOMESCIENCE WITH FOOD BIOTECHNOLOGY
SEMESTER –I

For those who joined in 2023 onwards

PROGRA MME CODE	COURSE CODE	COURSE TITLE	CATEGO RY	HRS/WE K	CREDITS
UAHS	23N1CC1	HUMAN DEVELOPMENT	Major Core	5	6

COURSE DESCRIPTION

This course gives a complete picture of the developmental changes takes place across the stages

COURSE OBJECTIVES

To enable students

- **Familiarizewiththegrowthprocessfromconceptionto confinement.**
- **Knowthe developmentof an individualfrom infancytoold age.**
- **Understandthe physical, psychological, and socialdevelopment of the individual**
- **from infancy to old age.**
- **Developanawarenessoftheproblemsofchildren,adolescent,andexceptionalchildren.**

UNITI **GROWTHANDDEVELOPMENT(20HRS.)**

Growthand Development

Meaning-growth anddevelopment,principlesofgoverninggrowthanddevelopment,

Prenatal Period

Conception, Pregnancy- Symptoms, Stages of prenatal development – Period of gestation, Period of embryo, Period of fetus. discomforts and complications

Practical - preparation of case study - observing various development-physical, motor,cognitive, creative, social, emotional, and intellectual ofaparticular child.

UNITII **InfancyandChildhood(20HRS.)**

Characteristics, physical, social, and emotional development, cognitive and language development during infancy, early childhood, and late childhood.

Children's play – meaning, types, importance stages. Parental disciplinary Techniques – merits and demerits

Practical – Analysis of various play techniques.

UNIT III Adolescence (15 HRS.)

Adolescence – physical and psychological changes, emotional, moral and social development, Problems of adolescence.

Delinquency – causes, prevention, and rehabilitation.

Practical - Socio-metric study of early adolescents. A survey on Juvenile Delinquency prevalence.

UNIT IV Adulthood and Old Age (10 HRS.)

Adulthood - Characteristics and developmental tasks, all aspects of development and vocational adjustments.

Old age - Characteristics of old age, physical changes, psychological changes. Place of the aged in Indian Society **Practical** – Survey on problems of old age.

UNIT V Exceptional Children (10 HRS.)

Introduction to Children with Special Needs and identification & Educational Rehabilitation Gifted children Orthopedically challenged Mentally retarded Hearing impaired Visually handicapped Learning disability

Practical - Visit to an institution for exceptional children.

References

1. Hurlock E.B., (1972). Child Development, New York: McGraw Hill Book company.
2. Hurlock, E.B., (1995): Developmental Psychology- A Life Span Approach, 5th (Ed.) New York: McGraw Hill Book Co.
3. Nanda V.K., (1998): Principles of Child Development, New Delhi: Anmol Publications Pvt. Ltd.
4. Rajammal P. Devadas and Jaya N. Muthu (2002). A Textbook of Child Development, New Delhi: Macmillan Publishers.
5. Singh, A. (2015). Foundations of Human Development: A Life Span Approach. New Delhi: Orient Black Swan.
6. Suriakanthi A., (1997). Child Development- An Introduction, Tamil Nadu: Kavitha Publishers.

- **Swaminathan, M (1998). The First Five Years: A Critical Perspective on Early Childhood**
-
- **Care and Education in India. New Delhi: Sage Publications.**

e- Learning Resources

- i. http://www.wbnsou.ac.in/online_services/SLM/BED/SEM-01_A1.pdf
- ii. <https://ncert.nic.in/textbook/pdf/kepy104.pdf>
- iii. <https://egyankosh.ac.in/bitstream/123456789/17134/1/Unit-3.pdf>
- iv. https://www.cukashmir.ac.in/departmentsdocs_16/Growth%20&%20Development%20-%20Dr.%20Ismail%20Thamarasseri.pdf

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT -1 CONCEPT OF HOME SCIENCE AND GROWTH & DEVELOPMENT(20HRS.)				
1.1	Meaning, Growth& Development Principles of growth and development.	3	Chalk & Talk	Black Board
1.2	. Pregnancy, Symptoms,	3	Chalk & Talk	LCD &White board
1.3	Prenatal stage - Period of gestation, Period of embryo and fetus	4	Lecture	PPT& Black Board
1.4	Pregnancy discomforts and complications.	4	Lecture	PPT &Specimens
1.5	- preparation of case study - observing various development-physical, motor, cognitive, creative, social, emotional, and intellectual ofaparticular child.	3	Lecture Lecture &Discussion	PPT &Smart Board
1.6	observing various development-creative, social, emotional, and intellectual of aparticular child	3	Lecture &Discussion	Google classroom
UNIT -2 DEVELOPMENT STAGES (InfancyandChildhood)(20HRS.)				

2.1	Infancy Neonate and Parturate Characteristics Physical and motor, & cognitive Development	2	Lecture	PPT& Black Board
2.2	Emotional, language and social development of Infancy	2	Chalk &Talk	Green Board
2.3	Characteristics, physical and social development of early childhood,	3	Chalk & Talk	Black Board
2.4	Characteristics, emotional and cognitive development of early childhood.	3	Chalk & Talk	LCD &White board
2.5	Characteristics, physical, and social development of latechildhood.	3	Chalk & Talk	LCD & Smart Board
2.6	Characteristics, emotional development, cognitiveand language development during latechildhood. stages.	2	Lecture	PPT & White board
2.7	Children's play – meaning, types.Importance of children's play	2	Lecture	PPT& Black Board
2.8	ParentaldisciplinaryTechniq ues–meritsanddemerits.	2	Lecture	Google classroom
2.9	Analysisof various playtechniques.	1	Demonstrati on	

UNIT -3 DEVELOPMENTAL STAGES (Adolescence) (15HRS.)				
3.1	Adolescence Physical and Motor development	2	Chalk & Talk	Black Board
3.2	Cognitive development	2	Lecture	PPT& Black Board
3.3	Emotional and Social development	2	Chalk & Talk	LCD & Smart Board
3.4	Language development and Problems	3	Chalk & Talk	Black Board
3.5	Problems of Adolescence	2	Chalk & Talk	Smart Board
3.6	Juvenile Delinquency causes	2	Chalk & Talk	Smart Board
3.7	Juvenile Delinquency causes and prevention	1	Chalk & Talk	Smart Board
3.8	Sociometric Study of Adolescence	1	Discussion	
UNIT -4 DEVELOPMENTAL STAGES (Adulthood- Old Age) (10HRS.)				
4.1	Middle Adulthood- Characteristicsanddevelop mentaltasks, Changes in Physical characteristics.	2	Lecture	Smart Board
4.2	Changes in Cognitive, Social and Emotional characteristics,	2	Chalk & Talk	LCD
4.3	vocational adjustments	2	Lecture	PPT & White board
4.4	Oldage-	1	Lecture	Smart Board

	Characteristicsofoldage,physicalchanges,			
4.5	Psychologicalchanges.	1	Lecture	Black Board
4.6	Placeof the aged inIndian Society	1		
4.7	Problems associated with Old Age -Survey.	1	Chalk & Talk	LCD
UNIT -5 ExceptionalChildren(10HRS.)				
5.1	ExceptionalChildren IntroductiontoChildrenwithSpecialNeeds Identification&Educational Rehabilitation	2	Lecture	Green Board Charts
5.2	Giftedchildren	1	Chalk & Talk	Green Board
5.3	Orthopedicallychallenged	1	Lecture	PPT & White board
5.4	Mental retardation,	1	Chalk & Talk	LCD
5.5	Mentallyretarded	1	Chalk & Talk	Smart Board
5.6	Hearingimpaired	1	Chalk & Talk	Smart Board
5.7	Visuallyhandicapped	1	Chalk & Talk	Smart Board
5.8	Learningdisability	1	Chalk & Talk	Smart Board
5.9	Practical- Visittoaninstitutionforexceptionalchildren	1	Chalk & Talk	Smart Board

• CIA	
• Scholastic	• 23
• Non Scholastic	• 2
•	• 25

EVALUATION PATTERN

SCHOLASTIC				NON - SCHOLASTIC	MARKS		
C1	C2	C3	C4	C5	CIA	ESE	Total
15		3	5	2	25	75	100

UG CIA Components

				Nos			
C1	-	Test (CIA 1)		1**	-	15	Mks
C2	-	Test (CIA 2)		1**	-	15	Mks
C3	-	Assignment		1	-	3	Mks
C4	-	Quiz		2 *	-	5	Mks
C5	-	Attendance			-	2	Mks

**** Average of C1 and C2 will be taken.**

***The best out of two will be taken into account**

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES	KNOWLEDGE LEVEL (ACCORDING TO REVISED BLOOM'S TAXONOMY)	PSOs ADDRESSED
CO 1	Describe the meaning and principles of growth & development and prenatal development	K1, K2	PSO11
CO 2	Explain developmental aspects during infancy, early and late childhood.	K1, K2	PSO13
CO 3	Evaluate developmental aspects during adolescence.	K1, K3	PSO11 and 13
CO 4	Identify the developmental tasks during adulthood and old age.	K2, K3	PSO12 and 13
CO 5	Introduction Children with Special Needs and identification & Educational Rehabilitation	K4, K2	PSO12

C04	3	1	1	1	1	1	1	1	1	1	1	
C05	1	1	1	1	1	1	1	1	1	1	1	

Mapping of COs with Pos

CO/ PSO	PO1	PO2	PO3	PO4
C01	1	3	1	1
C02	1	2	1	1
C03	1	1	1	1
C04	1	3	1	3
C05	2	2		3

Note: Strongly Correlated – 3

“ Moderately Correlated – 2 ”

Weakly Correlated -1

COURSE DESIGNER:
Staff Name:Dr.S.Santhi

Forwarded

By



(Dr.S.Santhi)

I B.Sc. HOME SCIENCE WITH FOOD BIOTECHNOLOGY
SEMESTER –I

(For those who joined in 2023 onwards)

PROGRAMME CODE	COURSE CODE	COURSE TITLE	CATEGORY	HRS/WEEK	CREDITS
UG-UAHS	23N1CC2	Human Developm ent	Practical	4	5

COURSE DESCRIPTION

The course provides a detailed insight on the basic developmental changes in different stages.

.

COURSE OBJECTIVES

Describe the developmental changes in different stages of life.

Use the different methods of child study.

Analyze the social development of adolescence

Identify the prevalence of Juvenile Delinquency locally.

Discuss the problems and characteristics of old age and exceptional children.

UNIT-I Developmental Changes**[12 Hrs]**

Preparation of case study - observing various development-physical, motor, cognitive, creative, social, emotional, and intellectual development of a particular child.

UNIT-II Activities For PreSchool**[12Hrs]**

Planning activities for preschool programme – stories with suitable aids, rhymes, science experiments, indoor and outdoor games.

Visit to a preschool.

[12 Hrs]**UNIT-III Equipment**

Socio - metric study of early adolescents.

Construction of low-cost play equipment

[12 Hrs]**UNIT-IV Old Age Problems**

Survey on problems of old age.

UNIT-V Visit to an Institution**[12 Hrs]**

Visit to an institution for exceptional children.

A survey on Juvenile Delinquency prevalence

REFERENCES:

TEXT BOOKS

- **Hurlock E.B., (1972). Child Development, New York: McGraw Hill Book company.**

2. Hurlock, E.B., (1995): Developmental Psychology - A Life Span Approach, 5th (Ed.) New York: McGraw Hill Book Co.

3. Nanda V.K., (1998): Principles of Child Development, New Delhi: Anmol Publications Pvt. Ltd.

4. Rajammal P., Devadas and Jaya N. Muthu (2002). A Textbook of Child Development, New Delhi: Macmillan Publishers.

5.Singh,A.(2015).FoundationsofHumanDevelopment:ALifeSpanApproach.NewDelhi:
OrientBlack Swan.

6.SuriakanthiA.,(1997).ChildDevelopment–
AnIntroduction,TamilNadu:KavithaPublishers

REFERENCE BOOKS

Open Educational Resources:

1.http://www.wbnsou.ac.in/online_services/SLM/BED/SEM-01_A1.pdf

2.<https://ncert.nic.in/textbook/pdf/kepy104.pdf>

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

https://www.cukashmir.ac.in/departmentsdocs_16/Growth%20&%20Development2

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT -1 [12 Hrs]				
1.1	Preparation of case study.	4	Discussion	.
1.2	observing various development-physical, motor, cognitive, creative	4	Discussion	
1.3	social, emotional, and intellectual development of a particular child	4	Discussion	
UNIT -2 [12 Hrs]				
2.1	Planning activities for preschool programme	2	Lecture	Green Board Charts
2.2	stories with suitable aids, rhymes, science experiments	4	Chalk & Talk	Green Board
2.3	indoor and outdoor games	4	Discussion	Black Board
2.4	Visit to preschool	3	Demonstration	Charts
UNIT -3 [12 Hrs]				
3.1	Socio –metric study of early adolescents	4	Discussion	Green Board Charts
3.2	Construction of low cost equipment	8	Discussion	Green Board

UNIT IV [12 Hrs]				
4.1	Survey on problems of old age.	12	Discussion	Visit
UNIT V[12 Hrs]				
5.1	Visit to institution for exceptional children	6	Discussion	Visit
5.2	A Survey on juvenile delinquency prevalence	6	Discussion	Visit

• CIA	
• Scholastic	• 23
• Non Scholastic	• 2
•	• 25

EVALUATION PATTERN

SCHOLASTIC				NON - SCHOLASTIC	MARKS		
C1	C2	C3	C4	C5	CIA	ESE	Total
15		3	5	2	40	60	100

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES	KNOWLEDGE LEVEL (ACCORDING TO REVISED BLOOM'S TAXONOMY)	PSOs ADDRESSED
CO 1	Explain developmental aspects during infancy, early and late childhood	K1, K4	PSO1
CO 2	Elaborate on activities of preschool.	K1, K2	PSO1, PSO2
CO 3	Describe the various play equipment.	K1, K3, K4	PSO1
CO 4	Outline the problems of old age.	K2, K4	PSO1
CO 5	Trace the growth of exceptional children.	K2, K4	PSO1

Mapping of COs with PSOs

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	3	2	2	3	2	2
CO2	3	3	2	3	2	2

C03	3	3	3	3	2	2
C04	3	3	2	3	2	2
C05	3	3	2	3	2	2
Weightage of course contributed to each PSO	15	14	11	15	10	10

Note: Strongly Correlated – 3, Moderately Correlated – 2, Weakly Correlated -1

COURSE DESIGNER:

1. Staff Name: Dr. S.Santhi

Forwarded By



(Dr.S.Santhi)

I B.Sc. HOME SCIENCE WITH FOOD BIO TECHNOLOGY
SEMESTER –I

For those who joined in 2023 onwards

PROGRAMM E CODE	COURSE CODE	COURSE TITLE	CATEGOR Y	HRS/WEEK	CREDIT S
UAHS	23N1GE1	FOOD, NUTRITION AND HEALTH	Elective	3	3

COURSE DESCRIPTION

This course helps to understand the basic concepts of balanced diet for people of different ages besides focusing on the consequences of malnutrition and the deficiency diseases and the diseases caused due to poor hygiene.

COURSE OBJECTIVES

- To understand the components of health, nutrition and deficiency diseases of various nutrients
- To learn the menu planning methods for family members.
- To learn the clinical aspects of disease conditions and diet therapy.

UNITS

Unit I : Nutrition and dietary nutrients: [12 Hrs]

Basic concepts of Food: Components and nutrients. Concept of balanced diet, nutrient requirements and dietary pattern for different groups viz., adults,

pregnant and nursing mothers, infants, school children, adolescents and elderly people.

Unit II: Macro nutrients and micronutrients:[12 Hrs]

Macronutrients. Carbohydrates, Lipids, Proteins- Definition, Classification, their dietary source and role. Micronutrients. Vitamins- Water-soluble and Fat-soluble vitamins- their sources and importance. Important minerals viz., Iron, Calcium, Phosphorus, Iodine, Selenium and Zinc: their biological functions.

Unit III: Malnutrition and nutrient deficiency diseases:[12 Hrs]

Definition and concept of health: Common nutritional deficiency diseases- Protein Malnutrition (e.g., Kwashiorkor and Marasmus), Vitamin A deficiency, Iron deficiency and Iodine deficiency disorders- their symptoms, treatment, prevention and government initiatives.

Unit IV: Life style dependent diseases[12 Hrs]

Life style dependent diseases- hypertension, diabetes mellitus, and obesity their causes and prevention. Social health problems- smoking, alcoholism, narcotics. Acquired Immuno Deficiency Syndrome (AIDS): causes, treatment and prevention.

Unit V: Diseases caused by microorganisms:[12 Hrs]

Food hygiene: Potable water- sources and methods of purification at domestic level. Food and Water-borne infections: Bacterial diseases: cholera, typhoid fever - viral diseases: Hepatitis, Poliomyelitis - Protozoan diseases: amoebiasis, giardiasis - Parasitic diseases: taeniasis and ascariasis their transmission, causative agent, sources of infection, symptoms and prevention. Causes of food spoilage and its prevention.

BOOK REFERENCES:

• **Antia F.P. (1989) Nutrition Dietetics, Oxford University Press**

1. Mudambi, S.R. and Rajagopal, M.V. (2007). Fundamentals of Foods, Nutrition and Diet Therapy; Fifth Ed.; New Age International Publishers.
2. Srilakshmi B (2012) *Dietetics*, New Age International (P) Ltd.
3. Swaminathan M (1988) *Advanced textbook on Food and Nutrition*, Vol I and Vol II, The Bangalore Printing and Publishing Co., Ltd. Bamji, M.S.; Rao, N.P. and Reddy, V. (2009). Text Book of Human Nutrition; Oxford & IBH Publishing Co. Pvt Ltd.
4. Lakra, P. and Singh M.D. (2008). Textbook of Nutrition and Health; First Ed; Academic Excellence.
5. Gibney, M.J. et al. (2004). Public Health Nutrition; Blackwell Publishing.

JOURNAL REFERENCES:

1. The Indian Journal of Nutrition & Dietetics.
2. Clinical Journal of Nutrition & Dietetics

OPEN EDUCATIONAL RESOURCES:

1. <https://open.umn.edu/opentextbooks/textbooks/622>
2. <https://pressbooks.oer.hawaii.edu/humannutrition/>
3. https://en.wikibooks.org/wiki/Fundamentals_of_Human_Nutrition
4. <https://www.youtube.com/watch?v=sorIaN6vRBI>
5. <https://oer.galileo.usg.edu/cgi/viewcontent.cgi?article=1006&context=health-textbooks>

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT -1 Nutrition and dietary nutrients:[12 Hrs]				
1.1	Basic concepts of Food: Components and nutrients. Concept of balanced diet,	4	Lecture	PPT
1.2	Nutrient requirements and dietary pattern for different groups viz., adults, pregnant and nursing mothers	5	Chalk & Talk	Black Board
1.3	Infants, school children, adolescents and elderly people	3	Chalk & Talk	Black Board
UNIT -2 Macro nutrients and micronutrients[12 Hrs]				
2.1	Macronutrients. Carbohydrates, Lipids, Proteins- Definition, Classification, their	4	Lecture	PPT

	dietary source and role			
2.2	Micronutrients.Vitamins- Water-soluble and Fat-soluble vitamins- their sources and importance	4	Chalk & Talk	Black Board
2.3	Important minerals viz., Iron, Calcium, Phosphorus, Iodine, Selenium and Zinc: their biological functions	4	Lecture	PPT
UNIT -3 Malnutrition and nutrient deficiency diseases:[12 Hrs]				
3.1	Definition and concept of health: Common nutritional deficiency diseases	2	Lecture	PPT
3.2	ProteinMalnutrition (e.g., Kwashiorkor and Marasmus)	3	Chalk & Talk	Black Board
3.3	Vitamin A deficiency- their symptoms, treatment, prevention and government initiatives	3	Chalk & Talk	Black Board
3.4	Iron deficiency - their symptoms, treatment, prevention and government initiatives	2	Lecture	PPT
3.5	Iodine deficiency disorders- their symptoms, treatment, prevention and government initiatives	2	Chalk & Talk	Black Board
UNIT -4 Life style dependent diseases[12 Hrs]				
4.1	hypertension, diabetes mellitus, and obesity their causes and prevention	4	Lecture	PPT
4.2	Social health problems- smoking, alcoholism, narcotics	4	Lecture	PPT
4.3	AcquiredImmuno Deficiency Syndrome (AIDS): causes,	4	Chalk & Talk	Black

	treatment and prevention			Board
UNIT -5 Diseases caused by microorganisms [12 Hrs]				
5.1	Food hygiene: Potable water-sources and methods of purification at domestic level.	4	Chalk & Talk	Black Board
5.2	Bacterial diseases: cholera, typhoid fever - viral diseases: Hepatitis, Poliomyelitis	4	Chalk & Talk	Black Board
5.3	Protozoan diseases: amoebiasis, giardiasis - Parasitic diseases: taeniasis and ascariasis. Causes of food spoilage and its prevention	4	Lecture	PPT & White board

• CIA	
• Scholastic	• 23
• Non Scholastic	• 2
•	• 25

EVALUATION PATTERN

SCHOLASTIC				NON - SCHOLASTIC	MARKS		
C1	C2	C3	C4	C5	CIA	ESE	Total
15		3	5	2	25	75	100

UG CIA Components

		Nos		
C1	- Test (CIA 1)	1**	-	15 Mks
C2	- Test (CIA 2)	1**	-	15 Mks
C3	- Assignment	1	-	3 Mks
C4	- Quiz	2 *	-	5 Mks
C5	- Attendance		-	2 Mks

**** Average of C1 and C2 will be taken.**

***The best out of two will be taken into account**

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES	KNOWLEDGE LEVEL (ACCORDING TO REVISED BLOOM'S TAXONOMY)	PSOs ADDRESSED
CO 1	Describe different nutrition terms and Determine the importance of nutrition in the different stages of lifespan.	K2	PSO2
CO 2	Explain the role of macro and micronutrients in human nutrition.	K2	PSO2
CO 3	Estimate the functions and deficiency effects of macro and micronutrients.	K3	PSO2
CO 4	Analyze the principles of diet therapy in the management of life style dependent diseases.	K3	PSO3
CO 5	Determine the prevention and treatment of diseases caused by	K4	PSO3

	microorganisms		
--	----------------	--	--

Mapping of COs with PSOs

CO / PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PSO 8	PSO 9	PSO 10	PSO 11	PSO 12	PSO 13	PSO 14	PSO 15
CO1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1
CO2	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1
CO3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1
CO4	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1
CO5	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1

Mapping of COs with POs

CO/ PSO	PO1	PO2	PO3	PO4
CO1	3	1	1	1
CO2	2	1	1	1
CO3	2	2	2	1
CO4	2	1	1	1

CO5	2	1	1	1
-----	---	---	---	---

COURSE DESIGNER:

1. Mrs. D. Mouna

Forwarded By



(Dr.S.Santhi)

**I.B.Sc.Home Science with Food Biotechnology
SEMESTER –I**

For those who joined in 2023 onwards

PROGRAMME CODE	COURSE CODE	COURSE TITLE	CATEGORY	HRS/WEEK	CREDITS
UG-UAHS	23N1GE 2	FOOD SCIENCE AND NUTRITION PRACTICAL	Practical	2	2

COURSE DESCRIPTION

This course provides culinary knowledge and imparts practical skills in food preparations.

COURSE OBJECTIVES

- To learn basic safety and sanitation practices related to food preparation.
- To practice accurate measuring techniques of the ingredients.
- To apply appropriate food preparation techniques in preparing recipes from different food groups.
- To identify and estimate sugars, protein and minerals in food samples.

UNITS

UNIT –I EXPERIMENTAL COOKERY AND PREPARATION OF RECIPES

(10 HRS.)

- **Cereal cookery – Gelatinization, Dextrinization, cooking methods of rice, recipe preparations.**
- **Pulse cookery – Factors affecting cooking quality, recipe preparations.**
- **Vegetable cookery – Effect of cooking on pigments-Chlorophyll and Carotenoids, recipe preparations**
- **Fruit cookery – Factors affecting enzymatic browning, recipe preparations**
- **Milk & Egg cookery – Factors affecting cooking quality of egg, recipe preparations**
- **Fleshy foods cookery - recipe preparations**

UNIT –II QUALITATIVE ANALYSIS OF MONOSACCHARIDE (10 HRS.)

Monosaccharide - Glucose, Fructose, Galactose

UNIT –III QUALITATIVE ANALYSIS OF DISACCHARIDES (10 HRS.)

Disaccharide - Sucrose, Lactose and Maltose

UNIT –IV QUALITATIVE ANALYSIS OF NUTRIENTS (5 HRS.)

- **Protein**
- **Minerals**

UNIT –V QUANTITATIVE ANALYSIS OF NUTRIENTS (10 HRS.)

- **Reducing sugar**
- **Vitamin C**

REFERENCES:

1. Thangam E. Philip (1995). *Modern Cookery*, Orient Longmans Limited, New Delhi.
2. Benion Marion (1980). *Introductory foods*, Macmillan, New York.

3. Fox B.A., Cameron A.G. (1982) *Food Science a Chemical Approach* Hodden and Stoughton Ltd., Great Britain.

4. Peckham G.C (1978) *Foundations of Food preparation* Macmillan Co, New York.

OPEN EDUCATIONAL RESOURCES:

- <http://www.nin.res.in>
- <http://www.cftri.res.in>

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT -1 EXPERIMENTAL COOKERY AND PREPARATION OF RECIPES				
1.1	Cereal cookery – Gelatinization, Dextrinization, cooking methods of rice, recipe preparations	2	Experimental cooking	Required ingredients and equipment
1.2	Pulse cookery – Factors affecting cooking quality, recipe preparations.	2	Experimental cooking	Required ingredients and equipment
1.3	Vegetable cookery – Effect of cooking on pigments- Chlorophyll and Carotenoids, recipe preparations	2	Experimental cooking	Required ingredients and equipment
1.4	Fruit cookery – Factors affecting enzymatic browning, recipe preparations	2	Experimental cooking	Required ingredients and equipment
1.5	Milk & Egg cookery – Factors affecting cooking quality of egg, recipe preparations Fleshy foods cookery - recipe preparations	2	Experimental cooking	Required ingredients and equipment

UNIT -2 QUALITATIVE ANALYSIS OF MONOSACCHARIDE				
2.1	Glucose	4	Lecture cum demonstration	Required chemicals and glasswares
2.2	Fructose	3	Lecture cum demonstration	Required chemicals and glasswares
2.3	Galactose	3	Lecture cum demonstration	Required chemicals and glasswares
UNIT -3 QUALITATIVE ANALYSIS OF DISACCHARIDES				
3.1	Sucrose	4	Lecture cum demonstration	Required chemicals and glass wares
3.2	Lactose	3	Lecture cum demonstration	Required chemicals and glass wares
3.3	Maltose	3	Lecture cum demonstration	Required chemicals and glass wares
UNIT -4 QUALITATIVE ANALYSIS OF NUTRIENTS				
4.1	Protein	3	Lecture cum demonstration	Required chemicals and glass wares
4.2	Minerals	2	Lecture cum demonstration	Required chemicals and glass wares
UNIT -5 QUANTITATIVE ANALYSIS OF NUTRIENTS				
5.1	Reducing sugar	5	Lecture cum	Required

			demonstration	chemicals and glass wares
5.2	Vitamin C	5	Lecture cum demonstration	Required chemicals and glass wares

EVALUATION PATTERN

SCHOLASTIC				NON - SCHOLASTIC	MARKS		
C1	C2	C3	C4	C5	CIA	ESE	Total
10	10	10	5	5	40	60	100

C1 – Internal Test - 1

C2 – Internal Test - 2

C3– Model Practical Exam

C4 – Record

C5 – Non- Scholastic

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES	KNOWLEDGE LEVEL (ACCORDING TO REVISED BLOOM'S TAXONOMY)	PSOs ADDRESSED
CO 1	Recall the principles of various cooking methods.	K1	PSO3
CO 2	Classify edible and non-edible portions of food stuffs	K2	PSO3
CO 3	Plan the preparation of recipes based on different food groups	K3, K4	PSO3

CO 4	Distinguish the factors affecting the food components during cooking process	K4	PSO3
CO 5	Identify sugars, protein and minerals present in food samples	K1, K3	PSO3
CO6	Explain the quantitative analysis of reducing sugar and ascorbic acid	K2, K3	PSO3

Mapping of COs with PSOs

CO/ PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PSO 8	PSO 9	PSO 10	PSO 11	PSO 12
CO1	1	1	1	1	1	1	1	1	1	1	1	1
CO2	1	1	1	1	1	1	1	1	1	1	1	1
CO3	1	1	1	1	1	1	1	1	1	1	1	1
CO4	1	1	1	1	1	1	1	1	1	1	1	1
CO5	1	1	1	1	1	1	1	1	1	1	1	1
CO/ PSO	PSO 13	PSO 14	PSO 15	PSO 16	PSO 17	PSO 18	PSO 19	PSO 20	PSO 21	PSO 22	PSO 23	
CO1	1	1	1	1	1	1	1	1	1	1	1	
CO2	1	1	1	1	1	1	1	1	1	3	1	
CO3	1	1	1	1	1	1	1	1	1	1	3	
CO4	1	1	1	1	1	1	1	1	1	1	1	
CO5	1	1	1	1	1	1	1	1	1	1	1	

Mapping of COs with POs

CO/ PSO	PO1	PO2	PO3	PO4
CO1	3	1	1	3
CO2	1	1	1	1
CO3	3	1	1	3
CO4	1	1	1	1
CO5	1	1	1	1

Note: ♦ Strongly Correlated – 3

♦ Moderately Correlated –

2

◆ Weakly Correlated -1

COURSE DESIGNER:

1. **Mrs.C.Helen**

Forwarded By



Dr.S.Santhi

I B.Sc. HOME SCIENCE WITH FOOD BIO TECHNOLOGY
SEMESTER –I

For those who joined in 2023 onwards

PROGRAMME CODE	COURSE CODE	COURSE TITLE	CATEGORY	HRS/WEEK	CREDITS
UG-UAHS	23NISE1/2	Women's Health & Wellness	Lecture	2	2

COURSE DESCRIPTION

This course helps to understand the basic concepts on health, nutrition and deficiency diseases of various nutrients

COURSE OBJECTIVES

To understand the diverse factors that has a bearing on women's health.

To Highlight different aspects of health that contributes to a good lifestyle for women across the globe.

UNITS

UNIT –I **NUTRITION AND HEALTH** (15 HRS.)

Nutrition for Women - Dietary Guidelines for a healthy lifestyle, Current concepts pertaining to Balanced Diets, Nutrient requirements for young and older women with special focus on Protein, Iron, Vitamin D and Calcium, Factors affecting nutrient intake in women- Socioeconomic, Environmental conditions, Health conditions; Consequences of Eating disorders in young women.

UNIT –II **PHYSICAL HEALTH** (15 HRS.)

Physical Health - Significance of Body weight and Body composition parameters, Benefits of Aerobic, Flexibility and Strength training exercises- on General health, Bone health, and risks associated with NCD's.

UNIT –III **REPRODUCTIVE HEALTH** (10 HRS.)

Reproductive Health - Menstrual Health, Pregnancy and Lactation, Pre- and Post-Menopausal concerns- preventive measures, sexually transmitted diseases- an overview.

UNIT –IV **MENTAL HEALTH** (10 HRS.)

Mental Health - Common mental health problems - Trends and issues relating to women, Depression, Anxiety and coping with Stress, Strategies to improve mental health- learning new skills and hobbies, Relaxation techniques such as yoga and meditation..

UNIT –V **SOCIAL HEALTH** (10 HRS.)

Social Health - Balancing home and career, strengthening relationships, enhancing communication skills and Personality Development, technological advancements and its impact, Dealing with domestic violence, and harassment issues.

REFERENCES:

TEXT BOOKS

1. Srilakshmi.B.(2010). *Food Science*, New age International Pvt.Ltd., New Delhi.
2. Swaminathan. M (2010), *Handbook of Food and Nutrition*, The Bangalore Press, Bangalore.

REFERENCE BOOKS:

2. Lanza di Scalea T, Matthews KA, Avis NE, et al. (2012) Role stress, role reward, and
3. mental health in a multiethnic sample of midlife women: results from the Study of
4. Women's Health Across the Nation (SWAN). *J Women's Health*; 21(5):481-489.
5. Mahan K and Sylvia E. Stump (2000) *Krause's Food Nutrition and Diet Therapy*,
6. Saunders, USA.. Minkin M. J. and Wright C. V. (2003) *The Yale Guide to Women's Reproductive*
7. *Health from menarche to menopause*. Yale University Press, London
8. 4.Sizer F. S. and Whitney E. (2014) *Nutrition: Concepts & Controversies*. 13 th Ed.,
9. Wadsworth, Cengage Learning, USA.. Sperry L. (2016) *Mental Health and Mental Disorders*. ABC-Clio, Californi
- Williams M.H., Anderson D.E., Rawson E.S. (2013) *Nutrition for Health, Fitness and*
- Sport. McGraw Hill, New York.. Wrzus C, Hänel M, Wagner J, Neyer FJ. (2013) Social network changes and life events across the life span: a meta-analysis. *Psychol Bull*;139(1):53-80..

OPEN EDUCATIONAL REFERENCES:

https://www.nhp.gov.in/social-health_pg
<https://ncert.nic.in/textbook/pdf/jehp112.pdf>
<https://ncert.nic.in/textbook/pdf/iehp113.pdf>
<https://ncert.nic.in/textbook/pdf/lebo104.pdf>
<https://www.nih.gov/health-information/social-wellness-toolkit>

<https://www.cdc.gov/reproductivehealth/womensrh/index.htm>
<https://www.nimh.nih.gov/health/topics/caring-for-your-mental-health>
[https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-](https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response)

response

□ <https://www.cdc.gov/mentalhealth/learn/index.htm>

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT -1 NUTRITION AND HEALTH (15 HRS.)				
1.1	Definition – Health, Nutrition, Malnutrition, Adequate Nutrition	3	Chalk & Talk	Black Board
1.2	Balanced Diet, Nutritional status	4	Lecture	PPT
1.3	Definition of Fitness, Components of Fitness	4	Lecture	PPT
1.4	Types of physical activity and their energy consumption level	4	Lecture	Videos
UNIT -2 PHYSICAL HEALTH (15 HRS.)				
2.1	Physical Health - Significance of Body weight and Body composition Parameters.	5	Chalk & Talk	Black Board
2.2	Benefits of Aerobic, Flexibility and Strength training exercises- on General	5	Lecture	PPT
2.3	Bone health, and risks associated with NCD's	5	Lecture	PPT
UNIT -3 REPRODUCTIVE HEALTH HEALTH(10 HRS.)				
3.1	Reproductive Health - Menstrual Health,	4	Lecture	PPT

	Pregnancy and Lactation,			
3.2	Pre- and Post-Menopausal concerns-preventive measures	4	Lecture	PPT
3.3	Sexually transmitted diseases-an overview	2	Lecture	PPT
UNIT -4 MENTAL HEALTH (12 HRS.)				
4.1	Mental Health - Common mental health problems - ,	4	Chalk & Talk	Black Board
4.2	Trends and issues relating to women, Depression, Anxiety and coping with Stress,	4	Lecture	PPT
4.3	Strategies to improve mental health- learning new skills and hobbies, Relaxation techniques such as yoga and meditation	4	Chalk & Talk	Black Board
UNIT -5 SOCIAL HEALTH (10 HRS.)				
5.1	Social Health - Balancing home and career, strengthening relationships,.	4	Chalk & Talk	Black Board
5.2	Enhancing communication skills and Personality	3	Lecture	PPT

5.3	Development, technological advancements and its impact, Dealing with domestic violence, and harassment issues	3	Demonstration	PPT
-----	---	---	---------------	-----

• CIA	
• Scholastic	• 23
• Non Scholastic	• 2
•	• 25

EVALUATION PATTERN

SCHOLASTIC				NON - SCHOLASTIC	MARKS		
C1	C2	C3	C4	C5	CIA	ESE	Total
15		3	5	2	25	75	100

UG CIA Components

				Nos			
C1	-	Test (CIA 1)		1**	-	15	Mks
C2	-	Test (CIA 2)		1**	-	15	Mks
C3	-	Assignment		1	-	3	Mks
C4	-	Quiz		2 *	-	5	Mks
C5	-	Attendance			-	2	Mks

***The best out of two will be taken into account**

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES	KNOWLEDGE LEVEL (ACCORDING TO REVISED BLOOM'S TAXONOMY)	PSOs ADDRESSED
CO 1	Define the terminologies related to nutrition and health	K1	PSO3
CO 2	Describe the benefits of exercise	K2	PSO3
CO 3	Identify the problems of menstrual health	K1 & K3	PSO3
CO 4	Classify the mental health and strategies to improve mental health.	K2	PSO3
CO 5	Describe the social health and its relationship.	K3	PSO3

Mapping of COs with PSOs

[illegible]

CO5	1	1	3	1	1	1	1	1	1	1	1	1
CO/ PSO	PSO 13	PSO 14	PSO 15	PSO 16	PSO 17	PSO 18	PSO 19	PSO 20	PSO 21	PSO 22	PSO 23	
CO1	1	1	1	1	1	1	1	1	1	1	1	
CO2	1	1	1	1	1	1	1	1	1	1	1	
CO3	1	1	1	1	1	1	1	1	1	1	1	
CO4	1	1	1	1	1	1	1	1	1	1	1	
CO5	1	1	1	1	1	1	1	1	1	1	1	

Mapping of COs with POs

CO/ PSO	PO1	PO2	PO3	PO4
CO1	2	2	2	2
CO2	2	2	2	2
CO3	2	2	2	2
CO4	2	2	2	2
CO5	1	1	1	1

Note: ♦ Strongly Correlated – **3**
2 ♦ Weakly Correlated – **1**

♦ Moderately Correlated –

COURSE DESIGNER

Staff Name: Dr.C.Priyalatha

Forwarded By



(Dr.S.Santhi)

**I B.Sc. – HOME SCIENCE WITH FOOD BIOTECHNOLOGY
SEMESTER –I**

For those who joined in 2023 onwards

PROGRAMME CODE	COURSE CODE	COURSE TITLE	CATEGORY	HRS/WEEK	CREDITS
UAHS	23N1FC	FUNDAME NTALS OF HOME SCIENCE	Lecture	2	2

COURSE DESCRIPTION

This course enlightens the students on the concept scope and role of Home Science in Nation building.

COURSE OBJECTIVES

- Understand the concept, scope and philosophy of Home Science.
- Appreciate the role of Home Science in Nation building
- The developmental tasks of different stages
- Familiarize with the growth process from conception to confinement.
- Know the development of an individual from infancy to old age.

UNITS

UNIT –I BASICS OF HOME SCIENCE (6HRS)

Definition, meaning, areas of specialization and scope of Home Science. -

Philosophy of Home Science. - Development of Home-Science as a discipline. Home Science education at various levels, Scope of Home Science in Higher secondary education ,colleges and universities

UNIT –II Linkages of Home Science (6HRS)

Linkages of Home Science with other disciplines -Psychology, Sociology, Economics, Interior Decoration and agriculture, Catering and Hotel Management, Biotechnology, Microbiology.

UNIT –III Home Science (6HRS)

The Art and Science of Managing Home .Family and Home Science, Ethics in daily life, Family, health and security

UNIT –IV. Carrier Opportunities in Home Science (6HRS)

Nutrition, Dietetics, Food Preservation, Housing and Resource Management. - Textiles and Clothing, Interior Design, Human Development Pre-School Education and Extension.

UNIT –V Home Science and National Development. (6HRS)

Role of Home Science in National Development, Home Science at National and at Global level- action Programs and Organization

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
------------	-------	-----------------	-------------------	---------------

UNIT 1 –BASICS OF HOME SCIENCE (6HRS)				
1.1	Definition, meaning, areas of specialization and scope of Home Science.	2	Chalk & Talk	Black Board
1.2	Philosophy of Home Science. - Development of Home-Science as a discipline	2	Chalk & Talk	LCD
1.3	Home Science education at various levels	1	Lecture	PPT & White board
1.4	Scope of Home Science in Higher secondary education ,colleges and universities	1	Lecture	Smart Board
UNIT -2 LINKAGES OF HOME SCIENCE(6HRS)				
2.1	Introduction	1	Lecture	LCD
2.2	Linkages of Home Science with other disciplines - Psychology, Sociology, Economics,Biotechnology, Microbiology	2	Chalk & Talk	LCD
2.3	Interior Decoration and agriculture, Catering and Hotel Management,	2	Lecture	PPT & White board
2.4	Biotechnology, Microbiology.	1	Discussion	PPT
UNIT -3 Home Science(6HRS)				
3.1	The Art and Science of	2	Lecture	Black board

	Managing Home			
3.2	Home Family and Home Science	2	Lecture	LCD
3.3	Ethics in daily life, Family, health and security	2	Chalk & Talk	LCD
UNIT -4 CARRIER OPPORTUNITIES IN HOME SCIENCE(6HRS)				
4.1	Nutrition, Dietetics, Food Preservation,	2	Lecture	LCD
4.2	Housing. - Textiles and Clothing, Interior Design	2	Chalk & Talk	LCD
4.3	Pre-School Education and Extension	2	Lecture	PPT & White board
UNIT -5 HOME SCIENCE IN NATIONAL DEVELOPMENT(6HRS)				
5.1	Role of Home Science in National Development.	2	Lecture	LCD
5.2	Home Science at National and at Global level	2	Chalk & Talk	LCD
5.3	Action Programs and Organization	2	Lecture	PPT & White board

• CIA	
• Scholastic	• 23
• Non Scholastic	• 2
•	• 25

•

EVALUATION PATTERN

SCHOLASTIC				NON - SCHOLASTIC	MARKS		
C1	C2	C3	C4	C5	CIA	ESE	Total
15		3	5	2	25	75	100

UG CIA Components

				Nos			
C1	-	Test (CIA 1)		1**	-	15	Mks
C2	-	Test (CIA 2)		1**	-	15	Mks
C3	-	Assignment		1	-	3	Mks
C4	-	Quiz		2 *	-	5	Mks
C5	-	Attendance			-	2	Mks

**** Average of C1 and C2 will be taken.**

***The best out of two will be taken into account**

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES	KNOWLEDGE LEVEL (ACCORDING TO REVISED BLOOM'S TAXONOMY)	PSOs ADDRESSED
CO 1	Understand the concept, scope and philosophy of Home Science.	K1	PSO22
CO 2	Appreciate the role of Home Science in Nation building.	K2, K3	PSO22
CO 3	The developmental tasks of different stages.	K1,K2	PSO22

CO 4	.Understand the linkages of Home Science.	K2, K4	PSO22
CO 5	Choose the carrier opportunities in Home Science.	K3, K4	PSO22

Mapping of COs with PSOs

CO/ PSO	PSO 1	PSO 2	PSO 3	PS O4	PSO 5	PSO 6	PSO 7	PSO 8	PSO 9	PS O 10	PSO 11	PSO 12
CO1	1	1	1	1	1	1	1	1	1	1	1	1
CO2	1	1	1	1	1	1	1	1	1	1	1	1
CO3	1	1	1	1	1	1	1	1	1	1	1	1
CO4	1	1	1	1	1	1	1	1	1	1	1	1
CO5	1	1	1	1	1	1	1	1	1	1	1	1
CO/ PSO	PSO 13	PSO 14	PSO 15	PS O1 6	PSO 17	PSO 18	PSO 19	PSO 20	PSO 21	PS O 22	PSO 23	
CO1	1	1	1	1	1	1	1	1	1	3	1	
CO2	1	1	1	1	1	1	1	1	1	3	1	
CO3	1	1	1	1	1	1	1	1	1	3	1	
CO4	1	1	1	1	1	1	1	1	1	3	1	
CO5	1	1	1	1	1	1	1	1	1	3	1	

Mapping of COs with POs

CO/ PSO	PO1	PO2	PO3	PO4
CO1	3	1	1	1
CO2	1	1	1	1
CO3	1	1	1	1
CO4	1	1	1	3
CO5	1	1	1	3

Note: ♦ Strongly Correlated – 3 ♦ Moderately Correlated – 2
♦ Weakly Correlated -1

COURSE DESIGNER:
Dr. C. Priyalatha

Forwarded By



(Dr.S.Santhi)

I B.Sc. Home Science with Food Biotechnology
SEMESTER –II

For those who joined in 2023 onwards

PROGRAMME CODE	COURSE CODE	COURSE TITLE	CATEGORY	HRS/WEEK	CREDITS
UG-UAHS	23N2CC3	FOOD SCIENCE And NUTRITIO N	Lecture	6	5

COURSE DESCRIPTION:

The course emphasizes on the composition of foods and the changes that occur during processing.

COURSE OBJECTIVES:

- Gain knowledge on the nutritive value of different foods and understand the classification of foods.
- Develop skills to prepare acceptable foods with regards to appearance palatability and nutritive value

UNITS

UNIT –I NUTRIENTCONTENT OF FOODS AND COOKING METHODS

(12 HRS.)

Classificationoffoods according to nutrient content.Food groups forbalanced diets. Study of the different cooking methods- dry heat, moistandcombinationmethods, solarcooking,microwavecooking-merits and demerits,dishes prepared by these methods.

UNIT –II CEREALS, MILLETS, PULSES, LEGUMES AND NUTS (12 HRS.)

Classification of Cereals, Structure, nutrient composition, storage, processing, milling,parboiling, scientific methods of preparation and cooking, acceptabilityand palatabilityof rice, wheat, maize and millets Cooking of starches-Dextrinizationandgelatinization,retrogradationandresistant starch.

PulseslegumesTypes,nutritivevalue,methodsofcooking,effectofsoakingandgermination,judicious combination of cerealsand pulses- complementary effect, soya beans, fava beans and kesari dhal-methods toinactivate /remove toxins; storage.

Nuts-types,composition, market forms, roasting, steaming ofnuts,nutsbutters;usesinsweets,baking,and confectionery;Storage.

Oilseeds-types,methodsofprocessing,usesandshelflife

UNIT –III VEGETABLES AND FRUITS

(12 HRS.)

Vegetables:

Classification,nutritivevalue,effectof cookingoncolour, texture,flavour, appearance and nutritive value, Purchase - storage andpreservation

Fruits:

Classification,nutritivevalue,changesduringripening,enzymaticbrowning,uses preservation.

UNIT –IV FLESHFOODS, EGGSANDMILK

(12 HRS.)

Meats – structure, nutritive value, selection of meat, postmortemchanges in meat, ageing, factors affecting tenderness of meat, methodsofcookingand storage.

Poultry-types,nutritivevalueselectionandcooking

Fish-classification,nutritivevalue,selection,storage,cookingandpreservation

Eggs

Structure, nutritive value, methods of cooking, storage, preservation and uses in cookery; foam formation and factors affecting foam formation

Milk and milk products

Nutritive value, kinds of milk, pasteurization, and homogenization, coagulation of milk, fermentation of milk; milk products - whole and skimmed milk, milk powders and yogurt, ghee, butter, cheese. Storage and preservation.

UNIT -V FATS AND OILS, SUGARS, FOOD ADJUNCTS AND BEVERAGES

FATS AND OILS: (12 HRS.)

Types, sources - animal fats and vegetable fats, functions, processing - difference between cold pressed and regular cooking oils, hydrogenated fat, emulsification, rancidity, smoking point. Factors affecting absorption of oils while frying foods, harmful effects of reheated oils.

Sugars:

Types and market forms of sugars; stages of sugar cookery, crystallization, factors affecting crystallization, uses in confectionery.

Food adjuncts and food additives

Spices and condiments: classification, source, use in food preparation, Leavening agents, stabilizers, thickeners, anticaking agents, enzymes, shortenings, stabilizers, flavouring agents, colouring agents, sweeteners - use and abuse.

Food adulteration

Definition, common adulterants in food

Beverages

Classification - fruit based beverages; milk-based beverages nutritive value and uses, alcoholic beverages, coffee, tea and cocoa, malted.

beverages. Sources, manufacture, processing, and service; methods of preparation of coffee and tea.

● REFERENCES:

1. Manay, S. and Shadaksharaswamy, M. (1987) Foods Facts and Principles. New Age International Publishers, New Delhi.
2. Peckham, G.C. and Freeland-Graves, J.H. (1979) Foundations of Food Preparation, 4th edition, Macmillan Publishing Co. Inc., New York.
3. Shewfelt R.L. (2015) Introducing Food Science. CRC Press, Taylor and Francis Group. Boca Raton
4. Srilakshmi B (2019) Food Science, (7th Ed.) New Age International Publishers

5. Thangam E.Philip, Modern Cookery for Teaching and the Trade Volume - 1&2 (6th RevisedEdition),Orient Black
6. Vaclavik,V.A.and Elizabeth,W.C. (2013)Essentialsof FoodScience.2nded. SpringerPublication,NewDelhi

e-Learningresources

- <https://ia801408.us.archive.org/20/items/textbookoffoodsc0000khad/textbookoffoodsc0000khad.pdf>
- <https://egyankosh.ac.in/handle/123456789/32947https://unacademy.com/content/kerala-psc/study-material/basic-food-science/>

OPEN EDUCATIONAL RESOURCES:

<http://www.nin.res.in>

<http://www.cftri.res.in>

<http://www.iifpt.edu.in>

<http://www.afsti.org>

<http://www.icfost.org>

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT -1 NUTRIENTCONTENT OF FOODS AND COOKING METHODS (12 HRS.)				
1.1	Classificationoffoodsacc ordingtonutrient content.Study of the different cooking methods- dry heat, moistandcombinationm ethods,	2	Chalk & Talk	Black Board

	solarcooking,microwave cooking-merits and demerits,dishes prepared by these methods.			
1.2	Food groups forbalanced diets.	2	Chalk & Talk	Black Board
1.3	Methods of cooking – merits and demerits of moist heat methods and dry heat methods	4	Lecture	PPT
1.4	Solar and microwave cooking.	2	Discussion	Videos
1.5	Dishes prepared by these methods	2	Lecture	Videos
UNIT -2 CEREALS, MILLETS, PULSES, LEGUMES AND NUTS (12 HRS.)				
2.1	Classification of Cereals, Structure, nutrient composition, storage, processing, milling,parboiling.	2	Chalk & Talk	Black Board
2.2	Scientific methods of preparation and cooking, acceptabilityand palatabilityof rice, wheat, maize and millets	1	Lecture	PPT
2.3	Cooking of starches- Dextrinizationandgelatinization,retrogradationandresistant starch.	3	Chalk & Talk	Black Board
2.4	Pulsesandlegumes Type s,nutritivevalue,method sofcooking,effectofsoaki	2	Lecture	Smart Board

	ngandgermination,judicious combination of cerealsand pulses-complementary effect, soya beans, fava beans and kesari dhal-methods toinactivate /remove toxins; storage.			
2.5	Nuts -types,composition, market forms, roasting, steaming ofnuts,nutsbutter;uses insweets,baking,and confectionery;Storage.	2	Lecture	Videos
2.6	Oilseeds -types,methodsofprocessing,usesandshelflife	2	Demonstration	Fruits, vegetables, needed apparatus
UNIT -3 MEAT, POULTRY & FISH (12 HRS.)				
3.1	Meat - Composition, nutritive value and its role in cookery	4	Lecture	PPT
3.2	Poultry, Fish - Composition, nutritive value and its role in cookery	4	Lecture	PPT
3.3	Fish - Composition, nutritive value and its role in cookery	4	Lecture	PPT
UNIT -4 EGG, MILK & MILK PRODUCTS (12 HRS.)				
4.1	Eggs - Structure and nutritive value – Role of egg in cookery	5	Chalk & Talk	Black Board
4.2	Milk and milk products: Nutritive value	4	Chalk & Talk	Black Board

4.3	Different types of milk and its products	3	Lecture	PPT
UNIT -5 SPICES, CONDIMENTS, NUTS, OILSEEDS & BEVERAGES (12 HRS.)				
5.1	Spices and condiments – use and abuses	5	Lecture	PPT
5.2	Nuts and oilseeds –their nutritive value and importance of the diet	4	Chalk & Talk	Black Board
5.3	Beverages– Classification and its role in daily diet.	3	Discussion	Videos

• CIA	
• Scholastic	• 23
• Non Scholastic	• 2
•	• 25

EVALUATION PATTERN

SCHOLASTIC				NON - SCHOLASTIC	MARKS		
C1	C2	C3	C4	C5	CIA	ESE	Total
15		3	5	2	25	75	100

UG CIA Components

Nos

C1	-	Test (CIA 1)	1**	-	15 Mks
C2	-	Test (CIA 2)	1**	-	15 Mks
C3	-	Assignment	1	-	3 Mks
C4	-	Quiz	2 *	-	5 Mks
C5	-	Attendance		-	2 Mks

**** Average of C1 and C2 will be taken.**

***The best out of two will be taken into account**

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES
CO 1	Define the basic concept and recent trends in food science and nutrition
CO 2	Classify the cooking methods
CO 3	Describe the composition of food groups
CO 4	Choose the suitable cooking methods for various food groups
CO 5	Identify the role of foods in Indian cookery

Mapping of COs with POs

CO/ PSO	PO1	PO2	PO3	PO4
CO1	3	1	1	1
CO2	1	1	1	1
CO3	1	1	1	1
CO4	1	1	1	3
CO5	1	1	1	3

COURSE DESIGNER:

1. **Dr.C.Helen**

Forwarded By



(Dr.S.Santhi)

I.B.Sc.Home Science with Food Biotechnology
SEMESTER –II

For those who joined in 2023 onwards

PROGRAMME CODE	COURSE CODE	COURSE TITLE	CATEGORY	HRS/WEEK	CREDITS
UG-UAHS	23N2CC4	BASIC COOKERY PRACTICAL	Practical	4	5

COURSE DESCRIPTION

This course provides culinary knowledge and imparts practical skills in food preparations.

COURSE OBJECTIVES

- To learn basic safety and sanitation practices related to food preparation.
- To practice accurate measuring techniques of the ingredients.
- To apply appropriate food preparation techniques in preparing recipes from different food groups.
- To identify and estimate sugars, protein and minerals in food samples.

UNITS

UNIT –I INTRODUCTION TO BASIC COOKING SKILLS (10 HRS.)

Introduction to different cooking methods, cooking terminology; equipment and techniques used for pre-preparation and for different cooking methods.

Methods of measuring and weighing liquids and dry ingredients. The use and care of simple kitchen equipment.

Introduction to food safety, sanitation and hygiene in the kitchen, Safe practices in handling knives, sharp instruments and materials at high temperature.

UNIT –II CEREALS, MILLETS AND PULSES (10 HRS.)

Cereals and Millets: Methods of combining fine and coarse cereal with liquid (eg. Ragiporridge, rava upma)

Methods of cooking cereals and factors influencing texture and nutritive value-cooking rice by boiling and straining, absorption method, steaming, pressure cooking, microwave cooking; Gelatinization and dextrinization

Preparation of recipes using rice-puttu, dosai, idli/idiappam, lemon rice, curd rice, coconut rice, fried rice, tamarind rice, tomato rice, mint pulao- a few

Wheat and Millet preparations-
Kesari, Phulka, poori, paratha, naan, ragi adai, samaicurdrice, thinaiuppuma, - a few

Pulses:

Factors influencing texture, digestibility and nutritive value of whole gram/legumes and pulses-soaking, of soda bicarbonate, addition of salt, water quality- hard and soft water, pressure cooking, boiling and straining.

Pulse preparations- Sundal, sambhar, sprouted green gram patchadi, Vadai, pongal, ompodi, green gram payasam, masala vadai, medhuvadai

UNIT -III VEGETABLES AND FRUITS (10 HRS.)

Vegetables: Basic cuts of vegetables-Slice and mince (onions)
Shred (cabbage, spinach), dice (carrot), chop (tomato), grating (beetroot), and their uses in dishes. Changes in colour and texture of vegetables and nutritive value due to different methods of cooking, cooking medium and addition of acid/alkali.

Vegetable preparations-

Poriyal, Aloo methi curry, vegetable cutlet, thoran, vegetable kurma, avial, keera imaseal, vegetable salad, vegetable soup, vegetable sandwich, kootu, mint chutney and carrothalwa.

Fruits:

Enzymatic browning in fruits and methods to prevent it. Fruit preparations- stewed apple, banana fritters, fruit salad, fruit punch, fruity yoghurt and fruit smoothie, preserve/jam.

UNIT -IV EGGS, MILK AND MILK PRODUCTS, MEAT AND FISH: (5 HRS.)

Egg Cookery:

Boiling of eggs-hard and soft boiled eggs. Best method of boiling eggs. Prevention of Ferrous sulphide formation on the yolk. Poaching and frying. Coagulation of egg protein-stirred and baked custard

Egg preparations - egg curry, omelet, French toast, caramel custard (steamed), scrambled eggs and fried eggs- a few Factors affecting whipping quality of egg white-effect of salt, sugar, vinegar, fat and milk, type of container used and beaters, Stages of foam formation in whipped egg whites and their uses in cookery.

Milk and milk products

Curdling of milk using lime juice, buttermilk, tomato juice,

Milk preparations

Cream of tomato soup, paneer masala, payasam, patchadi, thayir vadai, morkulumbu, basundhi, lassi, spiced buttermilk and baked macaroni and cheese.

Meat and Fish

Methods of tenderizing meat-Pounding, mincing addition of acids like curd / lime juice in marinade, addition of proteolytic enzymes- raw papaya. Effect of different methods of cooking on flavour, texture and appearance of meat and fish.

Meat preparations-

mutton ball curry, mutton vindaloo, mutton keema, liver fry, chicken spring roll, chicken sweet corn soup, chicken biriyani. Sea food preparations- fish fry, fish moilee, fish cutlet, sweet and sour prawns.

UNIT -V SUGAR COOKERY, FATS AND OILS FOOD ADDITIVES AND RAISING AGENTS, SUGAR COOKERY (10 HRS.)

Stages of sugar cookery and uses. Preparation of sweets using different stages of sugar cookery

Fats and oils- Effect of temperature of oil on texture and palatability of foods- Frying poor is at different temperatures

Smoking point of oil- bread cube test.

Emulsions- definition, Preparation of mayonnaise

Food additives and Raising agents

Role of MSG, sodium benzoate and KMS in food preparation and preservation, Natural versus synthetic preservatives, -Advantages and limitations Use of baking soda, baking powder, yeast in baking and food preparation- Prepare one dish with each of these

Uses of herbs and spices to enhance flavour.

REFERENCES:

1. Martland, R.E. and Welsby, D.A. (1980) Basic Cookery, Fundamental Recipes and Variations. William Heinemann Ltd., London.
2. Krishna Arora (2008) Theory of cookery, Frank Brothers & Co.,
3. Negi J (2013) Fundamentals of Culinary Art, S. Chand and Co.
4. Peckham, G.C. and Freeland- Graves, J.H. (1987) Foundation of food preparation. 4th ed. Macmillan Publishing Co, New York
5. Penfield M P and Ada Marie C (2012), Experimental Food Science, Academic Press, San Diego

e-Learning Resources:

- https://www.ihmnotes.in/assets/Docs/Books/Theory_of_Cookery.pdf

- <http://staffnew.uny.ac.id/upload/132318572/pe ndidikan/buku-esp.pdf>

OPEN EDUCATIONAL RESOURCES:

- <http://www.nin.res.in>
- <http://www.cftri.res.in>

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT -1 INTRODUCTIONTOBASICCOOKINGSKILLS (10 HRS.)				
1.1	Introductiontodifferentc ookingmethods. Methods of measuring and weighing liquids and dry ingredients.The useandcareofsimplekitc henequipment.	3	Experimental cooking	Required ingredients and equipment
1.2	Cookingterminology;equ ipment andtechniques used for pre-preparation and for differentcookingmethod s.	3	Experimental cooking	Required ingredients and equipment
1.3	Safepracticesinhandling knives, sharp instruments and materials athightemperature.	4	Experimental cooking	Required ingredients and equipment
UNIT -2 CEREALS, MILLETS AND PULSES(10 HRS.)				
2.1	Cereals and Millets: Methods of combining fine and course cereal withLiquid(eg.Ragiporrid	4	Lecture cum demonstration	Required ingredients and

	<p>ge,ravaupma)</p> <p>Methodofcookingcereals andfactorsinfluencingte xtureandnutritivevalue- cooking ricebyboilingandstrainin g,absorptionmethod,ste aming, pressurecooking,microw ave cooking;Gelatinizationa nddextrinization</p> <p>Preparationofrecipesusi ngrice- puttu,dosai,idli/idiappa m,lemonrice,curd rice, coconut rice, fried rice, tamarind rice, tomato rice, mintpulao- afew</p> <p>WheatandMilletpreparat ions- Kesari,Phulka,poori,par atha,naan,ragiada,sam aicurdrice,thinaiuppum a</p>			equipment
2.2	<p>Pulses:</p> <p>Factors influencing texture, digestibility and nutritive value of wholegram/legumesand pulses- soaking,additionofsodab icarbonate,additionof salt, water quality- hard and softwater, pressure cooking, boiling andstraining.</p>	3	Lecture cum demonstration	Required ingredients and equipment
2.3	Pulse preparations- Sundal, sambhar, sprouted green gram	3	Lecture cum demonstration	Required ingredients and

	patchadi,Vadai, pongal, ompodi, green gram payasam, masala vadai ,medhuvadai-a few			equipment
UNIT -3 VEGETABLES AND FRUITS(10 HRS.)				
3.1	Vegetables: Basic cuts of vegetables-Slice and mince (onions) Shred(cabbage,spinach), dice(carrot),chop(tomato), grating(beetroot),andthe ir uses in dishes. Changes in colour and texture of vegetables andnutritive value due to different methodsof cooking, cookingmediumandaddi tionofacid/alkali.	4	Lecture cum demonstration	Required ingredients and equipment
3.2	Vegetablepreparations– Poriyal,Aloomethicurry,v egetablecutlet,thoran,ve getablekurma,avial,keer aimaseal,vegetablesalad ,vegetablesoup,vegetable sandwich,kootu,mintch utneyand carrothalwa.	3	Lecture cum demonstration	Required ingredients and equipment
3.3	Fruits: Enzymaticbrowninginfr uitsandmethodstopreve nt it.Fruitpreparations- stewedapple,bananafritt ers,fruitsalad,fruitpunc h,fruityoghurtandfruit smoothie,preserve/jam.	3	Lecture cum demonstration	Required ingredients and equipment

UNIT -4 EGGS, MILK AND MILK PRODUCTS, MEAT AND FISH (5 HRS.)

4.1	<p>EggCookery:</p> <p>Boilingofeggs- hardandsoftboiledeggs. Bestmethodofboilingegg s.Prevention of Ferrous sulphide formation on the yolk. Poaching andfrying.Coagulation of eggprotein-stirred and bakedcustard</p> <p>Egg preparations - egg curry, omelet, French toast, caramel custard(steamed),scram bled eggs and fried eggs- a few Factors affectingwhippingquality ofeggwhite- effectofsalt,sugar,vinega r,fatandmilk,typeofconta inerusedand beaters,Stagesoffoamfor mation inwhippedeggwhitesand theirusesincookery.</p> <p>Milkandmilkproducts</p> <p>Curdlingofmilkusinglim ejuce,buttermilk,tomat ojuce,</p> <p>Milkpreparations</p> <p>Creamof tomatosoup,paneermas ala,payasam, patchadi,thayir vadai, morkulumbu,basundhi, lassi,spicedbuttermilka ndbakedmacaroniandch eese.</p>	3	Lecture cum demonstration	Required ingredients and equipment
-----	---	---	------------------------------	---

	Meat and Fish Methods of tenderizing meat-Pounding, mincing addition of acids like curd / lime juice in marinade, addition of proteolytic enzymes-raw papaya Effect of different methods of cooking on flavour, texture and appearance of meat and fish.			
4.2	Meat preparations- mutton ball curry, mutton vindaloo, mutton keema, liver fry, chicken spring roll, chicken sweet corn soup, chicken biriyani. Sea food preparations- fish fry, fish moilee, fish cutlet, sweet and sour prawns.	2	Lecture cum demonstration	Required ingredients and equipment
UNIT -5 SUGAR COOKERY, FATS AND OILS FOOD ADDITIVES AND RAISING AGENTS, SUGAR COOKERY (10 HRS.)				
5.1	Stages of sugar cookery and uses. Preparation of sweets using different stages of sugar cookery Fats and oils- Effect of temperature of oil on texture and palatability of foods- Frying poor is at different temperatures Smoking point of oil- bread cube test. Emulsions- definition, Preparation of mayonnaise	5	Lecture cum demonstration	Required ingredients and equipment

	Food additives and Preservatives			
5.2	<p>Role of MSG, sodium benzoate and KMS in food preparation and preservation. Natural versus synthetic preservatives, - Advantages and limitations Use of baking soda, baking powder, yeast in baking and food preparation - Prepare one dish with each of these</p> <p>Uses of herbs and spices to enhance flavour.</p>	5	Lecture cum demonstration	Required ingredients and equipment

• CIA	
• Scholastic	• 23
• Non Scholastic	• 2
•	• 25

EVALUATION PATTERN

SCHOLASTIC				NON – SCHOLASTIC	MARKS		
C1	C2	C3	C4	C5	CIA	ESE	Total
15		3	5	2	25	75	100

UG CIA Components

Nos			
C1	-	Test (CIA 1)	1** - 15 Mks
C2	-	Test (CIA 2)	1** - 15 Mks
C3	-	Assignment	1 - 3 Mks
C4	-	Quiz	2 * - 5 Mks
C5	-	Attendance	- 2 Mks

**** Average of C1 and C2 will be taken.**

***The best out of two will be taken into account**

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES
CO 1	Recall the principles of various cooking methods.
CO 2	Classify edible and non-edible portions of food stuffs
CO 3	Plan the preparation of recipes based on different food groups
CO 4	Distinguish the factors affecting the food components during cooking process
CO5	Define the preparation of meat.

Mapping of COs with PSOs

CO/PSO	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO1	3	2	2	3	2	2
CO2	3	3	2	3	2	2
CO3	3	3	3	3	2	2
CO4	3	3	2	3	2	2
CO5	3	3	2	3	2	2
Weightage of course contributed to each PSO	15	14	11	15	10	10

COURSE DESIGNER:

Staff in Charge:Dr.C.Helen
Forwarded By



(Dr.S.Santhi)

**I B.Sc. HOME SCIENCE WITH FOOD BIO
TECHNOLOGY**

SEMESTER –II

For those who joined in 2023 onwards

PROGRAMME CODE	COURSE CODE	COURSE TITLE	CATEGOR Y	HRS/WEEK	CREDIT S
UG-UAHS	23N2GE3	NUTRITION FOR HEALTH AND PHYSICAL FITNESS	Lecture	3	3

COURSE DESCRIPTION

This course helps to understand the basic concepts on health, Fitness.

COURSE OBJECTIVES

- Understand the components of health, Fitness and benefits of Fitness

- To gain knowledge on Fitness and yoga methods

UNITS

UNIT –I NUTRITION AND HEALTH

(15 HRS}

Health and Fitness Definition, Components and Relationship among Physical Fitness, Wellness and Health Personalized approach ,Benefits of fitness training.

UNIT –II Exercise Physiology and Nutrition for Physical Activity(15 HRS}

Pulmonary ,Cardiovascular Regulation and integration, Skeletal and neural control,Endocrines and exercise Nutrition & Physical performance Physical fitness: cardio respiratory fitness, muscular strength, muscularendurance, bodycomposition and flexibility

UNIT III Physical Activity Training (10 HRS)

Aerobic and anaerobic training -To enhance Cardio Vascular Endurance, Flexibility and Body Composition,Measurement of PALBenefits of Fitness training and Gadgets for measuring PA – MotorizedTreadmill, (aerobic Fitness), Functional Trainer,Fluid Rower (Upper body), Elliptical Bicycle andBicycle Ergometer (Lower body),.

UNIT –IV Diseases due to Faulty/Poor Food Habits and Physical Inactivity (10 HRS)

Life Style related diseases/disorders (Non communicable Disease Conditions)Meaning CausativeFactors and Diet Modification/evidence based guidelines forUnderweight, Obesity,Diabetes mellitus,Hypertension, Cancer Cardiovascular Disease, Anaemia

UNIT –V Exercise, Stress and Health Management (10HRS)

Stress Assessment and Management

Techniques-Exercise at medium and high altitudes, Underweight, Overweight and Obesity, Relaxation

Techniques,Yoga and Meditation for Health, Clinical Exercise

TEXT BOOKS

1Srilakshmi.B.(2010). *Food Science*, New age International Pvt.Ltd., New Delhi.

2. Swaminathan. M (2010), *Handbook of Food and Nutrition*, The Bangalore Press, Bangalore.

REFERENCE BOOKS:

3Benion Marion (1980). *Introductory foods*, Macmillan, New York,

4Gitanjali Chatterjee, ,(1999) *Handbook of Nutrition*, Rajat Publications.

5.Anjana Agarwal, Shobha A Udipi (2014) *Text book of Human Nutrition*, Jaypee Brothers Medical Publishers.

OPEN EDUCATIONAL REFERENCES:

- [.http://www.hanoverhornets.org/pe/wp-content/uploads/2017/01/nutritionnotes-2.pdf](http://www.hanoverhornets.org/pe/wp-content/uploads/2017/01/nutritionnotes-2.pdf)
- [.https://school.eckovation.com/short-notes-nutrition/](https://school.eckovation.com/short-notes-nutrition/)
- [.https://ncert.nic.in/textbook/pdf/iehp104.pdf](https://ncert.nic.in/textbook/pdf/iehp104.pdf)

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT -1 NUTRITION AND HEALTH (15 HRS.)				
1.1	Definition – Health, and fitness	2	Chalk & Talk	Black Board
1.2	Components and Relationship among Physical Fitness, Wellness and Health	5	Lecture	PPT
1.3	Definition of Fitness, Components of Fitness	5	Lecture	PPT
1.4	Personalized approach Benefits of fitness training	3	Lecture	Videos
UNIT -2 Exercise Physiology and Nutrition for Physical Activity (15 HRS.)				
2.1	Pulmonary ,Cardiovascular Regulation and integration, Skeletal and neural	5	Chalk & Talk	Black Board

	control,Endocrines and exercise Nutrition &&			
2.2	Skeletal and neural control,Endocrines and exercise Nutrition &&	5	Lecture	PPT
2.3	Physical performancePhysical fitness: cardio respiratory fitness, muscular strength, muscular endurance, bodycomposition and flexibility	5	Lecture	PPT
UNIT -3 Physical Activity Training (10 HRS.)				
3.1	Aerobic and anaerobic training -To enhance Cardio Vascular Endurance,	3	Lecture	PPT
3.2	Flexibility and Body Composition,Measurement of PAL,Benefits of Fitness training and Gadgets for measuring PA	3	Lecture	PPT
3.3	MotorizedTreadmill, (aerobic Fitness), Functional Trainer,Fluid Rower (Upper body), Elliptical Bicycle andBicycle Ergometer (Lower body),	4	Lecture	PPT
UNIT -4 Diseases due to Faulty/Poor Food Habits and Physical				

Inactivity (10 HRS}				
4.1	Life Style related diseases/disorders (Non communicable Disease Conditions)Meaning CausativeFactors and Diet Modification,	2	Chalk & Talk	Black Board
4.2	Evidence based guidelines forUnderweight, Obesity	3	Lecture	PPT
4.3	Diabetes mellitus,Hypertension, CancerCardiovascular Disease, Anaemia	5	Chalk & Talk	Black Board
UNIT -5 Exercise, Stress and Health Management (10HRS)				
5.1	Stress Assessment and Management Techniques-, Overweight and Obesity, Relaxation	2	Chalk & Talk	Black Board
5.2	Exercise at medium and high altitudes, Underweight	4	Lecture	PPT
5.3	Techniques,Yoga and Meditation for Health, Clinical Exercise	4	Demonstration	PPT

- CIA

• Scholastic	• 23
• Non Scholastic	• 2
•	• 25

EVALUATION PATTERN

SCHOLASTIC				NON - SCHOLASTIC	MARKS		
C1	C2	C3	C4	C5	CIA	ESE	Total
15		3	5	2	25	75	100

UG CIA Components

				Nos			
C1	-	Test (CIA 1)		1**	-	15 Mks	
C2	-	Test (CIA 2)		1**	-	15 Mks	
C3	-	Assignment		1	-	3 Mks	
C4	-	Quiz		2 *	-	5 Mks	
C5	-	Attendance			-	2 Mks	

**** Average of C1 and C2 will be taken**

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

CO4	1	1	1	1	1	1	1	1	1	1	1	
CO5	1	1	1	1	1	1	1	1	1	1	1	

Mapping of COs with POs

CO/ PSO	PO1	PO2	PO3	PO4
CO1	2	2	2	2
CO2	2	2	2	2
CO3	2	2	2	2
CO4	2	2	2	2
CO5	1	1	1	1

Note: ♦ Strongly Correlated – 3

♦ Moderately Correlated –

2

COURSE DESIGNER:

Staff Name: Dr.C.Priyalatha



Forwarded By

(Dr.S.Santhi)

I B.Sc. HOME SCIENCE WITH FOOD BIO TECHNOLOGY SEMESTER –I

For those who joined in 2023 onwards

PROGRAMME CODE	COURSE CODE	COURSE TITLE	CATEGORY	HRS/WEEK	CREDIT S
-------------------	----------------	-----------------	----------	----------	-------------

UG-UAHS	23N2SE2	Women's Health & Wellness	Lecture	2	2
----------------	----------------	--------------------------------------	----------------	----------	----------

COURSE DESCRIPTION

This course helps to understand the basic concepts on health, nutrition and deficiency diseases of various nutrients

COURSE OBJECTIVES

To understand the diverse factors that has a bearing on women's health.

To Highlight different aspects of health that contributes to a good lifestyle for women across the globe.

UNITS

UNIT –I NUTRITION AND HEALTH (15 HRS.)

Nutrition for Women - Dietary Guidelines for a healthy lifestyle, Current concepts pertaining to BalancedDiets, Nutrient requirements for young and older women with special focus on Protein, Iron, Vitamin D and Calcium, Factors affecting nutrient intake in women- Socioeconomic, Environmental conditions, Health conditions; Consequences of Eating disorders in young women.

UNIT –II PHYSICAL HEALTH (15 HRS.)

Physical Health - Significance of Body weight and Body composition parameters, Benefits of Aerobic, Flexibility and Strength training exercises- on General health, Bone health, and risksassociated with NCD's.

UNIT –III REPRODUCTIVE HEALTH (10 HRS.)

Reproductive Health - Menstrual Health, Pregnancy and Lactation, Pre- and Post-Menopausal concerns- preventive measures, sexually transmitted diseases- an overview.

UNIT –IV MENTAL HEALTH (10 HRS.)

Mental Health - Common mental health problems - Trends and issues relating to women, Depression, Anxiety and coping with Stress, Strategies to improve mental health- learning new skills and hobbies, Relaxation techniques such as yoga and meditation..

UNIT –V SOCIAL HEALTH (10 HRS.)

Social Health - Balancing home and career, strengthening relationships, enhancing communication skills and Personality

Development, technological advancements and its impact, Dealing with domestic violence, and harassment issues.

REFERENCES:

TEXT BOOKS

1Srilakshmi.B.(2010). *Food Science*, New age International Pvt.Ltd., New Delhi.

2. Swaminathan. M (2010), *Handbook of Food and Nutrition*, The Bangalore Press, Bangalore.

REFERENCE BOOKS:

3Lanza di Scalea T, Matthews KA, Avis NE, et al. (2012) Role stress, role reward, and

4mental health in a multiethnic sample of midlife women: results from the Study of

5Women's Health Across the Nation (SWAN). *J Women's Health*; 21(5):481-489.

• **Mahan K and Sylvia E. Stump (2000) Krause's Food Nutrition and Diet Therapy,**

7Saunders, USA.. Minkin M. J. and Wright C. V. (2003) *The Yale Guide to Women's Reproductive*

8Health from menarche to menopause. Yale University Press, London

9.Sizer F. S. and Whitney E. (2014) *Nutrition: Concepts & Controversies*. 13 th Ed.,

10. Wadsworth, Cengage Learning, USA.. Sperry L. (2016) *Mental Health and Mental Disorders*. ABC-Clio, Californi

Williams M.H., Anderson D.E., Rawson E.S. (2013) *Nutrition for Health, Fitness and*

Sport. McGraw Hill, New York.. Wrzus C, Hänel M, Wagner J, Neyer FJ. (2013) Social network changes and life events across the life span: a meta-analysis. *Psychol Bull*;139(1):53-80..

OPEN EDUCATIONAL REFERENCES:

https://www.nhp.gov.in/social-health_pg

<https://ncert.nic.in/textbook/pdf/jehp112.pdf>

<https://ncert.nic.in/textbook/pdf/iehp113.pdf>

<https://ncert.nic.in/textbook/pdf/lebo104.pdf>

<https://www.nih.gov/health-information/social-wellness-toolkit>

<https://www.cdc.gov/reproductivehealth/womensrh/index.htm>

<https://www.nimh.nih.gov/health/topics/caring-for-your-mental-health>

[https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-](https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response)

response

□ <https://www.cdc.gov/mentalhealth/learn/index.htm>

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT -1 NUTRITION AND HEALTH (15 HRS.)				
1.1	Definition – Health, Nutrition, Malnutrition, Adequate Nutrition	3	Chalk & Talk	Black Board
1.2	Balanced Diet, Nutritional status	4	Lecture	PPT
1.3	Definition of Fitness, Components of Fitness	4	Lecture	PPT
1.4	Types of physical activity and their energy consumption level	4	Lecture	Videos
UNIT -2 PHYSICAL HEALTH (15 HRS.)				
2.1	Physical Health - Significance of Body weight and Body composition Parameters.	5	Chalk & Talk	Black Board
2.2	Benefits of Aerobic, Flexibility and Strength training exercises- on General	5	Lecture	PPT
2.3	Bone health, and risks associated with NCD's	5	Lecture	PPT
UNIT -3 REPRODUCTIVE HEALTH HEALTH(10 HRS.)				
3.1	Reproductive Health - Menstrual Health, Pregnancy and Lactation,	4	Lecture	PPT

3.2	Pre- and Post-Menopausal concerns-preventive measures	4	Lecture	PPT
3.3	Sexually transmitted diseases-an overview	2	Lecture	PPT
UNIT -4 MENTAL HEALTH (12 HRS.)				
4.1	Mental Health - Common mental health problems - ,	2	Chalk & Talk	Black Board
4.2	Trends and issues relating to women, Depression, Anxiety and coping with Stress,	2	Lecture	PPT
4.3	Strategies to improve mental health- learning new skills and hobbies, Relaxation techniques such as yoga and meditation	2	Chalk & Talk	Black Board
UNIT -5 SOCIAL HEALTH (10 HRS.)				
5.1	Social Health - Balancing home and career, strengthening relationships,.	4	Chalk & Talk	Black Board
5.2	Enhancing communication skills and Personality	3	Lecture	PPT
5.3	Development, technological advancements and its	3	Demonstration	PPT

	impact, Dealing with domestic violence, and harassment issues			
--	---	--	--	--

• CIA	
• Scholastic	• 23
• Non Scholastic	• 2
•	• 25

EVALUATION PATTERN

SCHOLASTIC				NON - SCHOLASTIC	MARKS		
C1	C2	C3	C4	C5	CIA	ESE	Total
15		3	5	2	25	75	100

UG CIA Components

				Nos	
C1	-	Test (CIA 1)	1**	-	15 Mks
C2	-	Test (CIA 2)	1**	-	15 Mks
C3	-	Assignment	1	-	3 Mks
C4	-	Quiz	2 *	-	5 Mks
C5	-	Attendance		-	2 Mks

**** Average of C1 and C2 will be taken.**

CO4	1	1	3	1	1	1	1	1	1	1	1	1
CO5	1	1	3	1	1	1	1	1	1	1	1	1
CO/ PSO	PSO1 3	PS O1 4	PSO 15	PSO 16	PS O1 7	PSO 18	PS O1 9	PS O2 0	PS O2 1	PS O 22	PS O2 3	
CO1	1	1	1	1	1	1	1	1	1	1	1	
CO2	1	1	1	1	1	1	1	1	1	1	1	
CO3	1	1	1	1	1	1	1	1	1	1	1	
CO4	1	1	1	1	1	1	1	1	1	1	1	
CO5	1	1	1	1	1	1	1	1	1	1	1	

Mapping of COs with POs

CO/ PSO	PO1	PO2	PO3	PO4
CO1	2	2	2	2
CO2	2	2	2	2
CO3	2	2	2	2
CO4	2	2	2	2
CO5	1	1	1	1

Note: ♦ Strongly Correlated – **3**
2 ♦ Weakly Correlated – **1**

♦ Moderately Correlated –

COURSE DESIGNER

Staff Name: Dr.C.Priyalatha

Forwarded By



(Dr.S.Santhi)

**I B.Sc. HOME SCIENCE WITH FOOD
BIOTECHNOLOGY**

SEMESTER –II

For those who joined in 2023 onwards

PROGRAMME CODE	COURSE CODE	COURSE TITLE	CATEGORY	HRS/WEEK	CREDITS
UAHS	23N2GE4	Nutrition and Wellness Practical	Practical	2	2

COURSE DESCRIPTION

To integrate and apply the principles of sound nutrition to help, assess and evaluate physical fitness, body composition and dietary pattern and their interrelationship.

COURSE OBJECTIVES

- Understand the components of health and fitness and the importance of nutrition in maintaining health
- Make nutritional, dietary, and physical activity recommendations to achieve fitness and well-being.
- Develop ability to evaluate fitness and well-being.

UNITS

**UNIT –I HOLISTIC APPROACH TO FITNESS AND HEALTH
(5 HRS.)**

Effect of specific Nutrients on work Performance and physical fitness

UNIT –II EXERCISE FOR WEIGHT CONTROL (5 HRS.)

Exercise prescription in obesity and weight control –Prevention of weight cycling

UNIT-III EXERCISE FOR HEART

Exercise prescription in Hypertension and coronary Heart disease
(5 HRS.)

UNIT –IV EXERCISE FOR BONE HEALTH (5 HRS.)

Exercise prescription in osteoporosis

UNIT –V EXERCISE FOR FITNESS (5 HRS.)

Exercise prescription for pre and post-natal fitness

REFERENCES:

TEXTBOOK:

- Gupta L. C. &. Kusium Gupta (1989). *Foods and Nutrition, Facts and Figures*, Jayapahothas, New Delhi,

REFERENCE BOOKS:

- Swaminathan M. (1988) *Advanced textbook of Food and Nutrition*, Vol. I and II, the Bangalore Printing and Publishing Co., Ltd.
- Gitanjali Chatterjee, ,(1999) *Handbook of Nutrition*, Rajat Publications.

1. Srilakshmi.B.(2007). *Food Science*, New age International Pvt.Ltd.,NewDelhi.

OPEN EDUCATIONAL RESOURCES:

- [.http://www.hanoverhornets.org/pe/wp-content/uploads/2017/01/nutritionnotes-2.pdf](http://www.hanoverhornets.org/pe/wp-content/uploads/2017/01/nutritionnotes-2.pdf)
- [.https://school.eckovation.com/short-notes-nutrition/](https://school.eckovation.com/short-notes-nutrition/)
- [.https://ncert.nic.in/textbook/pdf/iehp104.pdf](https://ncert.nic.in/textbook/pdf/iehp104.pdf)

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT -1 HOLISTIC APPROACH TO FITNESS AND HEALTH				
1.1	Introduction to fitness and health	2	Demonstration	. Essential materials
1.2	Effect of specific Nutrients on work Performance and physical fitness	3	Demonstration	Essential materials
UNIT -2				
2.1	Exercise prescription in obesity and weight control –	2	Demonstration	Essential materials
2.2	Prevention of weight cycling	3	Demonstration	Essential materials
UNIT -3				
3.1	Exerciseprescription in Hypertension	2	Demonstration	Essential materials
3.2	coronary Heart disease	3	Demonstration	Essential materials
UNIT - 4				
	Exerciseprescription in			Essential

4.1	osteoporosis	2	Demonstration	materials
4.2	Exercise prescription in osteoporosis	2	Demonstration	Essential materials
UNIT-5				
5.1	Yoga	3	Demonstration	Essential materials
5.2	Meditation	4	Demonstration	Essential materials

	C1	C2	C3	C4	C5	Total Scholastic Marks	Non Scholastic Marks C6	CIA Total
Levels	T1 10 Mks.	T2 10 Mks.	Quiz 5 Mks.	Assignment 5 Mks	OBT/PPT 5 Mks	35 Mks.	5 Mks.	40Mks.
K1	2	2	-	-	-	4	-	4
K2	2	2	5	-	-	9	-	9
K3	3	3	-	-	5	11	-	11
K4	3	3	-	5	-	11	-	11
Non Scholastic	-	-	-	-	-		5	5
Total	10	10	5	5	5	35	5	40

CIA	
Scholastic	35
Non Scholastic	5
	40

✓ All the course outcomes are to be assessed in the various CIA components.

✓ The levels of CIA Assessment based on Revised Bloom's Taxonomy for UG are :

K1- Remember, **K2-**Understand, **K3-**Apply, **K4-**Analyse

EVALUATION PATTERN

SCHOLASTIC				NON - SCHOLASTIC	MARKS		
C1	C2	C3	C4	C5	CIA	ESE	Total
10	10	5	5	5	40	60	100

C1 – Average of Two Session Wise Tests

C2 – Average of Two Monthly Tests

C3 - Mid Sem Test

C4 – Best of Two Weekly Tests

C5 – Non – Scholastic

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES	KNOWLEDGE LEVEL (ACCORDING TO REVISED BLOOM'S TAXONOMY)	PSOs ADDRESSED
CO 1	Recall the relationship of food and health.	K1	PSO3
CO 2	Describe terminologies related to fitness.	K1, K2,	PSO3 & PSO4
CO 3	Identify the different macro and micro nutrients.	K1, K3	PSO3 & PSO4
CO 4	Plan the balanced diet for different age groups.	K1, K2, K3 & K4	PSO3 & PSO4
CO 5	Examine the holistic approach to fitness and health.	K2 ,K4	PSO3 & PSO4

Mapping of COs with PSOs

CO/ PSO	PS O1	PS O2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PSO 8	PSO 9	PSO 10	PSO 11	PSO 12
CO1	1	1	3	3	1	1	1	1	1	1	1	1

CO2	1	1	3	3	1	1	1	1	1	1	1	1
CO3	1	1	3	3	1	1	1	1	1	1	1	1
CO4	1	1	3	3	1	1	1	1	1	1	1	1
CO5	1	1	3	3	1	1	1	1	1	1	1	1
CO/ PSO	PS O1 3	PS O1 4	PSO 15	PSO 16	PSO 17	PSO 18	PSO 19	PSO 20	PSO 21	PSO 22	PSO 23	
CO1	1	1	1	1	1	1	1	1	3	1	1	
CO2	1	1	1	1	1	1	1	1	1	1	1	
CO3	1	1	1	1	1	1	1	1	1	1	1	
CO4	1	1	1	1	1	1	1	1	1	1	1	
CO5	1	1	1	1	1	1	1	1	1	1	1	

Mapping of COs with POs

CO/ PO	PO1	PO2	PO3	PO4
CO1	3	1	2	2

CO2	3	1	2	2
CO3	3	1	2	2
CO4	3	1	2	2
CO5	3	1	2	2

Note: ♦ Strongly Correlated – **3** ♦ Moderately Correlated – **2** ♦ Weakly Correlated – **1**

COURSE DESIGNER

Mrs.D.Mouna

Forwarded By



(Dr.S.Santhi)

I B.Sc. HOME SCIENCE WITH FOOD BIOTECHNOLOGY
SEMESTER –II

For those who joined in 2023 onwards

PROGRA MME CODE	COURSE CODE	COURSE TITLE	CATEGORY	HRS/ WEEK	CREDITS
UAHS	23N2SE3	GARMENT EMBELLISHMENT TECHNIQUES	Lecture	2	2

COURSE DESCRIPTION

This skill-based paper aims at imparting hand embroidery and fabric painting techniques.

COURSE OBJECTIVES

- To develop skill in making hand embroidery stitches.
- To encourage students to apply embroidery on tablecloth, handkerchief, tops and blouse.
- To inculcate fabric painting technique in students and make them use this skill on clothing and household linen.

UNITS

UNIT –I Development of Design

(6 HRS.) Development of design from a basic motif applying the elements and principles of design.

UNIT –II Types of Stitches

(6 HRS.)

Embroidery – Basic hand stitches like chain, satin, long and short, feather,

back.

Self-Study: Lazy daisy, French knot, bullion knot, Herring bone, Buttonhole.

UNIT –III Application of Stitches

(6 HRS.)

Application of embroidery stitches on table cloth, handkerchief, tops and blouse.

UNIT –IV Painting

(6 HRS.)

Fabric painting study of paints & brush available, different methods of painting.

UNIT –V Painting Techniques

(6 HRS.)

Application of fabric painting technique on place mats, pillow cover, saree and kameez.

REFERENCES:

- 1.Creative Craft in Fabric and Yarn . (1979). Gallery Press, London.
- 2.Gladys Cunnigharn. (1969). Singer Sewing Book. Golden press, New York.
- 3.Julia Barton. (1989). The Art of Embroidery. Merchurst Ltd., London.
- 4.Pamela Cabburn. (1976). The Needle Work's Dictionary. William and Morrow and Company, Inc. New York.
- 5.Reader's Digest. (1955). Complete Guide to Needlework.
- 6.Simon and Schuster. (1960). McCall's Treasury of Needle craft. Schuster Publishing, New York.
- 7.The ultimate Design Source Book for Crafters. (2007). Search Press Ltd, Kent, Australia.

COURSE CONTENTS & LECTURE SCHEDULE:

Module No.	Topic	No. of Lectures	Teaching Pedagogy	Teaching Aids
UNIT - 1				
1.1	Development of design	3	Chalk & Talk	Black Board
1.2	Application of elements and principles of design	3	Lecture	LCD
UNIT - 2				
2.1	Basic hand stitches	3	Lecture	PPT
2.2	Chain, Back, Satin, Long & short, Feather	3	Lecture	PPT
UNIT - 3				
3.1	Application of embroidery stitches on table cloth, hand kerchief	3	Specimen	PPT
3.2	Application of stitches on tops and blouse	3	Specimen	PPT
UNIT - 4				
4.1	Study of paints and brush	3	Lecture	White Board
4.2	Different methods of painting	3	Lecture	PPT
UNIT - 5				
5.1	Fabric painting on placemats and pillow cover	3	Specimen	PPT
5.2	Fabric painting on saree and	3	Specimen	PPT

	kameez			
--	--------	--	--	--

Levels	C1	C2	C3	C4	C5	Total Scholastic Marks	Non Scholastic Marks C6	CIA Total	% of Assessment
	T1	T2	Quiz	Assignment	OBT/PT				
	10 Mks.	10 Mks.	5 Mks.	5 Mks	5 Mks	35 Mks.	5 Mks.	40Mks.	
K1	2	2	-	-	-	4	-	4	10 %
K2	2	2	5	-	-	9	-	9	22.5 %
K3	3	3	-	-	5	11	-	11	27.5 %
K4	3	3	-	5	-	11	-	11	27.5 %
Non Scholastic	-	-	-	-	-		5	5	12.5 %
Total	10	10	5	5	5	35	5	40	100 %

CIA	
Scholastic	35
Non Scholastic	5
	40

✓ All the course outcomes are to be assessed in the various CIA components.

✓ The levels of CIA Assessment based on Revised Bloom's Taxonomy for UG are:

K1- Remember, **K2**-Understand, **K3**-Apply, **K4**-Analyse

EVALUATION PATTERN

SCHOLASTIC					NON - SCHOLASTIC	MARKS	
C1	C2	C3	C4	C5	C6	CIA	ESE
10	10	5	5	5	5	40	60

C1 – Internal Test-1

C2 – Internal Test-2

C3 - Quiz

C4 – Assignment

C5 - OBT/PPT

C6 – Non - Scholastic

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

NO.	COURSE OUTCOMES	KNOWLEDGE LEVEL (ACCORDING TO REVISED BLOOM'S	PSOs ADDRESSED
-----	-----------------	---	----------------

1												
CO 2	1	1	1	1	1	1	1	1	1	1	1	
CO 3	1	1	1	1	3	1	1	1	1	1	1	
CO 4	1	1	1	1	1	1	1	1	1	1	1	
CO 5	1	1	1	1	3	1	1	1	1	1	1	

Mapping of COs with POs

CO/ PSO	PO1	PO2	PO3	PO4
CO1	1	1	2	1
CO2	1	1	2	1
CO3	1	1	2	1
CO4	1	1	2	1
CO5	1	1	2	1

Note: ♦ Strongly Correlated – **3** ♦ Moderately Correlated – **2**
 ♦ Weakly Correlated -**1**

COURSE DESIGNER:

1. **MS.NANDHINI PRIYA**

Forwarded By



(Dr.S.Santhi)