MAHATMA GANDHI UNIVERSITY

PRIYADARSHINI HILLS,

KOTTAYAM - 686 560

CURRICULUM FOR BACHELOR'S PROGRAMME

IN

FAMILY AND COMMUNITY SCIENCE

(HOME SCIENCE)

Under Choice Based Credit System (CBCS)
(2016 Admissions Onwards)

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Since the nomenclature of Home Science at the National level is Family and Community Science for the last 15 years it was recommended to change the nomenclature of Home Science as Family and Community Science from 1998 onwards and was accepted (Refer Restructured Curriculum and syllabi for Under Graduate Courses in Family and Community Science (Home Science) – 1998).

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PREFACE

As per orderNo742/AcA1X/Workshop.syl Revision/2016 dated 06/02/2016 of the Mahatma Gandhi University, the members of Board for UG in Home Science was entrusted with the task of restructuring and updating the syllabi for Home Science

The Members of the Board of Studies in Home Science:

1. Dr. Miriam Mani – Associate Professor, CMS College, Kottayam - Chair Person.

   Ph. No. 9048546392 .email –miriammani@yahoo.co.in

2, Dr. Sr. Betsy – Associate Professor, BCM College, Kottayam

2. Ms. Manjuline Jacob-Associate Professor, Assumption College, Changanacherry.

4. Dr, Betty Rani Isaac. Associate Professor, St. Teresas College, Ernakulam.

5. Dr. Anooja Thomas-Associate Professor, CMS College, Kottayam

6. Dr. Lizmitha Godwin–Assistant Professor, Morning Star Home Science College, Angamaly

As instructed by the University a workshop was conducted including the members of Board of Studies, teachers handling the under graduate course and subject experts. The participants of workshop are :

1. Dr. Miriam Mani-Associate Professor, CMS College, Kottayam

2, Dr. Sister Betsy – Associate Professor, BCM College, Kottayam

2. Ms. Manjuline Jacob-Associate Professor, Assumption College, Changanacherry.

4.. Dr. Anooja Thomas-Associate Professor, CMS College, Kottayam

5. Ms.Anne Mary Joseph, Associate Professor, Assumption College, Changanacherry

6.. Dr. Lizmitha Godwin–Assistant Professor, Morning Star Home Science College, Angamaly

Subject Experts

1. Dr. K V Indulekha, Former Principal, Assan Memorial College of Arts and Science, Chennai.

2. Dr. Annie Ninan, Assistant Professor, KAHM Unity Women's College, Manjeri

Faculty who have contributed toward the curriculum and syllabus in Family and Community Science in addition to members of Board of studies:

1. Ms. Susan Cherian, Associate Professor, St. Tersas College, Ernakulam
2. Ms. Rose Mary Francis. Associate Professor, St. Teresa College, Ernakulam.
3. Ms. Anne Mary Joseph-Associate Professor, Assumption College, Changanacherry

4. Ms. Nisha Vikraman, Assistant Professor, St. Tersas College, Ernakulam
5. Ms. Megha Thampy ,Assistant Professor**,** Morning Star Home Science College, Angamaly
6. Dr. Sister Shemi George**,** Morning Star Home Science College, Angamaly
7. Ms. Rajani Devi, T.R.. Assistant Professor Morning Star Home Science College, Angamaly

ACKNOWLEDGEMENT

First of all we thank God Almighty for helping us in the successful restructuring of the syllabus in BSc. Family and Community Science

The Board of Studies in Home Science puts on record our sincere thanks to the honorable Vice Chancellor of Mahatma Gandhi University, Dr. Babu Sebastian, for the guidance and help extended to us during the restructuring of BSc. Family and Community Science syllabus to suite the choice based Credit System. The vision and experience in the realm of higher education that he shared with us on various occasions have been very helpful and encouraging.

We thank the Pro-Vice Chancellor of the University, Dr. Sheena Shukkur for the constant monitoring of the process. Her unparalleled enthusiasm and willingness to hear and acknowledge sincere efforts is worth mentioning.

We wish to express our sincere thanks to Dr. K.V. Indulekha, former Principal, Assan Memorial College of Arts and Science, Chennai and Dr. Annie Ninan, Professor, KAHM Unity Women's College, Manjeri for giving all the help and expert guidance to restructure the syllabus.

We thank the Registrar of the University, the Academic Section and the Finance Section for extending their service for the smooth Completion of the syllabus restructuring.

Special thanks are due to the representatives from all the colleges affiliated to M.G. University, who have actively participated in the work shop. The Board of Studies acknowledges the Contributions from the participants of the workshop and also all the faculty who have contributed toward the curriculum and syllabus in Family and Community Science.

For Board of Studies in Home Science
Dr. Miriam Mani
(Associate Professor, CMS College, Kottayam)
Chair Person, Board of Studies in Home Science
Mahatma Gandhi University, Kottayam

ABOUT FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)

Home Science has contributed a great deal towards national development by training students to take up leadership roles in extension and community outreach programs. The students are encouraged to develop a scientific temper. Familiarizing them with the use of newer technologies, methods in family and community linkages, and sustainable use of resources for human development are the hall mark of education in Home Science. As a discipline Home Science integrates the ingredients of the sciences, social sciences and technology to facilitate the study of and enhance the quality of human life. Its approach is therefore inherently interdisciplinary. Traditionally, Home Science has adopted an ecological approach in its curriculum that engages the student through teaching, research and extension. The education process in Home Science underscores the importance of the individual's dynamic relationship with his/her family, community and society as a whole, as well as with the resources in the environment. Higher education learning in Home Science subjects provides students the opportunity to sharpen their capacities with a sense of social responsibility.

In contemporary times, Home Scientists promote capacity building of individuals and communities for social and economic empowerment. They train community women and youth from various strata of society for entrepreneurship. They gain and provide employment in research organizations, food and textile industries, dietetic practice, education and child development domains, accreditation of green buildings, strategic planning and communication technologies

GOAL OF HOME SCIENCE

Home Science aims to provide an integrated and multidisciplinary education, which develops and provides professional skills. The goals could be summarized thus:

1. Professional training and skill enhancement in order to provide and widen employment opportunities for women through a continuously updated curriculum, addressing contemporary issues.
2. Equally, updating the process of teaching, networking and developing educational materials based on innovative, interactive and participatory communication strategies.
3. Strengthening linkages with international organizations, government agencies, non-governmental academic institutions, policy makers and the general public with a view to providing employment opportunities for students and enriching the database in research in all fields.

4. Extension education in the field of nutrition and health , women and child development, apparel and fabric design, consumer education and public awareness with a view to better family and community living

HOME SCIENCE- A DISCIPLINE AND PROFESSION

Home Science covers a few areas of specialization such as Food and nutrition, Communication and Extension, Resource Management, Human Development, Fabric and Apparel science.

Family and Community Science (Home Science) comprises of five branches and are as follows:

1.	Foods, Nutrition and Dietetics
2.	Child Development/Human Development and Family Studies
3.	Home Management/ Family Resource Management
4.	Clothing and textiles
5.	Home Science Extension Education

The subject of family and Community Science offers a wide range of subjects at the UG level and hence it forms the basis for a variety of courses after graduation. During the course of the U G programme, the students would get ample time and opportunities to decide on their course of study for post graduation.

Options of higher education

Masters Degree in

- Food Science & Nutrition
- Human Development/Chid Development
- Family Resource Management
- Food Service Management &Dietetics
- Food Technology
- Textiles & Clothing
- Hospital Administration(MHA)
- Business Administration (MBA)
- Human Resource Management(MHRM)
- Social work(MSW)
- Women's Studies

- Guidance & Counselling
- Extension Education
- Journalism &Mass Communication

PG Diploma in

- Clinical Nutrition &Dietetics
- Interior /Landscape Designing
- Fashion Designing
- Clinical Child Development
- Early Childhood Care &Education
- Computer Aided Textile Designing
- Consumer Guidance &Protection

The scope of Family and Community Science (Home Science) is not limited to the activities within the home but has a wider perspective that forms the basis of challenging professions in various fields. The following is a list of career a person can opt for after Post Graduation.

Career Options

Technical Research & Development

- Scientists
- Food Quality Controllers
- Research Coordinators/Project Officers/Assistants of health & Nutritional Programmes, Welfare Programmes of government/NGOs, agencies of National & International repute- ICMR,ICAR,NIPCCD,CFTRI,UNICEF,WHO.

Production

Managers/Supervisors in garment/Food Industries, Production units of hotels

Education &Administration

- Teaching faculty in Colleges & Schools
- Administrators
- Special Educators

- Remedial Teachers in Rehabilitation Centres
- Teacher Trainers
- Extension Officers.

Product Design &Development

- Fashion Designers
- Interior /Land Scape Designers
- Textile Designers.
- Product Developers.

Marketing and Sales

- Apparel Merchandisers
- Sales Promotion Personnel of Food Products, Medical Supplements, Educational Materials, Home appliances.

Guidance and Counselling

Counsellors in Schools/Colleges and Child Guidance Clinics, De-addiction and Child Care Centres, Family Courts.

Service Jobs

- Dieticians in Hospitals
- Diet Consultants in Hotels, Industrial Canteens, Fitness Centres and geriatric Clinics, Health Resorts
- Housekeeping Personnel
- Consumer Awareness Campaigners
- Front Office Managers.

Entrepreneurship Ventures

- Food Business
- Garment Manufacturing
- Early Childhood Care and Education
- Consultancy Services.

REGULATIONS FOR UNDER GRADUATE PROGRAMMES UNDER CHOICE BASED CREDIT SYSTEM 2016

ELIGIBILITY FOR ADMISSION AND RESERVATION OF SEATS

1. Eligibility for admission –Candidates shall be required to have passed the plus two or equivalent examination or an examination recognized by the University thereto.
2. Students can opt for any one of the **Generic Elective Papers** offered by different departments of the college in fifth semester (subject to the availability of vacancy in the concerned discipline).If the number of applications exceeds the number of vacancies for a particular Generic elective paper, priority will be given to the students from the parent department (core subject). Selection of students in the generic elective paper will be done in the college based on merit and interest of the students.

DURATION OF THE COURSE

1. The duration of U.G. programmes shall be ***6 semesters***.
2. There shall be two Semesters in an academic year, the 'ODD' semester commences in June and on completion, the 'EVEN' Semester commences after a semester-break of three days with two months vacation during April and May. (The commencement of first semester may be delayed owing to the finalization of the admission processes.)
3. A student may be permitted to complete the Programme, on valid reasons, within a period of 12 continuous semesters from the date of commencement of the first semester of the programme.

SCHEME AND SYLLABUS

1. The U.G. programmes shall include **(a)** Common Courses I and II, **(b)** Core Course(s), **(c)** Complementary/Vocational Courses, and **(d)** Generic Elective Course (GE).
2. 2. There shall be one Generic Elective paper in the fifth semester with a choice of one out of three elective papers from any programme or from the Physical Education department.
3. There shall be one Choice Based paper in the sixth semester with a choice of one out of three elective papers.
4. Credit Transfer and Accumulation system can be adopted in the programme. Transfer of Credit consists of acknowledging, recognizing and accepting credits by an institution for programmes or courses completed at another institution. The Credit Transfer Scheme shall allow students pursuing a programme in one University to continue their education in another University without break.

5. A separate minimum of 30% marks each for internal and external (for both theory and practical) and aggregate minimum of 40% are required for a pass for a paper. For a pass in a programme, a separate minimum of **Grade D** is required for all the individual papers. If a candidate secures **F Grade** for any one of the paper offered in a Semester/Programme, **only F grade** will be awarded for that Semester/ Programme until he/she improves this to **D Grade** or above within the permitted period. (See Clause 5.3)
6. Students who complete the programme with 'D' grade in the "Regulations for Under Graduate Programmes under Choice Based Credit System 2016" will have one betterment chance within 12 months, immediately after the publication of the result of the whole programme.
7. Students discontinued from previous regulations, CBCSS 2013, can pursue their studies in "Regulations for Under Graduate Programmes under Choice Based Credit System 2016" after obtaining readmission. These students have to complete the programme as per "Regulations for Under Graduate Programmes under Choice Based Credit System 2016".
8. Practical examinations will be conducted only at the end of even semesters for all programmes.

PROGRAMME STRUCTURE

a	Programme Duration	6 Semesters
b	Total Credits required for successful completion of the Programme	120
c	Credits required from Common Course I	22
d	Credits required from Common Course II	16
e	Credits required from Core course and Complementary courses including Project	79
f	Generic Elective (GE)	3
g	Minimum attendance required	75%

EXAMINATIONS

1. The evaluation of each paper shall contain two parts:
   (i) Internal or In-Semester Assessment (ISA)
   (ii) External or End-Semester Assessment (ESA)

2. The internal to external assessment ratio shall be 1:4. There shall be a maximum of **20** marks for internal evaluation and a maximum of 80 marks for external evaluation. Both internal and external marks are to be mathematically rounded to the nearest integer. For all

papers (theory & practical), grades are given **on a 10-point scale** based on the total percentage of marks, ***(ISA+ESA)*** as given below:-

Percentage of Marks	Grade	Grade Point
95 and above	S Outstanding	10
85 to below 95	A^+ Excellent	9
75 to below 85	A Very Good	8
65 to below 75	B^+ Good	7
55 to below 65	B Above Average	6
45 to below 55	C Satisfactory	5
40 to below 45	D Pass	4
Below 40	F Failure	0
	Ab Absent	0

MARK DISTRIBUTION FOR EXTERNAL EXAMINATION AND INTERNAL EVALUATION

The external theory examination of all semesters shall be conducted by the University at the end of each semester. Internal evaluation is to be done by continuous assessment. For all papers (theory and practical) total marks of external examination is 80 and total marks of internal evaluation is 20.

Marks distribution for external and internal assessments and the components for internal evaluation with their marks are shown below:

1. For all theory papers

a) Marks of external Examination : 80

b) Marks of internal evaluation : 20

All the three components of the internal assessment are mandatory.

Components of Internal Evaluation of theory	Marks
Attendance	**5**
Assignment /Seminar/Viva	**5**
Test paper(s) (1 or 2) (1x10=10; 2x5=10)	**10**
Total	**20**

2. For all practical papers

a) **Marks of external Examination : 80**

b) **Marks of internal evaluation : 20**

All the four components of the internal assessment are mandatory.

Components Internal evaluation of Practical	**Marks**
Attendance	5
Test paper	5
Record*	5
Lab involvement	5
Total	**20**

*Marks awarded for Record should be related to number of experiments recorded and duly signed by the concerned teacher in charge.

3. For projects

a) **Marks of external Examination : 80**

b) **Marks of internal evaluation : 20**

Components of External Evaluation of Project	**Marks**
Dissertation (External)	50
Viva-Voce (External)	30
Total	**80**

All the four components of the internal assessment are mandatory.

Components Internal Evaluation of project	**Marks**
Punctuality	**5**
Experimentation/Data collection	**5**
Knowledge	**5**
Report	**5**
Total	**20**

4. Attendance Evaluation

For all papers

% of attendance	Marks
90 and above	5
85 – 89	4
80-84	3
76-79	2
75	1

(Decimals are to be rounded to the next higher whole number)

5. ASSIGNMENTS

Assignments are to be done from 1st to 4th Semesters. At least one assignment should be done in each semester for all papers.

6. SEMINAR/VIVA

A student shall present a seminar in the 5th semester for each paper and appear for Viva-voce in the 6th semester for each paper.

7. INTERNAL ASSESSMENT TEST PAPERS

At least one internal test-paper is to be attended in each semester for each paper. .

EXTERNAL EXAMINATION

The external theory examination of all semesters shall be conducted by the University at the end of each semester.

Students having a minimum of 75% average attendance for all the courses only can register for the examination. Condonation of shortage of attendance to a maximum of 10 days in a semester subject to a maximum of 2 times during the whole period of the programme may be granted by the University on valid grounds. This condonation shall not be counted for internal assessment. Benefit of attendance may be granted to students attending University/College union/Co-curricular activities by treating them as present for the days of absence, on production of participation/attendance certificates, within one week, from competent authorities and endorsed by the Head of the institution. This is limited to a maximum of 10 days per semester and this benefit shall be considered for internal assessment also. Those students who are not

eligible even with condonation of shortage of attendance shall repeat the **semester** along with the next batch after obtaining readmission.

Project

All students are to do a **project in the area of core course.** This project can be done individually or in groups (not more than five students) for all subjects which may be carried out in or outside the campus. The projects are to be identified during the II semester of the programme with the help of the supervising teacher. The report of the project in duplicate is to be submitted to the department at the sixth semester and are to be produced before the examiners appointed by the University. External Project evaluation and Viva / Presentation is compulsory for all subjects and will be conducted at the end of the programme.

There will be no supplementary exams. For reappearance/ improvement, the students can appear along with the next batch.

A student who registers his/her name for the external exam for a semester will be eligible for promotion to the next semester.

A student who has completed the entire curriculum requirement, but could not register for the Semester examination can register notionally, for getting eligibility for promotion to the next semester.

A candidate who has not secured minimum marks/credits in internal examinations can re-do the same registering along with the University examination for the same semester, subsequently.

PATTERN OF QUESTIONS

Questions shall be set to assess knowledge acquired, standard and application of knowledge, application of knowledge in new situations, critical evaluation of knowledge and the ability to synthesize knowledge. The question setter shall ensure that questions covering all skills are set. She/he shall also submit a detailed scheme of evaluation along with the question paper.

A question paper shall be a judicious mix of very short answer type, short answer type, short essay type /problem solving type and long essay type questions.

Pattern of questions for external examination for theory paper

Pattern	Marks	Choice of questions	Total marks
Short Answer	**2**	**9/12**	**18**
Paragraph answer	**4**	**6/9**	**24**
Problem/ Short Essay	**6**	**3/5**	**18**
Long Essay	**10**	**2/4**	**20**
		20/30	**80**

STRUCTURE OF BACHELOR'S PROGRAMME IN FAMILY AND COMMUNITY SCIENCE

TOTAL CREDITS-120

Semester I **Total Credits -17**

No	Course Title	Hrs/ Week	Credits
1	Common Course -English - 1	5	4
2	Common Course -English - 2	4	3
3	Common Course 3-Second Language – 1	4	4
4	Core **Theory - I** Human Physiology and Microbiology	2	2
5	Core **Practical -1** Human Physiology andMicrobiology	2	-
6	1st Complementary Course- Chemistry I	2	2
7	1st Complementary Course -1 Chemistry Practical I	2	-
8	2nd Complementary Course -Zoology I	2	2
9	2nd Complementary Course Practical- Zoology I	2	-
	Total	25 hrs	17

Semester 2 **Total Credits- 23**

No	Course Title	Hrs/ Week	Credits
1	Common Course 4- English 3	5	4
2	Common Course 5- English 4	4	3
3	Common Course 6- Second Language -2	4	4
4	Core **Theory - 2 -** Food Science	2	2
5	Core **Practical - 2-** Food Science	2	2
6	1st Complementary Course Chemistry II	2	2
7	1st Complementary Course Chemistry Practical II	2	2
8	2nd Complementary Course -Zoology II	2	2
9	2nd Complementary Course Practical –Zoology II	2	2
	Total	25 hrs	23

Semester 3 **Total Credits -17**

No	Course Title	Hrs/ Week	Credits
1	Common Course 7- English 5	5	4
2	Common Course 8- Second Language 3	5	4
3	Core **Theory - 3 -** Human Development	3	3
4	Core **Practical -3 –** Human Development	2	-
5	1st Complementary Course - Chemistry III	3	3
6	1st Complementary Course Practical -Chemistry III	2	-
7	2nd Complementary Course -Zoology III	3	3
8	2nd Complementary Course Practical -Zoology III	2	-
	Total	25 hrs	17

Semester 4 **Total Credits- 23**

No	Course Title	Hrs/ Week	Credits
1	Common Course -9 English -6	5	4
2	Common Course -10 Second language 4	5	4
3	Core **Theory - 4-** Family Dynamics	3	3
4	Core **Practical - 4-** Family Dynamics	2	2
5	1st Complementary Course – Chemistry 4	3	3
6	1st Complementary Course - Chem. Practical-4.	2	2
7	2nd Complementary Course - Zoology -4	3	3
8	2nd Complementary Course- Practical.-Zoology -4	2	2
	Total	25 hrs	23

Semester 5 **Total Credits- 16**

No	Course Title	Hrs/ Week	Credits
1	Core **Theory 5-** Interior Decoration **Practical -5** Interior Decoration	3 3	3 -
2	Core **Theory 6-** Human Nutrition and Biochemistry **Practical** -6- Human Nutrition and Biochemistry	3 2	3 -
3	Core **Theory- 7** Textile Science **Practical** -7 Textile Science	3 2	3 -
4	Core **Theory 8-** Extension Education **Practical -8-** Extension Education	4 2	4 -
5	Generic Elective Course GE- 1 – General Psychology GE- 2 – Traditional Textiles and embroideries of India GE -3 – Physical fitness and Health Management	3	3
	Total	25 hrs	16

Semester 6 **Total Credits -24**

No	Course Title	Hrs/ Week	Credits
1	**Core Course -9-** Family Resource Management **Practical -9-**Family Resource Management	3 2	3 2
2	**Core Course –** 10 Clinical Nutrition and Dietetics **Practical-10** Clinical Nutrition and Dietetics	3 3	3 2
3	**Core Course- 11** Fashion Designing and Apparel Production **Practical-11** Fashion Designing and Apparel Production	3 3	3 2
4	**Core Course -12** Communication in Extension. **Practical-12** Communication in Extension.	3 2	3 2
6	**Core Course Choice based (Electives)** Elective I – Food Safety Elective 2 – Early Childhood care and Education Elective 3- New trends in Family and Community Science	3	3
7	Project work	Nil	1
	Total	25 hrs	24

Scheme: Core Course

SEMESTER I

Course Code	Course Title	Hours /week	Number of Credits	Total Credits	Total Hours /Semester
HS1CRT01	Human Physiology and Microbiology	2	2	2	(36+36) 72
HS1CRP01	Practical	2	-		

SEMESTER II

Course Code	Course Title	Hours /week	Number of Credits	Total Credits	Total Hours /Semester
HS2CRT02	Food Science	2	2	4	(36+36) 72
HS2CRP02	Practical	2	2		

SEMESTER III

Course Code	Course Title	Hours /week	Number of Credits	Total Credits	Total Hours /Semester
HS3CRT03	Human Development	3	3	3	(54+36) 90
HS3CRP03	Practical	2	-		

SEMESTER 1V

Course Code	Course Title	Hours /week	Number of Credits	Total Credits	Total Hours /Semester
HS4CRTO4	Family Dynamics	3	3	5	(54+36)
HS4CRPO4	Practical	2	2		90

SEMESTER V

Course Code	Course Title	Hours /week	Number of Credits	Total Credits	Total Hours /Semester
HS5CRT05	Interior Decoration	3	3	3	(54+54) 108
HS5CRP05	Practical	3	-		
HS5CRT06	Human Nutrition and Biochemistry	3	3	3	(54+36) 90
HS5CRP06	Practical	2	-		
HS5CRT07	Textile Science	3	3	3	(54 +36) 90
HS5CRP07	Practical	2	-		
HS5CRT08	Extension Education	4	4	4	(72+ 36) 108
HS5CRP08	Practical	**2**	**-**		
HS5GET01 HS5GET02 HS5GET03	**Generic Elective Paper** **1.** General Psychology **2**. Traditional Textiles and embroideries of India 3. Physical fitness and Health Management	**3**	**3**	**3**	**54**

SEMESTER VI

Course Code	Course Title	Hours /week	Number of Credits	Total Credits	Total Hours /Semester
HS6CRTO9	Family Resource Management	**3**	**3**	**5**	**(54+36) 90**
HS6CRP09	Practical	**2**	**2**		
HS6CRT10	Clinical Nutrition and Dietetics	**3**	**3**	**5**	**(54+54) 108**
HS6CRP10	Practical	**3**	**2**		
HS6CRT11	Fashion Designing and Apparel Production	**3**	**3**	**5**	**(54+54) 108**
HS6CRP11	Practical	**3**	**2**		
HS6CRT12	Communication in Extension	**3**	**3**	**5**	**(54+36) 90**
HS6CRP12	Practical	**2**	**2**		
HS6CBT01 HS6CBT02 HS6CBT03	**Choice Based Courses** 1 Food Safety 2. Early Childhood care and Education 3. New trends in Family and Community Science	**3**	**3**	**3**	**54**
HS6PR	Project	Nil	1	1	--

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EXAMINATION SCHEME: CORE COURSE

Semester	Title of the Course	No. of credits	Total hours per semester	Exam Duration	Total Marks Internal	Total Marks External
1	Human Physiology and Microbiology	2	36	3	20	80
	Practical	-	36	-	-	-
2	Food Science	2	36	3	20	80
	Practical	2	36	3	20	80
3	Human Development	3	54	3	20	80
	Practical	-	36	-	-	-
4	Family Dynamics	3	54	3	20	80
	Practical	2	36	3	20	80
5	Interior Decoration	3	54	3	20	80
	Practical	-	54	-		
	Human Nutrition and Biochemistry	3	54	3	20	80
	Practical	-	36	-		
	Textile Science	3	54	3	20	80
	Practical	-	36	-	-	-
	Extension Education	4	72	3	20	80
	Practical	-	36	-	-	-
	Generic Elective Paper 1.General Psychology 2.Traditional Textiles and Embroideries of India 3.Physical Fitness and Health Management	3	54	3	20	80
6	Family Resource Management	3	54	3	20	80
	Practical	2	36	3	20	80

	Clinical Nutrition Practical	3 3	54 54	3 3	20 20	80 80
	Fashion Designing Practical	3 3	54 54	3 3	20 20	80 80
	Communication in Extension Practical	3 2	54 36	3 3	20 20	80 80
	Choice Based Courses 1.Food Safety 2.Early Childhood Care and Education 3.New trends in Family and Community Science	3	54	3	20	80
	Project	1	--		20	80

SYLLABI OF
CORE COURSE

Bachelor Programme in Family and Community Science
(Home Science)

SEMESTER I

HUMAN PHYSIOLOGY AND MICROBIOLOGY

CORE THEORY- 1

Course Code: HS1CRT01

Teaching hours: 2 hrs/week (Hrs./Sem.36)

Credit: 2

Objectives:

- To understand the integrated functions of the various systems of the human body.
- To understand the economic importance of microorganisms.
- To understand the principles of various methods used in the prevention and control of micro-organisms.
- To study the food standards and role of various agencies in maintaining quality control

Course Content

Module 1: Respiratory and Cardiovascular System (7 hours)

Structure of respiratory system, hypoxia, lung volume and capacities

Composition and functions of blood, Haemoglobin, Coagulation of blood, Blood groups

Structure of heart, Circulation (Systemic, pulmonary, coronary and portal system) Cardiac cycle, Cardiac output, Blood pressure, Myocardial infarction.

Module 2: Digestive and Excretory System (7 hours)

Structure and function of kidney, Nephron, Mechanism of Urine formation

Structure and functions of stomach, liver, gallbladder, pancreas, Composition, function and regulation of gastric intestinal secretion.

Module 3: Endocrine and Reproductive System (7 hours)

Endocrine glands and hormones in brief, Action and disorder of pituitary, thyroid, parathyroid, Adrenal and pancreatic hormones

Structure of uterus, ovary, ovary gland (hormones) and their functions

Module 4: Basic concepts of Microbiology (8 hours)

Classification of microorganisms, important microorganisms- Structure and economic importance of microorganism-bacteria, yeast. Factors affecting the growth of micro organisms, Culture media and culture techniques, Isolation and identification, grams staining.

Sterilization and disinfection- definition and methods

Module 5: Infection and Immunity (7 hours)

Sources of microorganisms, Transmission of infection, bacterial infections in man- typhoid,

Pneumonia. Viral infections – Hepatitis, AIDS.

Natural defences of the body—primary and secondary defence mechanisms. Immunity types,

Immunization followed for various diseases, allergy.Hypersensitivity

Core Readings:

- Jain,A.K., (2003),*Textbook of Physiology*,Volume I, New Delhi. Avichal Publishing Company
- Vidya rattan.,(2004),*Handbook of Human Physiology*,7 th edition, New Delhi.: Jaypee Brothers Medical Publishers(p) Ltd,.
- Ross and Wilson. (2006). *Anatomy and Physiology in Health and Illness*, 10 th edition. London. Elsevier limited,
- Joshua A.K.,(1994),*Microbiology,* Popular book Depot Publishers.
- Anathanarayan,.R and Panicker, C.K.J.(2009) .*Text book of Microbiology*,8 th edition New Delhi.: Universities Press (India) pvt. Ltd.,

Advanced References:

- Guyton: *Medical Physiology*
- C.C.Chatterjee: *Human Physiology*, Vol I and II.

HUMAN PHYSIOLOGY AND MICROBIOLOGY- PRACTICAL

CORE PRACTICAL- 1

Course Code: HS1CRP01

Teaching hours: 2 hrs/ week (Hrs./Sem.36)

Credit: 1

1. 1. Determination of Blood groups (4hrs)
2. 2. Preparation of wine and curd (Economic importance of micro organisms) (8 hrs)
3. 3. Identification of micro organisms by gram staining (8hrs)
4. 4. Diagrammatic representation of endocrine glands. Make chart on the secretions of endocrine glands and their functions (8hrs)
5. 5. Report of visit to a diagnostic laboratory/Microbiology lab (8hrs)

(A record of the entire practical should be maintained)

SEMESTER II

FOOD SCIENCE

CORE THEORY - 2

Course Code: HS2CRT02

Total lecture hours: 2 hrs/week (36 Hrs./Sem.)

Credit: 2

Objectives: Enable the student to

- Obtain knowledge of different food groups, nutritive value and importance in diet.
- Study the different methods of cooking , its merits and demerits
- Understand the composition, chemistry of foods and their applications in food preparations
- Study principles and methods of food preservation
- To acquaint with the recent advances in the field of food science and to enable to plan diet for healthy life style

Course Content

Module 1: Food groups and Food preparation (6 hrs)

Food groups: Functions of foods, food groups (Basic food group system – (ICMR)

Food preparation: Objectives, Methods of cooking**-** moist heat, dry heat and combination methods, merits and demerits of various methods

Food Additives:

Definition, Class, functions

Developments in the field of food science; Genetically modified foods, organic foods, functional foods.

Module 2: Study of macro nutrients in foods (6 hrs)

Carbohydrates

Definition, composition, classification, starch – structure, effect of cooking, Stages of sugar cookery and its applications. Role of carbohydrates in food preparation

Proteins

Structure, nutritional classification (complete, partially complete, incomplete)of proteins and classification (essential and nonessential) of amino acids, denaturation, food sources of proteins- plant, animal and non-traditional proteins- single cell(yeast), leaf proteins, whey protein, textured vegetable protein, functional properties of proteins in food preparation.

Lipids

Definition, composition, classification. Lipids in foods (visible and invisible), fatty acids (saturated, unsaturated, essential, trans, cis), rancidity- types, factors leading to rancidity, prevention, hydrogenation, applications of lipids in food preparations.

Module 3: Study of Plant Foods (11 hrs)

Cereals

Basic structure of a cereal grain, nutritive value, common cereals and millets in India, gluten formation, factors affecting, parboiling its merits and demerits.

Pulses

Nutritive value and health benefits, germination and fermentation, advantages, anti nutritional factors (trypsin inhibitors, lathyrism). Common pulses used in India.

Vegetables and Fruits

Classification, nutritive value, pigments, effects of acid and alkali, enzymatic browning, methods of prevention

Vegetable cookery- purpose, conservation of nutrients, selection and storage

Flavour components, organic acids and enzymes, changes in fruits during ripening, antioxidant role.

Nuts and oil seeds

Nutritive value, types, toxicants, role of nuts and oil seeds in cookery

Spices

Health benefit of spices. Major spices of India

Module 4: Study of Animal Foods (11 hrs)

Milk and milk products

Composition and nutritive value, pasteurisation, and homogenisation, advantages; Types of milk and milk products

Egg

Structure, composition and nutritive value, deterioration in egg quality, evaluation, egg white foaming, stages, factors affecting, culinary role of eggs, designer eggs, speciality eggs

Meat

Structure, composition and nutritive value, rigor mortis, effect of cooking on meat, types of meat and products.

Poultry

Classification, processing, nutritive value

Fish

Classification, nutritive value, fish spoilage and preservation

Module 5: Food Preservation (2hrs)

Principles and methods of food preservation

Core Readings

- Benion M (1995) *Introductory Foods*, 10th Ed, USA.: Prentice Hall.
- Gopalan. C. , Ramasastry, S.V. And Balasubramanium. S.C. (2008).Nutritive *Value Of Indian Foods,* Hyderabad.:National Institute Of Nutrition,
- Shakuntala Manay, N. Shadaksharaswamy M. (2001). *Food Facts and Principles,* 2nd Edition. New Age International.
- Srilakshmi, B(2002*). Food Science*, New Delhi .:New Age International p Ltd,
- Swaminathan .M. (2003). *Advanced Textbook on Food and Nutrition*, The Bangalore Printing and Publishing Co., Ltd., 2ndEd,
- Usha Chandrasekhar (2002), *Food Science and its Applications in Indian Cookery*, New Delhi .: Phoenix Publishing House.

FOOD SCIENCE - PRACTICAL

CORE PRACTICAL-2

Course Code: HS2CRP02

Teaching hours: 2 hours/week (36 Hrs. /Sem.)

Credit: 1

1. Grouping of foods (2 hrs)
2. Gelatinization temperatures of various types of starches (6 hrs)
3. Stages of sugar cookery (3 hrs)
4. Evaluation of gluten content in a cereal flour (2 hrs)
5. Components of an egg (2 hrs)
6. Stages of egg white foam formation (3 hrs)
7. Changes of meat during cooking (2 hrs)
8. Effect of cooking on vegetable pigments (2 hrs)
9. Enzymatic browning, Methods to prevent browning in fruits (6 hrs)
10. Non enzymatic browning (2 hrs)
11. Food preservation techniques (6 hrs)

SEMESTER III

HUMAN DEVELOPMENT

Course Code: HS3CRT03
Teaching Hours: 3hrs/Week (Per Sem 54)
Credit: 3

CORE THEORY-3

Objectives :

- To impart knowledge on the principles & pattern of growth & development of children from conception to old age .
- To create an awareness on the factors that stimulate growth and development
- To expose the students on the different aspects of personality development .
- To create an awareness on the different concerns and issues during adolescence.

Course Content

Module 1 : Introduction to Human development (8 Hrs)

Human development- significance & Scope

Methods of child study – Anthropometry, observation , interview , questionnaire , case study , projective techniques, psychological tests, sociometry, longitudinal & cross sectional approach.

Growth & development – Definition, principles, stages, areas, factors influencing, heredity – environment interaction.

Personality development – definition, types-based on temperament, body build, Psychological types. Determinants of personality

Module 2: Pre - natal development & Neonate (15Hrs)

A) Prenatal development – conception, stages, factors influencing, complications / hazards during pregnancy, Prenatal care, child birth.
B) Neonate- definition, physical characteristics, abilities, adjustments, New born care – Feeding , immunization, baby friendly Hospitals. APGAR test, at risk babies, needs & rights of children.

Module 3: Development during childhood years. (15 Hrs)

Physical, motor, intellectual, emotional, social & language development during infancy, babyhood, early childhood and late childhood. Factors influencing.

Module 4: Development during Adolescence. (8 Hrs)

Definition, characteristics. developments during adolescence- Physical, cognitive, emotional & social development. Identity formation & identity crisis. Different issues and concerns during adolescence- anorexia nervosa, Bulimia, obesity, depression, suicidal behavior, substance abuse, adolescent stress, peer pressure, Adolescent pregnancy, personal problems. Causes, consequences & management of each

Module 5: Discipline & guidance for children, (8 Hrs)

Discipline – essentials, techniques and its effects on children

Play – importance, types, selection of toys, indigenous toys.

Habit formation- definition, principles.

Core Readings:

- Berk, L.E. (2000) child development (8th Edn) PHI learning Pvt Ltd, New Delhi.
- Devadas ,R and Jaya,N. (2005) , A Text book on Child development.
- Hurlock, E.B. (2008), Developmental Psychology – A life span approach,5th Edn.
- Marshall ,J and Stuart S (2001) Child Development, Heinemann Educational Pub.
- Sandrock,J.W (2010) Child development – An Introduction ,12th Int. Edn,New York, McGraw Hill.
- Minett ,P.(2005) . Child Care & Development, 5th Edn. John Murray Pub. Ltd.
- Shaffer,D.R. and Kipp ,K.(2007) Developmental Psychology: childhood and adolescence, 7th Edn, Thomson Wadsworth. Australia.
- Suriakanthi,A.(2009). Child Development – An Introduction,4th Edn. Kavitha Publications

HUMAN DEVELOPMENT – PRACTICAL

Course Code: HS3CRP03 | **CORE PRACTICAL-3**

Teaching Hours: 2hrs/Week (Per Sem 36)

Credit: 1

1. Study of physical & motor, Intellectual, emotional and social development of a Pre-school child.
2. Preparation of growth enhancing material/ play materials/ toys for infants / toddlers/ Pre- school children.
3. Growth monitoring of a child below 5 years using growth chart.
4. Preparation of a brochure/ leaflet /folder/chart on any related topic in Human development.
5. Preparation of an illustrated album / a power point on any topic related to Human development.

SEMESTER IV

FAMILY DYNAMICS

Course Code: HS4CRT04 | **CORE THEORY -4**

Teaching Hours: 3hrs/Week (Per Sem 54)

Credit: 3

Objectives:

- To orient the students about the different aspects of marriage and the factors leading to Successful marriage.
- To create an awareness on the different aspects of family , family interactions and the current issues affecting family.
- To help the students to develop a positive attitude towards the critical family situations and to equip them with the coping strategies.
- To create an awareness in the youth about the Needs & problems of the elderly and to develop in them a positive attitude towards the care of the aged.

Course Content :

Module 1. Marriage (8 Hrs)

Definition, Functions, types .Marital adjustment -Areas of Adjustment. Factors leading to successful married life.

Module 2. Family (12 hrs)

a. Family- the basic social institution, functions of family. Types-Joint, Nuclear, extended, lone-parent, reconstituted families. Family Interactions (Husband –wife & parent – child) and its influence on child development. Responsible parenthood. (Marshel & stewart (2001)

b. Contemporary issues affecting family- maternal employment, Lone parenthood, reconstituted families, electronic media**.**

Module 3: Critical family situations and the coping strategies (20 Hrs)

a) Family Crisis - Meaning, and types - Death, divorce, desertion, suicide, prolonged illness, imprisonment, unemployment, dowry, alcoholism, drug addiction, war separation, economic depression. Consequences & coping strategies

b) Children with special needs -Definition, general classification, characteristics, general causes, role of family towards children with special needs.

c) Children with Behaviour problems- definition, causes , methods of handling

Module 4. Population education(7 Hrs)

Definition**.** Overpopulation – definition & its problems.

Methods of family planning. Sex education.

Module 5: Old age (7 Hrs)

Physical & psychological changes during old age Needs, problems of the elderly. Care of the aged.

Core Readings :-

- Devadas, R and Jaya, N. (2005), A Text book on Child development.
- Hurlock, E.B. (2008), Developmental Psychology – A life span approach,5th Edn.
- Marshall, J and Stuart S (2001) Child Development, Heinemann Educational Pub.
- Minett, P. (2005). Child Care & Development, 5th Edn. John Murray Pub. Ltd.
- Suriakanthi, A. (2009). Child Development – An Introduction, 4th Edn. Kavitha Pub

FAMILY DYNAMICS- PRACTICAL

Course Code: HS4CRP04 | **CORE PRACTICAL -4**

Teaching Hours: 2hrs/Week (Per Sem 36)

Credit: 1

1. Visit to an Old age Home/ pakal veedu and interact with the inmates to assess their experiences (problems / interests/ desires) and report . (8hrs)

2. Study on the characteristics of a child with any behaviour problem. (8hrs)
3. Preparation of a brochure/ leaflet /folder/chart on any topic related to family Dynamics (10hrs)
4. Preparation of a power point presentation on any related topic of your study. (10hrs)

SEMESTER V

INTERIOR DECORATION

CORE THEORY-5

Course Code: HS5CR05

Teaching hours: 3hrs/week (Per Sem: 54 hours)

Credit: 3

Objectives:

To enable the students:

- To use and understand the elements and principles of design,
- To develop basic skills for a career option in Interior Designing,
- To gain the basic knowledge of furniture arrangement and furnishing the residential interior and exterior space.

Module 1: Art and Design **(12 hours)**

Introduction to Interior Designing, Importance of good taste, Concept and objectives of interior decoration, Definition, Types of design, Elements of design-line, shape, texture, colour, pattern, light and space ; Principles of design- proportion, balance, rhythm, emphasis, harmony.

Module 2: Colour **(9 hours)**

Qualities of colour, Prang colour system, Colour harmonies and schemes; Use and effects of various colours, colour schemes for various rooms.

Module 3: Home Lighting **(6 hours)**

Importance of home lighting, Sources of lighting- natural and artificial, types of lamps and types of lightings- Direct, Indirect, semi direct and semi indirect. Lighting for different rooms. Physical and Psychological aspects of lighting.

Module 4: Furniture, Furnishing and Accessories **(15 hours)**

Furniture requirement for various rooms, guidelines for selection and arrangement of furniture, Classification and selection of soft furnishings, Types of windows, window treatments - curtain styles, selection and care of rugs and carpets. Accessories - Classification and their role in interiors, flower arrangement - principles, different styles, and basic shapes, drying techniques and dry flower arrangement, indoor gardening and bonsai

Module 5: Interior and Exterior Space Organisation **(12 hours)**

Space requirement for various activities in various rooms; storage for living, dining and bed rooms, Principles of space planning; space saving techniques ; Kitchen- types of kitchen, modular kitchen, working areas and work triangle. Objectives and principles of landscape gardening, Types-formal, informal; Styles, Garden components and routine duties in gardening

Core Readings:

- Rutt, A.H. (1963) *Home furnishing.* John Wiley & Sons, Inc.;
- Teresa, P. Lanker. (1960). Flower *Arranging: Step-by-step Instructions for Everyday Designs.* Florist Review
- Craig, H.T. and Rush, O.D. (1966). *Homes With Character.* Heath, 1966
- Goldstein. H & Goldstein V. (1954). *Art in Everyday Life* Macmillan Publishers.
- Faulkner, R. & Faulkner,S. (1961) *Inside Today's Home.* Rev. ed. © Holt, Rlnehart & Winston, Inc.
- Supriya, K.B.(2004). *Landscape gardening and designing with plants.* Pointer Publishers,

INTERIOR DECORATION (PRACTICAL)

Course Code: HS5CT05 | **CORE PRACTICAL-5**

Teaching hours: 3hrs/week (Per Sem: 54 hours)

Credit: 1

Module 1. Design and colour **(12 hours)**

Application of various types of design, elements of design and principles of designs; Application of motif in a design suitable for furnishing / accessories

Preparation of colour charts and application of colour schemes in a design/ room

Module 2. Flower Arrangement, table setting and napkin folding **(8 hours)**

Demonstration of basic shapes in flower arrangement, Dry flower arrangement, Ikebana, Artificial flower making and arrangement, Bouquet making. Table setting, Napkin folding.

Module 3. Furnishings **(6 hours)**

Curtain Styles : Illustration of various curtain styles,

Module 4. Evaluation of Interiors **(2 hours)**

Photographic evaluation of any two rooms (Living room, dining room, bed room, bath room, kitchen etc.)

Module 5. Creative arts **(8 hours)**

Creation of art objects Any decorative/ functional accessory.

A record of the entire practical should be maintained

Core Readings:

- Kasu, A (2005) Interior design, Ashis Book Centre, Mumbai
- Rutt, A.H. (1963) *Home furnishing.* John Wiley & Sons, Inc.;
- Teresa, P. Lanker. (1960). Flower *Arranging: Step-by-step Instructions for Everyday Designs.* Florist Review
- Craig, H.T. and Rush, O.D. (1966). *Homes With Character.* DC Health and Company, Boston
- Goldstein. H & Goldstein V. (1954). *Art in Everyday Life* Macmillan Publishers. New York
- Faulkner, R. & Faulkner,S. (1961) *Inside Today's Home.* Rev. ed. © Holt, Rlnehart & Winston, Inc.

Supriya, K.B.(2004). *Landscape gardening and designing with plants.* Pointer Publishers.

HUMAN NUTRITION AND BIOCHEMISTRY

Course Code: HS5CRT06 | **CORE THEORY-6**

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives

- To obtain an insight into the chemistry of major nutrients and physiologically important compounds
- To understand the role of nutrition in different stages of life cycle
- To enable the students to plan menus in accordance with basic concepts for nutrition

Course Content

Module I. Introduction to Nutrition Science (2 hrs)

Define nutrition, RDA, Factors affecting RDA, RDA for different nutrients, Indian reference man and woman.

Module 2. Human Energy Requirements (4 hrs)

Definition of energy requirements, factors influencing food intake, total energy requirements. Measurement of BMR, factors affecting BMR, thermic effect of food. Measurement of basal metabolism -Direct calorimetric- Bomb calorimeter, indirect calorimetric method- benedict's oxy calorimeter. Energy requirements.

Module 3. Macronutrients and their metabolism(15hrs)

a. **Carbohydrates**-Functions, Digestion, Absorption and Metabolism . Types of dietary fibre, physiological and metabolic effects of dietary fibre and potential health benefits.
b) **Proteins –** Classification of proteins and amino acids, functions, Digestion, Absorption, Metabolism – Deamination, Transamination, Decarboxylation) Protein turnover, methods of evaluating protein quality-Biological value, net protein utilisation, digestibility coefficient.
c) **Lipids –** Composition, function, Digestion, Absorption, Metabolism–(Beta-oxidation, ketone body formation).
d) **Water:** Functions, Distributions of body water, Factors influencing water distribution, Regulation of water balance, requirements of water, dehydration, oedema.

Module 4. Vitamins and Minerals (15 hrs)

Fat soluble vitamins A, D, E and K

a. Fat soluble vitamins- classification, food sources, functions, deficiency/toxicity and requirements

b. Water soluble vitamins

Classification, food sources, functions, deficiency/toxicity, requirements.

c. **Macro minerals** –Functions, food sources, deficiency/toxicity and requirements of calcium, phosphorus, sodium, potassium.

d) Micro minerals –Factors affecting absorption of minerals, functions, food sources, deficiency and requirements of iron, iodine, fluorine and zinc.

Module 5: Principles of Human Nutrition (18hrs)

a) Assessment of nutritional status– Theoretical Aspects

i. Anthropemetry – measurements of height, weight, head and chest. Circumference, mid arm circumference, skin fold thickness, interpretation of measurements and comparison with standards (NCHS, ICMR), classification according to grades of malnutrition.

ii. Clinical signs and symptoms of PEM, and deficiencies of vitamins and minerals

iii. Biochemical parameters for assessing the nutritional status

iv. Dietary Assessment – oral questionnaire (24 hour recall method), weighment method

b) Nutrition in Infancy

Growth & development, Nutritional requirement, breast feeding- advantages, Define-weaning and types of supplementary Foods.

c) Nutrition in Preschool Age

Growth & nutrient need, nutrition related problems, feeding patterns, Diet plan.

d) Nutrition in school children

Nutritional requirement, dietary guidelines, packed lunches, school lunge programme – mid day meal programme, diet planning.

e) Nutrition in Adolescence

Growth and nutritional requirement, factors influencing dietary guidelines, eating disorders.

f) Nutrition in adulthood –

Nutritional requirements**,** Dietary Recommendations for Adults, factors affecting diet planning.

g) Nutrition in Pregnancy

Physiological changes during pregnancy, nutritional requirements, complications in pregnancy- gestational diabetes, toxemia, infections, effect of maternal malnutrition on foetus

h) Nutrition in Lactation

Nutritional requirements, human milk composition and importance, lactogogues, diet planning.

i) Nutrition in old age

Factors affecting food intake and nutrient use, nutrient needs, diet planning.

Core Readings:

- Srilakshmi, B. (2008). *Nutrition Science*, 3rd edn, New Delhi.: New Age International (p) Ltd. Publishers.
- Bamji M.S., Krishnaswamy, K., and Brahmam G.N.V.(2009). *Textbook of Human Nutrition,* 3rdedn. New Delhi.: Oxford and IBH Publishing Co. Pvt. Ltd.,
- Park, K. (2005).*Park's Textbook of Preventive and Social Medicine*, 18th edn. India: M/s Banarsidas Bhanot Publishers, Jabalpur,.
- Swaminathan,M. (2001*).Principles of Nutrition and Dietetics*. Bangalore.: The Bangalore Printing and Pub,Co,Ltd,,
- C. Gopalan, B.V. Ramasastri and S.C. Balasubramanian. (2007). *Nutritive value of Indian Foods*. Hyderabad.: NIN, ICMR
- .Nutrient Requirements and Recommended Dietary Allowances for Indians –I.C.M.R. Publication 1999.

HUMAN NUTRITION AND BIOCHEMISTRY-PRACTICAL

Course Code: HS5CRP06 | **CORE PRACTICAL-6**

Teaching Hours: 2hrs/Week (Per Sem: 36)

Credit: 1

Course Outline

I. Food Analysis **(18hrs)**

1. Qualitative tests for carbohydrates, protein, calcium, phosphorus and iron

2. Quantitative tests for

a. Lactose in milk

b. Vitamin C in food stuffs

c. Calcium in foods

II. Planning, preparing and serving normal diets for **(18hrs)**

1. Infants

2. Preschool Child

3. School going Child

4. Adolescents

5. Adult/Labourer

6. Pregnant Woman

7. Lactating Mother

8. Elderly

TEXTILE SCIENCE

CORE
THEORY-7

Course Code: HS5CRT07

Teaching Hours: 3 hours/week (Per Sem: 54)

Credit:3

Objectives

- To gain knowledge about Textile fibres and their uses.
- To develop an understanding about various kinds of traditional and modern fabrics, their structure and the utility.
- To impart knowledge about Textile dyeing and printing.
- To develop skill in understanding textiles available in the market.

Course Content:

Module I: Study of Fibres (14hrs)

Definition, primary, secondary and miscellaneous properties and classification. Production, properties and uses of Textile fibres- cotton linen, wool, silk, rayon, nylon, and polyester. A brief introduction to jute, bamboo, spandex and organic cotton. Methods of identification of textile fibres- visual test, microscopic test and burning test.

Module 2:Study of yarns (10hrs)

Definition, process of making fibre in to yarn-hand, mechanical-conventional-ring spinning, direct-open end spinning and chemical. Classification of yarns-Types -simple, complex, textured, bi-component, and blends, Characteristics of yarns -twist and count.

Module 3: Fabric structure (12hrs)

Weaving- Loom parts and its operations, a brief introduction to shuttle less looms-projectile, rapier and jet loom. Basic weaves- plain, twill and satin. Fancy Weaves-, jacquard, dobby, lappet, clip spot, crepe and double cloth. Characteristics of woven fabrics –warp and weft, grain, selvedge, thread count and balance. Other methods of fabric construction-knitting, felting, lace making, laminating, bonding, and braiding.

Module 4: Dyeing, Printing (10hrs)

Classification of dyes: Natural, artificial- acid, basic, disperse, vat, naphthol, pigment, sulphur, and mordant. Methods of dyeing-stock, yarn, piece, product, cross and union dyeing-Printing**:**-Direct- roller, block, screen and stencil . Resist- tie & dye, batik and Discharge.

Module 5: Fabric Finishes (8hrs)

Definition ,purpose, classification, and types-singeing, bleaching, mercerization, calendaring, shrinkage control, sanforizing, crabbing, beetling, sizing, weighting, shearing, fulling, schrienerizing, crepe, Special finishes-water proofing, flame proofing ,and anti bacterial finish.

New Trends in Textiles-Brief introduction to Technical textiles, medicinal fabrics, nano textiles and geo textiles.

Core Readings:

- Corbman.B.P. (2005). *Fibre to Fabric.*Singapore.:Mc.Graw Hills book.co.
- Kadolf S.J (2008) *Textiles*, Anne Langford, Prentice Hall
- Gokarneshan U (2005*) Fabric Sturcture and Design*, New Age International Publishers
- Well's K (2002) *Fabric Dyeing And Printing*, Conran Octopus
- Smith J.L (2006) *Textile Processing*, Chandigarh , Abhishek Publications
- Wingate (1978) *Textile Science and their Selection*, Prentice Hall.
- Dantygi S (2008) Fundamentals *of Textiles And Their care*, Orient Longman.

TEXTILE SCIENCE- PRACTICAL

Course Code: HS5CRP07

CORE PRACTICAL-7

Teaching Hours: 2 hours/week (Per Sem: 36)

Credit:1

1. Collection of different fibres (Cotton, Silk, Polyester, Nylon, wool and rayon)

   Testing of fibers: - Visual Inspection, Burning and Microscopic, 10 hrs

2. Fabric structure: Basic weaves- Collect samples for all the Basic weaves and their variations. Fancy weaves-Collect samples for (Pile, Dobby, Jacquard, Leno, Clip spot, Lappet and Double cloth) 12 hrs

3. Thread count :- Collect samples for low medium and high count fabric. 4 hrs

4. Prepare samples for Block, Batik and Tie & Dye (any two variations) 5hrs

5. Visit to Mills /Shops. 5 hrs

A record of the entire practical should be maintained.

EXTENSION EDUCATION

Course Code: HS5CRT08

CORE THEORY-8

Teaching hours:4hrs/week (Per sem: 72)

Credit: 4

Objectives

To enable the students to

- Understand the widening concept of extension
- Appreciate the role of extension, especially home science extension in community
- development.
- Orient students to the socio cultural and economic environment of rural, urban and
- tribal communities.
- Develop skill in planning, implementing and evaluating an extension programme.

Course Content

Module1: Extension Education (10 hrs)

Definition, meaning, need and objectives of extension in India, Difference between formal, informal and extension education. Role and qualities of an extension worker**.** Home Science extension education and its contribution towards the development of community

Module2: Community Development (10 hrs)

Community Development-definition .Objectives of community

development and extension programme in India.

Special features of rural, urban and tribal communities in India

Basic Rural institutions (Panchayats, cooperatives and schools) in Community Development

Leadership -Concept and definitions, types of community leaders-Professional leader and lay leaders; autocratic,democratic and lassiez-faire leaders

Methods of identifying community leaders. Leadership for community development

Module 3: Community Development set up (20hrs)

At the national, state, district, block and Village levels. Democratic Decentralization-Panchayathi Raj-meaning, set-up and functions.

Community Development Programmes and organizations in India-

Ongoing rural development programmes for women and children implemented by the Government of India-Development of Women and Children in Rural Areas (DWCRA), Integrated Child Development Service (ICDS) and Indira Mahila yojana (Swayam Sidha) .

Non-Governmental organization in community/rural development in India-

Central Social Welfare Board(CSWB), State Social Welfare Board(SSWB), Council for Advancement of People's Action and Rural Technology(CAPART) ,Self Help Groups (SHG).

Module4: Programme planning, implementation and evaluation in extension (12 hrs)

Objectives, principles and steps involved.

Plan of work- components of a plan of work, developing a plan of work, factors to be considered.

Implementation and evaluation- Methods and tools for evaluation

Motivation in extension education- types and techniques.

Module 5: Basics in Project report writing (20 hrs)

Research project – definition, importance of research . Types- survey and experimental. Selection of research topic. Research trends in Home Science

Tools for data collection- check list, rating scale, questionnaire, and Interview schedule.

Sampling techniques – definition, types –Random sampling- simple & systemic random sampling .

Non- random sampling- purposive, stratified, Convenience and snow ball sampling.

Tabulation – definition, parts of a table

Graphic presentation- line, bar, pie, pictograph

Components of a project report – Introduction, Review, Methodology, Results and Discussion, Summary and Conclusion in brief, References

Core Readings

- Reddy,A.[1987] .*Extension Education*. Bapatha, Andra Pradesh, India.: Sreelekshmi Press.
- Dahama, O.P., & Bhatnagar, O.P. [1988]. *Education and Communication for Development.* New Delhi. : Oxford and IBH Publishing Co. Pvt .Ltd.
- Patnayak, R. [1990*]*. *Rural Development in India*. New Delhi.: Vikas Publishing House.
- Jain Gopal, l.[1997].*Rural Develoment*. Jaipur.: Mangal Deep Publications.
- Waghmare, S.K .[1980]. *Teaching Extension Education*. Vallabha, Vidhya Nagar.: Prasant Publication .
- Supe,A.N.(1983).*An introduction to Extension Education.* Delhi.: Oxford IBH Publishing Company.
- Maimun, N. (2006).Understanding Extension Education .Delhi.: Kalpaz Publications.
- Devadas, R.P. (1980).*Text Book of Home Science. New Delhi.:* NCERT
- C.R. Kothari.(2004) .*Research Methodology, Methods and Tecniques*. New Delhi.: New Age International Publishers.
- R.T.Kumar. (2011).*Research Methodology*, A *Step-by –Step Guide for Beginners***.** New Delhi.**:** Sage Publishers.

Journals

- The Indian Journal of Extension Education .The Indian Society of Extension Education. Division of Agricultural Extension, IARI, New Delhi**.**
- Journal of rural development(JRD) , National Institute of Rural Development,Rajendranagar,Hyderabad.
- Kurukshetra.Ministry of Rural Development. New Delhi.

EXTENSION EDUCATION –PRACTICAL

Course Code: HS5CRP08

Teaching hours: 2hrs/week (Per sem: 36)

CORE PRACTICAL-8

Credit: 1

Course Content:

1 Extension Education **(**8hours)

Interview an extension worker to find out his/her role**.**

2. Community Development (8 hours)

1. Visit any one community organization (Panchayat/Cooperatives /School /Krishy Vigyan Kendra) to find out its role in community development and record the services rendered.
2. Interview a lay leader in a community and find out his/her role in community development.

3. Community Development Programmes and organizations in India (8 hours)

Observe the working of any one community development programme in your community and record its features.

4. Programme planning in Extension (5 hours)

Prepare a plan of work for any one community development programme with tools for evaluation.

5. **Basics in Project report writing** (7 hours)

1. Preparation of a sample check list, rating scale, questionnaire, and Interview schedule.
2. Select appropriate data from the subject related topic and prepare a sample line, bar, pie diagrams.

(All the topics should be related to Family and Community Science (Home Science). A record of the entire practical should be maintained.)

GENERIC ELECTIVE COURSE (GE)

GENERAL PSYCHOLOGY

Course Code: HS5GET01

CORE
GE-1

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives :-

- To understand the physiological basis of human behavior.
- To study the processes involved in sensation, attention and perception
- To understand role of motivation and emotion in shaping the behavior.
- To bring an awareness about the determinants of personality and the role of self esteem in molding the personality .

Module 1:-Psychology (3 hrs)

Definition, major subfields of psychology.

Module 2:- Biological Basis of behavior (16 hrs)

Nervous system- .neuron -structure , types & functions. Central nervous system- Brain & spinal cord – major parts and their functions. association areas . Hemisphere specialization . Peripheral nervous system.

Endocrine system - different exocrine &endocrine glands and their functions, endocrine glands Behaviour , Genetic inflence on behaviour.

Module 3:- Sensation , Attention & Perception (15 hrs)

Psychology of sensation – sensory process , principles of sensation. Traditional senses- vision, hearing, chemical senses, skin senses ,kinesthetic & vestibular senses.

Attention – definition, characteristics, types, determinants of attention.

Perception- definition, types, principles of perceptual organization, perceptual constancies, factors affecting perception. Errors in perception

Module 4:-Motivation, Emotion and Self esteem (10 hrs)

Motivation- definition, types of motives, Maslow's theory of motivation.

Motives and Behaviour.

Emotion- definition, components, characteristics and functions of emotion .

Changes in emotions- external, internal & psychological changes. Emotion & health.

Self – Esteem- definition, types , methods to improve self esteem.

Module 5:- Stress and copying Strategies **(8 hrs)**

Stress- Definition, Stressors –Definition, Types. Effect of Stress-Physical and psychological. Coping with stress.

Core Readings:

- Balachamdran **,**M.(2003) Psychology , Mannas Pub.
- Viswambharan,R.(20090.General Psychology, V.Pub.Ltd
- Minett ,P.(2005) . Child Care & Development, 5th Edn. John Murray Pub. Ltd

TRADITIONAL EMBROIDERIES AND TEXTILES OF INDIA

Course Code: HS5GET02

CORE
GE-2

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives

- To gain knowledge about traditional textiles and embroideries of Western region.
- To study the traditional textiles and embroideries of Southern region.
- To understand the traditional textiles and embroideries of Eastern region.
- To develop an understanding about the textiles and embroideries of Northern region.

Module I 12 hrs

History of Indian textile production.

Techniques of textile decoration- brief study on traditional woven fabrics, dyed fabrics, printed fabrics and embroidered fabrics.

Module II 15 hrs

Textiles of Western region- brocade weave, embroidery style, Mochi, Kutch work, appliqué, bead work, block Printing, screen Printing, Tie & Die-bhandini, laharia and patola.

Module III

Textiles of Southern region- Ikats, Kalamkari, Kancheepuram silk, fabrics of Kerala, Karnataka, Goa and Banjara Embroidery.

Module IV 15 hrs

Textiles of Eastern region- Dacca sarees, Baluchar buttedar, and Kanthas.

Module IV 12hrs

Textiles of Northern region- Brocades of Varanasi, phulkari, Kashmiri Embroidery, ChembaRoomals, chickan work, block Printing, Himrus, Amrus, pithani, pitabar, carpet & shawl weaving.

Core Readings:

- Shailaja N, 2001 *Traditional Ebroideries of India*.,2001 Mumbai APH Publishing
- Lanto Synge,1995., *Art of embroidery : History of style and technique*, Woodridge
- Mehta R. J., *Master pieces of Indian Textiles*

PHYSICAL FITNESS AND HEALTH MANAGEMENT

Course Code: HS5GET03

CORE
GE-3

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives;

To provide-

- General concept of fitness
- Knowledge regarding health and nutrition
- The importance of health management.

Module 1 Physical fitness and exercise (10 hrs)

Concept of fitness, types of fitness, importance of fitness, health concepts of physical

Fitness, performance related physical activity for developing physical components

Module 2 Nutrition and Health (10hrs)

Concept of food and nutrition, Balanced diet, vitamins, malnutrition and deficiency

Determination of calory intake and energy expenditure

Module 3 Health concepts of fitness (10hrs)

Definition and meaning of health, physical activity and health benefits.Effect of

Exercise on body systems –circulary, respiratory,endocrine,skeletal,muscular.

Module 4 Lifestyle diseases and its management (14hrs)

Modern life style diseases and hypokinetic diseases .prevention and management

Module 5 Nutrition for weight management (10hrs)

Body weight component and weight management, weight management throught life, weight imbalance

Exercise and leaness

Core Readings

- Corbin Charles .Beetal .C.A(2004) ,concepts of fitness and welfare Boston-MC Graw Hill
- Pur i k.chandra S.S.(2005)Health and physical education;Surgeet publications
- ACSM Fitness book, leisure press campaign;illions, 1996,Leisure press Canada http;www.pitt.edu./gsph home
- Kathleen Mahan;sylvia stump Food Nutrition &diet therapy,11th edition, saunders company (2004)
- Subhangini A Joshi,Nutrition and dietetics ,Tata Mc Graw –Hill Publishing company Limited(2010)

SEMESTER VI

FAMILY RESOURCE MANAGEMENT

Course Code: HS6CRT09

CORE THEORY-9

Teaching hours: 3hrs/week (Per Sem: 54)

Credit: 3

Objectives

- To create an understanding in the students about the principles of management and its application in the individual and family context
- To acquire scientific skills in the management of resources
- To recognize the significance of resource management and thereby improve the quality of life.
- To create awareness of consumer rights and the need for consumer education
- To recognize the importance of waste management.

Module 1: **Introduction to Management** (9 Hours)

Management Basics –Steps Involved in the Process of Management – Planning, organising, Controlling the Plan in Action and Evaluating. Decision Making –Role of Decision Making in Management, Steps in Decision Making, types. Methods of Resolving Conflicts. Motivating factors in management-Values, Goals and Standards, Stages of Life Cycle, Qualities of a Good Manager.

Module 2: Management of Human Resources (15 Hours)

Family Resources: Meaning and Classification, Characteristics of Resources, Factors Influencing Resource Management, Means to Optimize Satisfaction in Resource Management. Management of Time: steps in making time plan, Tools and Aids in Time Management - time norm, time cost, peak load, work curve, Leisure time and its utilisation

Management of Energy: Energy as Resource, Significance of Energy Management, Energy Requirements for Various Household Activities, Work Curve or production curve, Fatigue – Classification, Causative Factors and Alleviating Techniques, Work Simplification – Meaning and Techniques, Mundell's Classes Of Change.

Labour Saving Equipments - Principle, Use and Care of the Equipments Such as Cookers, Mixers and Grinders, Refrigerator, Washing Machine and Dish Washers.

Module 3: **Management of Non-human Resources** (12 Hours)

Management of Money: Family Income as a Resource – Types of Income, Guidelines in money management-Income Profiles; Methods of handling income, Family Budget – Types of Budget, Steps in Making Family Budget, Engel's Laws of Consumption ; Account keeping, Financial Records – Types, Purpose and Advantages ; Savings and Investments – Meaning, Saving Institutions and Schemes, Supplementing family income, Family Credit – Types, Sources, Use and Misuse.

Module 4: Energy conservation and waste management (6 Hours)

Techniques for Conservation of household fuel, Biogas, solar energy, windmill.

Waste Management : Types of Domestic Waste, Principles of Waste Management, Disposal of Waste-Landfill, incineration, composting, vermin-composting. 6 R'S of Waste Management-Refuse, reduce, reuse, recycle, recover and rot.

Module 5: Consumer Education (6 Hours)

Consumer Education – Meaning, Consumer Problems, Rights and Responsibilities of a Consumer, Consumer Aids, Consumer Protection, Consumer Redressal Procedure and Better Buying Practices.

FAMILY RESOURCE MANAGEMENT –PRACTICAL

CORE PRACTICAL 9

Course Code: HS6CRP09

Teaching hours:2hrs/week (Per sem: 36 hrs)

Credit:1

Course Content

Module1: Management of Time and Energy (12 hours)

Time schedule: Preparation of time plan for college girl / homemaker and its evaluation, Work study: Determination of working height in vertical and horizontal planes.

Module 2: **Management of money and material resources** (10 hours)

Budget Planning - preparation of a model family budget for your family / budget suitable for various categories.

Energy Conservation - Visits to organizations/institutions involved with Alternate energy programmes, Study of Devices/ Techniques for Conservation of Energy / Renewable Energy Devices (Solar Devices and Biogas)

Waste Management - Study of waste management practices in your house/locality, Development of an object from household waste.

Module 3: Consumer Education (4 hours)

Development and evaluation of Labels / Advertisements for consumer products, Preparation of a consumer complaint for any consumer product

Module 4 : Event Management (10 hours)

Planning, organizing, implementing and evaluating a group activity (Party/Exhibition/ tour)

Or Residence stay for a week incorporating principles of management

(A record of the entire practical should be maintained)

Core Readings

- Deacon R.E. and Firebaugh F.M.(1998) *Family Resource Management- Principles and application*. N. Delhi.: Roy Houghton Mifflin Company,
- Gross, I.H. and Crandall, E.H. (1967). *Management for Modern Families*. N. Delhi.: Sterling Publishers Ltd.,
- Moorthy G. (Ed.). (1985). *Home Management*. N. Delhi.: Arya Publishers,
- Mullick, P. *Text book of Home science*.Ludhiana.: Kalyani Publishers,

- Nambiar, R. K. *Text book of Environmental Studies*. New Delhi. SCITECH Publication,
- Nickell, P and Dorsey, J. M. (1997). *Management in Family Living*. Bangalore.: Wiley Eastern Ltd.,
- Swanson S.S. (1981).*Introduction to Home Management*. N. York.: McMillan Publishing Company,
- Varghese, M. A, Ogale, N. N and Srinivasan, K. (2001). *Home Management*. New Delhi. New Age International (P) Ltd.
- Varghese, M.A. *Household Equipment Manual*, S.N.D.T Women's University.

CLINICAL NUTRITION AND DIETETICS

CORE
THEORY-10

Course Code: HS6CRT10

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives:

- To impart knowledge in the clinical nutrition.
- Prevention, dietary management and diet counselling in common degenerative disorders.
- To understand the consequences of nutritional problems in the society.

Course Content

Module 1: Concepts of Dietetics (6 hours)

a. Purpose and Principles of Therapeutic diets.
b. Definition of Nutritional care Process and Team Approach to nutritional care.
c. Role of Dietitian

d. Classification of Therapeutics diets.

1. Progressive diets – clear fluid, full fluid, soft and regular
2. Special feeding methods - tube feeding, parenteral feeding.

Module2:Nutritional Management of common disorders (8 hours)

Aetiology, Clinical features and Nutritional Management of the following:

a) Short term and long term Fever: Typhoid, Tuberculosis and HIV / AIDS)

b) Gastrointestinal disorders: Ulcer, Constipation, Diarrhoea

Module 3: Nutritional Carein Weight Management, Diabetes Mellitus and Coronary heart diseases (14 hours)

Aetiology, Clinical features, Diagnosis, Complications and Nutritional life style modifications and management in:

a) Weight Management: 1) Overweight and obesity2) Underweight

b) Diabetes Mellitus: Type 1 and Type 11

c) Coronary Heart Diseases: Atherosclerosis and Hypertension

Module 4: Dietary Management of Liver, Renal disorders and Cancer **(**12 hours)

Aetiology, Symptoms and dietary Management of:

a) Liver Diseases: Infective Hepatitis, Cirrhosis

b) Renal Disorders: Acute and Chronic Nephritis, Nephrotic Syndrome

c) Cancer

Module 5: Nutritional Problems of the community (14hrs)

A) Prevalence, Causes, Consequences, Prevention and Control of:

1.PEM

2. Iodine Deficiency Disorders

3. Iron deficiency Anaemia

4. Vitamin A deficiency

Core Readings

- Bamji MS, Krishnaswamy K and Brahmam GNV (2009). *Textbook of Human Nutrition*, 3rd Edition.:Oxford & IBH Publishing Co Pvt Ltd.

- Joshi SA.(2010). *Nutrition & Dietetics*. 3rd Edition.: Tata McGraw- Hill Education Pvt. Ltd.
- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S. (1997). *Textbook of Nutrition and Dietetics.*:Phoenix Publishing House Pvt. Ltd.
- Mahan L K and Escott-Stump S. (2008). *Krause's Food & Nutrition Therapy*, 12th ed. Saunders-Elsevier.
- Stacy Nix. (2009). *William's Basic Nutrition and Diet Therapy*, 13th Edition.: Elsevier Mosby.

CLINICAL NUTRITION AND DIETETICS (PRACTICALS)

Course Code: HS6CRT10

CORE PRACTICAL-10

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 1

Course Content

1. Calculation of BMI using height-weight measurements
2. Preparation of Therapeutic Recipes (8 Hours)

   Types of Therapeutic Diet Normal

   Soft, Fluid – Full Fluid and Clear Fluid Diets (18 hours)
3. Diet plan for

   Fever patient (Typhoid/Tuberculosis (28 Hours)

   Cancer- breast cancer

   Diabetic Mellitus

   CHD (Atherosclerosis)

   Peptic Ulcer

   Hepatitis

   Cirrhosis

   Nephritis

   Obesity

   Under weight

   PEM (Kwashoiorkor)

   Iron Deficiency Anaemia
4. Visit to a feeding programme / Diet clinic. (4 Hours)

   (A record of the entire practical should be maintained)

FASHION DESIGNING AND APPAREL PRODUCTION

Course Code: HS6CRT11

CORE
THEORY-11

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives

- To gain knowledge in fundamentals of fashion designing
- To understand the pattern making process
- To gain practical knowledge in designing garments for different figure types
- To understand the organisation of garment industry

Module I: Introduction to Fashion (10hrs)

Terms related to the fashion industry, Fashion evolution – Fashion cycles, consumer groups in fashion cycles – fashion leaders , fashion innovators, fashion motivation , fashion victim, fashion victims , Fashion followers .Adoption of Fashion – trickle down , trickle up and trickle across theory .Fashion forecasting .Principles and factors influencing fashion.

Module 2: Fundamentals of Fashion Designing (12hrs)

8 -head theory. Basic body shapes.Design- definition and types – structural and decorative design, requirements of a good structural and decorative design. Elements of design – line, shape or form, colour , size and texture. Principles of design- balance – formal and informal, rhythm- through repetition, radiation and gradation, emphasis, harmony and proportion.

Module 3: Introduction to Pattern Making (12hrs)

Body measurement –importance, guidelines for measuring, ladies and childrens measurements. Pattern making –method of pattern making – Drafting -merits and demerits. Pattern details, pattern alteration-lengthening and shortening of bodies block, skirt and sleeve block. pattern layout, preparation of fabric for cutting.

Module 4: Garment Construction. (10hrs)

Parts and functions of a single needle machine, tools and equipments used for sewing.

preparation of fabric for cutting. pattern layout, marking, cutting, stitching and finishing of garments.

Module 5: Introduction to Garment industry (10hrs)

Functions of various departments in garment industry- design department, marketing department, finance department, purchasing department, production department and operation department, Marketing - definition, marketing mix, Merchandising- definition, role of merchandiser.

Core Reading

- Mathews, M., (2008) *Practical Clothing Construction, Part II*, Bhattaramís Reprographics (P Ltd, Chennai.
- Mullick. P.,(2002) *Garment Construction Skills*, Kalyani Publishers, New Delhi.
- Sumathy, G.H (2002) *Elements of fashion and Apparel Design* New Age International (p) Ltd, New Delhi
- Heannette. A., Jarnow et-al., *Inside the Fashion Business*-, macimilan Publishing Company, New York.
- Frings, G.S., *Fashion –From concept to consumer* –, 6th edition, prentice Hall (1999). 3. Inside the fashion business –Bennett, Coleman & o ,Mumbai(1998).
- Cooklin, G., *Garment Technology for Fashion Designers*, Blackwell Science Ltd
- Armstrong, H. J (1997) *Pattern making for Fashion Design*, Harper& Row publication
- Riter. J. (1998) *Hand book for Fashion Designing*, Best Drafting Techniques, Mital publication.
- Cooklin .G.,(1988) *Introduction to Clothing Manufacture*, Blackwell Science, New Delhi
- Ireland P.J. (2007) *New fashion Figure Templates*, Anova Books Co. Ltd, London
- Narang. M(2007). *Fashion Technology Hand Book*, Asia Pacific Business Press, New Delhi
- Zarapkar K.R.(2008) *Zarapkar System of Cutting,* Navaneet Publications India Ltd., Gujarat.
- Dickerson. K.G ((2009) Inside the fashion Business.

FASHION DESIGNING AND APPAREL PRODUCTION-PRACTICAL

Course Code: HS6CRP11

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 1

CORE PRACTICAL-11

Course Content

Module 1: Garment Designing (10hrs)

a. Illustrating fashion figure - 8 heads female
b. Sketching of formal wear, party wear and suitable for children and women on croquis (two styles each)

Module 2: Sewing Techniques (20hrs)

c. Basic Hand Stitches - Basting, overcasting, hemming.
d. Hand embroidery stitches – minimum 5 nos.
e. Seams – Plain seam, French seam, flat fell seam, top stitched seam, piped seam.
f. Seam finish – double stitched
g. Fullness

f. Gathers – gathering by hand, gathering by machine, gathering by elastic

g. Pleats- Knife pleats, box pleats, inverted pleats.

h. Darts and tucks– single pointed dart, double pointed dart, pin tucks
i. Placket – One piece placket, two piece placket
j. Bias and its application - joining bias, bias facing, bias binding, shaped facing
k. Hems – Narrow machine stitched hem, stitched and turned hem
l. Fasteners – Button and button hole, press buttons , hook and eye

Module 3: Garment Construction (24hrs)

h. Preparation of paper patterns and construction of the following
    1. A-line frock with any type of collar and sleeve for a preschool child.
    2. Salwar and Kameeze/ Churidar and Kurtha for an adolescent girl.

COMMUNICATION IN EXTENSION EDUCATION

Course Code: HS6CRT12

CORE
THEORY-12

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives

To enable the students to

- Understand the process of communication in Home Science Education
- Sensitize students towards identifying materials and methods for effective
- Communication
- Develop skills in preparing and using audio – visual aids in extension work.
- Familiarize with the latest technologies in communication.
- Organise programmes for women and children.

Course Content:

Module 1: Communication (10hrs)

Definition, functions, elements, process and problems..

Four levels of communication-Intrapersonal, Inter personal, Group and Mass level.

Importance of communication in Home science education

Module 2: Teaching and learning in extension (8hrs)

Elements of teaching-learning situation, Criteria for effective extension teaching, steps in extension teaching. Concept of extension education process.

Module 3: Communication Methods (Methods of community outreach) (11hrs)

classification according to form and use.Individual,Group and Mass methods. Advantages and limitations of each method. Factors guiding the selection and use of methods.

Module4: Audio-visual aids (15hrs)

Definition and role of audio-visual aids in Home Science teaching. Classification of audio-visual aids-cone of experience-merits and demerits. Different types of some of the visual aids-leaflet, pamphlet, posters, different types of charts, flannel graph, flip chart , flash cards and mobiles. A brief study on Out door mass media-exhibitions, fairs, street drama and Folk Media-

(Traditional)-puppet show, folk songs, folk dances, drama etc. Characteristics and use Factors guiding the selection and use of audio- visual aids

Module 5: Recent trends in communication (10 hrs)

ICT tools – print and electronic media, Method to write simple articles in a news paper, script writing for TV and Radio programmes in Home Science extension. Computer based technologies-email, mobiles, social networking, blogs, pod casts, video sharing, video and tele conferencing.

Core Readings

- Dubey, V.K and Bishnoi I (2009). "*Extension Education and Communication*", Delhi. New AgeInternational Pvt Ltd Publishers,
- Dahama.O.P and Bhatnagar .O.P [1988]. *Education and Communication forDevelopment,* New Delhi. Oxford and IBH Publishing Co.Pvt .Ltd
- Andal Nand Rangarajan,C .(2005)."*Communication theories and models"*.New Delhi.:Himalaya Publishing House,.
- Aggarwal, R. (2008). *"Communication- today and tomorrow*", New Delhi.: Sublime Publications,.
- Kumar, K,J. (2008). *"Mass Communiucation in India".* New Delhi.:Jaico Publishing House.
- Aggarwal, R .(2008*). "Effective Communication Skills*". New Delhi.: Sublime Publications.
- Shinde, P.S .(1997). *"Communication patterns in Extension Education*", Jaipur.: Rawat Publications.
- Pamar&Sryam. (1976). *Traditional folk media in India*.New Delhi.:Geka books.

Journals

- Social Welfare, Central Social Welfare Board, Samaj Kalyan Bhavan, B-12 Tana Crescent, Institutional Area, South of IIT, New delhi-110016
- Indian Journal of extension, The Indian Extension Education, Division of Agricultural Extension IARI, New Delhi-110012.
- Journal of Educational Research and Extension, Sri Ramakrishna Mission Vidyalaya College of Education, Coimbatore, Tamil Nadu, India.

COMMUNICATION IN EXTENSION EDUCATION-PRACTICAL

Course Code:HS6CRP12

CORE
PRACTICAL - 12

Teaching hours: 2hrs/week (Per sem: 36)

Credit: 1

Course Outline

Module I: Communication (2hrs)

Illustrate the process of communication/ Four levels of communication

Module 2: Teaching and learning in extension (2hrs)

Illustrate the steps in extension teaching / Concept of extension education process.

Module 3: Communication Methods (10hrs)

Write a report of an exhibition /fairs/street drama you observed.

Select a theme based on the content of home science and write a folk song

Module 4: Audio-visual aids (10 hrs)

Collection and evaluation of visual aids

Preparation of visual aids. (Leaflet, pamphlet, poster and two types of charts.)

Module5: Recent trends in communication. (12 hours)

Review of media on selected development issues and report its characteristics (a news paper article, Radio and TV message**)**

Write a simple news article for a news paper.

Write a simple script on selected developmental issue connected with Home Science for Radio and TV programme. (For 5 minutes)

(All topics should be related to Family and Community Science (Home Science).A record of the entire practical should be maintained.)

CHOICE BASED CORE COURSE (ELECTIVES)

FOOD SAFETY

Course Code: HSCBT01

ELECTIVE

THEORY-1

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives:-

The course will enable the students to:

- know the importance of quality assurance in food industries
- know the various tests and standards for quality assessment and food safety
- Know various tests used to detect food adulterants
- Be familiar with the fundamentals that should be considered for successful quality
- control programme developments in food safety and quality systems

Course Content

Module 1: Introduction to quality assurance and food safety assurance (8 hours)

Current concepts of quality control Food quality, Quality control- parameters followed in quality control, important considerations, principles of quality control

Module 2: Food safety (10 hours)

Food Sanitation and Hygiene-

• Water- potable water, sources of contamination, treatment of water

• Food – Food handling and the sources of contamination, safe food practices (buying food, storing food, preparing food, cooking food, serving food)

• Practical rules for food sanitation

Module 3: Food Toxins/Contamination of food (12 hours)

Main Groups of Food Toxins – prevention/control

Classification of toxic chemicals in foods-

Natural toxicants in foods – (i)Toxic amino acids , (ii) Toxic alkaloids, (iii) Cyanogenic glycosides,(iv) Trypsin inhibitors, (v) Haemagglutinins, (vi) Flatulence factors

Natural toxicants entering through contaminants:- (i) Plant origin, (ii)Microbial Origin, (iii) Biological origin

Chemical toxicants of external origin;- (i)Toxic metals, (ii)Residues of pesticides and Agrochemicals, (iii) Contamination from processing practices, (iv) Contamination from packaging materials (v) Accidental contaminants , (vi) Contaminants from Environment.

Module 4: **Food borne diseases /illness : (10 hours)**

Causes, symptoms and control

Food borne infections:- (i) Bacterial Diseases- Typhoid fever, Salmonellosis (ii) Viral diseases:- Viral hepatitis, Gastroenteritis and (iii) Infections due to parasites;- Taeniasis, Amoebiasis, People risk of food borne illness

Module 5:- Food Adulteration and Labelling, Food Laws and Food standards: (14 hours)

Food Adulteration and Labelling

Common Adulterants, Effects of Food Adulteration, simple tests to detect adulterants in foods, preventition of food adulteration, Nutritional Labelling (Importance, effective labelling)

Food Laws and Food standards

(i) International food laws and standards:-Codex Alimentarius, Food, Drug and Cosmetic Act (ii) Indian Food laws and standards: - (a) Compulsory standards-Prevention of Food Adulteration Act, 1954 (PFA), Essential commodities Act, 1954 – brief listing of the Control Orders under this Act Viz. The Fruit Products Order, 1955(FPO), Meat Products Control Order, 1973, Milk and Milk Products Order, 1992, Solvent extracted oils, De-l oiled meal and Edible Flour Control Order1967 and Vegetables Products Control Order,1976; and Standards on weights and measures (Packaged Commodities) Rules, 1977. (b) Voluntary Standards- Bureau of Indian Standards (BIS) ,The Agricultural Products (Grading and marking) Act, 1937, FSSAI, HACCP

Core Readings

- Kalia M. (2002), Food Analysis and Quality Control, Kalyani Publishers, New Delhi.
- Frazier,W.C. and Westhoff, D.C.,(2008), Food Microbiology, Fourth Edn., Tata McGraw-Hill Publishing Co.Ltd, New Delhi
- Joshi, S.A.(2010), Nutrition and Dietetics, Third Edn, Tata McGraw-Hill Publishing Co.Ltd, New Delhi
- Paul Insel, Don R, Kimberley Mc and Melissa B., (2014), Nutrition, Fifth Edn, Jones & Bartlett Learning Company, Burlington.

- Sari E., (2006), Nutrition in Public Health, a handbook for developing programs and services, Second edn, Jones and Bartlett publishers, Sudbury.
- Potter,N.N and Hotchkiss, J.H,(1996), Food Science, Fifth Edn, CBS Publishers, New Delhi.
- Mudambi, S.R and Rajagopal, M.V. (2001), Fundamentals of Foods and Nutrition, New Age International Publishers, New Delhi
- Srilakshmi B. (2008), Food Sciene, New Age International Publishers, New Delhi
- Marwaha, K (2007), Food Hygiene, Gene-Tech Books, New Delhi.
- Journal of Food Science and Technology, Association of Food Scientists and Technologists CFTRI, Mysore.

EARLY CHILDHOOD CARE AND EDUCATIUON

ELECTIVE THEORY-2

Course Code: HSCBT02

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives :

- To become aware about the role of environmental stimulation for the all round development of children .
- To know the different early stimulation programmes
- To create a positive attitude about the Care of children with special needs.
- To make the youth aware about the safety issues of children
- To inspire the students with the pros and cons of pre-school education.

Module 1: Early stimulation for children (14 hrs)

Definition, role of environmental stimulation for the all round development of children. Environmental stimulation for physical & motor, intellectual, emotional, social & language development. (Marshall & Stewart (2001)

Module 2. Looked after children (10 Hrs)

Residential care for children. foster care. Adoption. day care provisions. Care of children with special needs (Marshall & Stewart (2001),Minet (2005)

Module 3. Child safety **(10 Hrs)**

Common accidents during childhood years. Safety measures inside & outside the home.

Safety issues -safety of child related products, toy safety, safety of children's nightwear, personal safety.

Module 4: Early childhood education. **(20 Hrs)**

Preschool education- definition, objectives, importance, objectives, types.

Pre-school programme – definition, principles in programme planning, short & long term planning,daily programme

Module 5: Pre school organization **(5 Hrs)**

Physical arrangement, equipment needed, maintenance of records, preschool personals, home – school relationships

Core Readings

- Marshall, J and Stuart S (2001) Child Development, Heinemann Educational Pub.
- Minett ,P.(2005) . Child Care & Development, 5th Edn. John Murray Pub. Ltd.
- Suriakanthi,A.(2009). Child Development – An Introduction,4th Edn. Kavitha Pub

NEW TRENDS IN FAMILY AND COMMUNITY SCIENCE

ELECTIVE THEORY-3

Course Code: HSCBT03

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives

- To make students aware about the new developments in Family and Community Science.
- To know the new research results in Human Development.
- 3.To give an awareness on recent developments in textiles and clothing.
- 4.To enlighten the students with new communication techniques and Nutritional advancement
- 5.To inspire the students with the new trends in housing and interior decorations

Course Content

Module – 1 New trends in Human development (12hrs)

Management of differently abled children, Life skill education, guidance and counseling in schools. career clinics, school counselors, special and innovative approaches with children, Transactional analysis, play therapy, music therapy, art therapy, biblio therapy, horticultural therapy, yoga and meditation, stress management techniques, aptitude tests, performance tests, advances in detection and assessment of problems, stem cell detection and therapy, baby friendly hospitals, neonatal clinics, mental health clinics, adolescent clubs, RCH, adolescent health, youth, adult and geriatric health care.

Module – II: New trends in Textiles (10hours)

Textile fibres- coolmax, thermostat, lycra, oasis fibre, tactel, lyocell, lencell. An introduction to Nano Textiles, microtextiles, technical textiles, smart textiles, agro textile, geo textiles and medical textiles. Eco-friendly production and processing to textiles with special reference to organic and naturally coloured cotton, natural dyes and detergents etc. Indian and International environmental legislations.Eco labelling.

Module – III: New trends in Communication (10 hours)

Information kiosks, interactive video and tele conferencing, tele text, virtual learning, tech talks, pod cast, multimedia presentations, smart classes, e-learning and e-resources. Cyber Extension – definition, advantages and limitations.

Module – IV Nutritional Advances (10 hours)

Nano foods, Zero calorie foods, GM foods, Fortified foods, Nutrigenomics, Nutrigenetics, Neutraceuticals. Defence, High altitude nutrition, Space and Sports Nutrition.

Module – V New trends in Resource Management (12 hours)

Modular kitchen, ergonomic furniture's for home, school, institutions and community. Modern trends in landscaping, window decorations and furnishings and accessories. Recent trends in housing – green housing, geriatric housing. Eco concerns and Management**:** Pollution- soil, land, air, water, noise. Waste- Unscientific Agricultural practices- Green house effect, global warming, major health hazard. Water management, Environmental protection- practices and programmes, Organic farming, safe food, environmental protection programmes

Core Readings/References

All the relevant Resources from periodicals, Journals, Website, News papers etc.

MODEL QUESTION PAPERS

SEMESTER I

BLUE PRINT

HUMAN PHYSIOLOGY AND MICROBIOLOGY

Corse Code : HS1CRT01

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	7	2	2	1	-	
2	7	2	1	1	1	
3	7	2	2	1	1	
4	8	3	2	1	1	
5	7	3	2	1	1	
Total	**36**	**12**	**9**	**5**	**4**	

HUMAN PHYSIOLOGY AND MICROBIOLOGY

Corse Code : HS1CRT01

Time: Three Hours **Maximum: 80 Marks**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. List out different blood groups
2. Life span of RBC.
3. What is digestion?
4. List out functions of RBC
5. Define flagellum.
6. What is active immunity?
7. Define blood pressure
8. List out functions of kidney
9. Classification of micro organism
10. What is hypoxia
11. Define respiration
12. Write on disorder of pituitary **(9x2=18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. Write on systemic and pulmonary circulation
14. Explain the different culture media.
15. Describe the structure of digestive tract.
16. Explain the factors affecting the growth of microorganisms
17. Draw and label a bacterial cell
18. Explain the composition of blood
19. Write on viral infections
20. Explain the importance of moulds
21. Brief on the structure of uterus. **(6x4=24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks.

22. Explain different methods of sterilization and disinfection
23. Write on mechanism of urine formation
24. Describe the structure of uterus and its function
25. Discuss the immunization followed for various diseases
26. Discuss the morphology and economic importance of yeast. **(6x3=18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks.

27. Describe the structure of heart and cardiac cycle
28. Discuss bacteria under the following heads:
    a. Types
    b. Structure
    c. Economic importance
29. Write on natural defences of the body.
30. Explain the functions and mechanism of coagulation of blood **(10x2=20 marks)**

SEMESTER II
BLUE PRINT

FOOD SCIENCE

Corse Code : HS1CRT02

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	6	2	1	1	-	
2	6	2	2	1	1	
3	11	3	2	1	1	
4	11	3	3	1	1	
5	2	2	1	1	1	
Total	**36**	**12**	**9**	**5**	**4**	

FOOD SCIENCE

Corse Code : HS1CRT02

Time: Three Hours **Maximum Marks: 80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. What are organic foods?
2. Write a note on chemical preservatives.
3. Write a note on marinated foods
4. What is lathyrism?
5. Write a note on cardamom?
6. What are designer eggs?
7. What are essential amino acids?
8. What is whey protein?
9. What is meant by blanching?
10. What is syneresis?
11. Write a note on carotenoids
12. What is meant by homogenized milk? **(9× 2=18 marks)**

Part B (Paragraph Answer Questions, 100 words)
Answer any six questions.
Each question carries 4 marks

13. What are genetically modified foods? Give two examples.
14. Discuss the effect of acid on vegetable pigments
15. Bring out the advantages of microwave cooking.
16. What are complete proteins?
17. Explain the structure of a starch granule.
18. Write a note on Rancidity.
19. What are the causes of spoilage of fish?
20. Write a short note on proteins present in milk.
21. Discuss the merits of parboiling **(6 × 4=24 marks)**

Part C (Short essay, 150-200 words)
Answer any *three* questions
Each question carries 6 marks.

22. Explain any three dry heat methods of cooking.
23. Give an account of protein sources.
24. Enumerate importance of food preservation
25. Discuss on the structure and types of meat
26. Comment on the nutritive value of pulses **(3 × 6=18 marks)**

Part D (Long essay Questions, 400 words)
Answer any *two* questions
Each question carries 10 marks.

27. Describe the stages of sugar cookery with suitable examples of recipes prepared at each stage.
28. Describe the Principles and Methods of food Preservation.
29. What happens when cut fruits and vegetables are exposed to air? Explain the ways in which you may prevent this.
30. Draw the structure of an egg and name the components. Discuss the nutrients present in egg

(2 ×10=20 marks)

SEMESTER III
BLUE PRINT

HUMAN DEVELOPMENT

Corse Code : HS3CRT03

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	8	2	2	1	1	
2	15	3	2	1	1	
3	15	3	1	1	-	
4	8	2	2	1	1	
5	8	2	2	1	1	
Total	**54**	**12**	**9**	**5**	**4**	

HUMAN DEVELOPMENT

Corse Code : HS3CRT03

Time :- 3 hours **Max. marks:- 80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Define sociometry and case study
2. What you mean by conception
3. List four adjustments the neonate has to make
4. Differentiate extrovert & introvert
5. Give four needs of the children
6. Bring out the stages of intellectual development
7. Give the normal age of cooing , sitting without support, standing with support and climbing steps by creeping.
8. Give two examples each for fine and gross muscular skills
9. What you mean by anorexia nervosa
10. Bring out the physical changes during puberty
11. Define habit. Name two good habits the children should develop.
12. How solitary play differ from cooperative play **(9x 2 =18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. What are the different types of observation
14. Bring out the different stages of development
15. Explain any two rights of children
16. Describe the appearance of a new born child.
17. Trace the language development of a child from birth to 1 year
18. Explain the nature of relationship between an adolescent and the parents
19. Bring out four reasons for depression in adolescents
20. What are the essentials for discipline
21. Explain indigenous toys with examples **(6x 4 =24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Describe the heredity environment interaction with examples
23. Explain the dietary care needed for a pregnant women
24. Give the characteristics of children's emotions
25. Describe any three issues faced by the today's adolescents
26. Bring out the principles of Habit formation **(3x 6 =18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Define projective techniques. Explain the different projective techniques used in children.
28. Describe pre-natal development
29. What are the possible causes and consequences of substance abuse in adolescents.
30. Explain how play helps in the all round development of a child **(2x 10 =20 marks)**

SEMESTER IV
BLUE PRINT

FAMILY DYNAMICS

Corse Code: HS4CRT04

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	8	1	1	1	-	
2	12	3	3	1	1	
3	20	3	3	1	1	
4	7	2	1	1	1	
5	7	3	1	1	1	
Total	**54**	**12**	**9**	**5**	4	

FAMILY DYNAMICS

Corse Code : HS4CRT04

Time :- 3 hours **Max. marks:- 80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Define marriage
2. What you mean by responsible parenthood
3. List two functions of family
4. bring out two advantages of modern family
5. what you mean by lone parent family
6. How divorce differ from desertion
7. Who are gifted children
8. Name any four behavior problems shown by the pre school children
9. Give two purposes of sex education
10. What is population education
11. What you mean by pakal veedu
12. Mention any two physiological changes during old age **(9x 2 =18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. Describe any four functions of marriage
14. Bring out four reasons for lone parenthood
15. Explain two issues on child development due to maternal employment
16. Highlight the point "Family – the basic social institution"
17. How the sudden death of a father bring out crisis in the family
18. Explain children with special needs .
19. Bring out the causes of any two behavior problems
20. List the problems of overpopulation
21. Highlight the different needs of the elderly **(6x 4 =24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Evaluate the care of the aged in the home today
23. Explain the possible ways imparting sex education to a school going child
24. Explain three factors leading to successful married life
25. Briefly describe reconstituted families
26. What are the ill effects of alcoholism in a family **(3x 6 =18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Describe the influence of electronic media in a family
28. Bring out the consequences of & coping strategies of any two family crisis
29. Explain the different methods of family Planning
30. Explain how an adolescent girl can help to minimize the problems of the elderly

(2x 10 =20 marks)

SEMESTER V
BLUE PRINT

INTERIOR DECORATION

Corse Code : HS5CRT05

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	12	3	2	1	1	
2	9	2	1	1	1	
3	6	2	1	1	-	
4	15	3	3	1	1	
5	12	2	2	1	1	
Total	54	12	9	5	4	

INTERIOR DECORATION

Corse Code : HS5CRT05

Time: 3 hours **Maximum marks:80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Define texture
2. What is hue?
3. Analogous colour harmony-define
4. Give any two objectives of landscape gardening
5. Define carpets
6. Give the characteristics of horizontal line
7. Brief about ikebana
8. Define direct lighting
9. What is bonsai?
10. Define modular kitchen
11. Define emphasis
12. Task lighting-discuss **(9X2=18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. What secondary colours
14. Write down the qualities of soft texture

15. List out the advantages of using carpets
16. List out garden components
17. Illustrate U shape kitchen
18. Brief on multipurpose furniture
19. Illustrate any three styles in flower arrangement
20. Abstract design-define
21. Explain the role of natural lighting **(6X4=24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Describe types of lighting?
23. Explain the types of balance
24. Suggest colour schemes for different rooms
25. Illustrate basic styles in flower arrangement
26. Illustrate and explain work triangle **(3X6=18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Explain the factors to be considered while arranging furniture
28. Describe on Colour harmony
29. Discuss on the principles of landscape gardening
30. Explain elements of design **(2X10=20 marks)**

HUMAN NUTRITION AND BIOCHEMISTRY

Corse Code : HS5CRT06

BLUE PRINT

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	2	2	1	-	-	
2	4	2	2	1	-	
3	15	2	2	1	1	
4	15	3	2	2	1	
5	18	3	2	1	2	
Total	**54**	**12**	**9**	**5**	**4**	

HUMAN NUTRITION AND BIOCHEMISTRY

Corse Code : HS5CRT06

Time: 3 hours **Maximum marks:80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Define nutrition.
2. BMR
3. Functions of Carbohydrates
4. IDD
5. What is Glycemic Index?
6. What are the factors affecting RDA?
7. symptoms of Scurvey
8. write on composition of lipids
9. write on Physiological changes during pregnancy
10. List out the fat soluble vitamins
11. Define RDA.
12. List out any four vitamin A rich foods **(9X2=18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. State the factors influencing BMR
14. Write on deficiency and requirements of iron
15. Explain on school lunch programme
16. Explain on functions of carbohydrates
17. Discuss on Protein turnover
18. Discuss on BeriBeri
19. Write on nutritional requirement in infancy
20. Explain on nutrition related problems in preschool age
21. What are the different grades of malnutrition ? **(6X4=24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Briefly on Nutritional requirement, dietary guidelinesin school going children
23. Explain on Functions and requirements of potassium
24. Explain on advantages of breast feeding.
25. Factors affecting food intake and nutrient usein old age
26. Explain on Metabolism of lipids **(3X6=18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Explain on Digestion, Absorption and Metabolism of carbohydrate
28. Describe on Assessment of nutritional status
29. Discuss on Define- weaning and types of supplementary Foods.
30. Functions, food sources, deficiency/toxicity and requirements of calcium **(2X10=20 marks)**

TEXTILE SCIENCE

Corse Code : HS5CRT07

BLUE PRINT

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	14	3	2	1	1	
2	10	2	2	1	-	
3	12	3	2	1	1	
4	10	2	2	1	1	
5	8	2	1	1	1	
Total	**54**	**12**	**9**	**5**	**4**	

TEXTILE SCIENCE

Corse Code : HS5CRT07

Time: 3 hours **Maximum marks:80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Define Fibre.
2. What is blending of fibres?
3. Give the microscopic structure of cotton.
4. Define spinning.
5. What are bi-component yarns?
6. What is thread count?
7. Give an account on braiding.
8. Write briefly on pile weave.
9. Write a note on union dyeing.
10. Give a short note on resist printing.
11. What are spandex textiles?

12. List out the importance of mercerization. **(9X2=18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. State the properties of silk.
14. Write a note on organic cotton.
15. Give an account on novelty yarn.
16. What is open end spinning?
17. Write on any two fancy weaves.
18. Explain felting.
19. Give an account on natural dyes.
20. State the importance of anti bacterial finish.

21. Write short notes on medicinal fabrics. **(6X4=24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Compare the properties of Rayon and polyester.
23. Give the classifications of yarn.
24. Outline the parts of a loom and the weaving operations.
25. Explain the stages of dyeing.
26. Elaborate on any two functional finishes. **(3X6=18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Cotton fibres are called the king of textile fibres .Justify.
28. Explain Basic weaves and their variations.
29. Write an essay on printing.
30. What are finishes? Explain any four basic finishes that can be applied on cotton.

(2X10=20 marks)

EXTENSION EDUCATION

Corse Code : HS5CRT08

BLUE PRINT

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	10	2	1	1	-	
2	10	2	1	1	1	
3	20	3	3	1	1	
4	12	2	2	1	1	
5	20	3	2	1	1	
Total	**72**	**12**	**9**	**5**	**4**	

EXTENSION EDUCATION

Corse Code : HS5CRT08

Time: Three Hours **Maximum: 80 Marks**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Mention the functions of plan of work.

2. Define extension education

3. What is leadership.

4. Brief on CAPART.

5. Write a note on Grama Sabha

6. Enumerate on Swayamsidha

7. Differentiate between audio aid and visual aid

8. Write the characteristics of role play.

9. Define research.

10. Sociometry.

11. Snow ball Sampling.

12. What do you understand by the term survey in research ? **(9 x 2 = 18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. What are the qualities of an extension worker ?.

14. Write on the objectives of community development.

15. What is the role of cooperatives in rural economy ?

16. Differentiate between a professional leader and a lay leader.

17. What are the objectives of programming planning in extension.

18. What are the peculiarities of DWCRA?

19. Compare the conditions of rural and tribal communities in India

20. Enumerate the characteristics of a Lassies – Faire leader. What will be the outcome of such kind of leadership

21. What are the different parts of a table ? **(6 x 4 = 24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Explain the role of extension worker in community development.

23. What are the different tools for data collection ?

24. Give any four methods of sampling

25. Give and account on basic rural institutions

26. Write briefly on basic rural institutions **(6x3=18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. What are the different components of a project report ?

28. Explain the role of Home Science Extension education in community development.

29. Elaborate on the characteristics of democratic decentralization

30. How will you plan implement and evaluate an extension program in a community

(10x2=20 marks)

GENERIC ELECTIVE COURSES (GE)

GE 1 GENERAL PSYCHOLOGY

Corse Code : HS5GET01

BLUE PRINT

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	3	1	1	-	-	
2	16	3	2	1	1	
3	17	3	3	2	1	
4	10	3	2	1	1	
5	8	2	1	1	1	
Total	**54**	**12**	**9**	**5**	**4**	

GENERAL PSYCHOLOGY

Corse Code : HS5GET01

Time: 3Hours **Maximum Marks : 80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Motion perception.

2. Attention Span

3. List major subfields of psychology

4. What is the function of adrenal gland?

5. Define facial expressions.

6. What is self actualization?

7. How does a hormone differ from neurotransmitters.

8. Difference between sensation and perception

9. Define the term “Stress and stressors”

10. What do you mean by intrinsic motivation?

11. What you mean by cofrontation?

12. What is synapse? **(9x2=18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. What is Behaviour.

14.Write short note on the utility of psychology.

15. Define a neuron and describe its structure and functions.

16. Distinguish between motivation and emotion.

17. Give an account of perceptual constancy.

18.Describe hormones and glands in relation to behavior.

19. Explain the various types of emotions.

20. Write about errors in perception

21. Bring out the physical effect of stress? **(6x4-=24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Differentiate between cerebral dominance and hemispherical specialization. Discuss the functions of each hemisphere of the human brain.

23. Discuss the various laws of perceptual organization.

24. Analyse the various factors influencing attention.

25. Explain the different methods of coping with stress .

26. Give an account of different types of self esteem. Suggest various techniques for an adolescent girl to enhance her self esteem. **(3x6=18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Describe how the endocrine system is related to human behavior

28. Give an account of the various sensations of human body

29. What is a motive? Explain the importance of biological motives in human life. What is the need –hierarchy theory of motivation?

30 Explain the different methods of Stress?

(10x2=20 Marks)

GE 2 TRADITIONAL TEXTILES & EMBROIDERIES OF INDIA

Corse Code : HS5GET02

BLUE PRINT

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	8	-	1	1	-	
2	12	3	2	1	1	
3	12	3	2	1	1	
4	10	3	2	1	1	
5	12	3	2	1	1	
Total	**54**	**12**	**9**	**5**	**4**	

TRADITIONAL TEXTILES AND EMBROIDERIES OF INDIA

Corse Code : HS5GET02

Time: 3 hours **Maximum marks:80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Define Fashion
2. Who are fashion leaders?
3. Differentiate classic from fad.
4. What is structural design?
5. Which are the basic figure shapes?
6. How is informal balance achieved?
7. Define drafting.
8. What is pattern alteration?
9. What is the function of a thumb screw?

10. Define pattern layout.
11. What is merchandising?
12. List the elements in marketing mix. **(9X2=18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. Add a note on haute couture.
14. Explain fashion cycle.
15. Discuss methods of obtaining rhythm.
16. Define texture. How texture is important in garment designing.
17. Give the importance of body measurements.
18. What are the merits and demerits of drafting?
19. Give an account on the marking tools used in garment construction.
20. Bring out the functions of a design department.
21. Define marketing. Give the functions of a marketing department. **(6X4=24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Write note on fashion forecasting.
23. Explain the techniques of pattern alterations.
24. Discuss the effects produced by lines.
25. Enumerate the steps in preparing fabric for construction.
26. Explain the role and responsibilities of a merchandiser. **(3X6=18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Write an essay on the principles and factors influencing fashion.
28. Discuss principles of design applied to apparel designing.
29. Draw and explain the parts of a sewing machine with a neat sketching.
30. Explain the 4 Ps in marketing mix. **(2X10=20 marks)**

GE 3 PHYSICAL FITNESS & HEALTH MANAGEMENT

Corse Code : HS5GET03

BLUE PRINT

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	10	2	1	1	1	
2	10	3	2	1	1	
3	10	2	2	1	1	
4	14	3	2	1		
5	10	2	2	1	1	
Total	**54**	**12**	**9**	**5**	**4**	

PHYSICAL FITNESS AND HEALTH MANAGEMENT

Corse Code : HS5GET03

Time; 3Hours **Maximum Marks -80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1 What is fitness?

2. Define Endurance

3 What is Balanced Diet

4 Define exercise

5 What are nutrients ?

6 Define Malnutrition

7 Differentiate between fat soluble and water soluble vitamins

8 Explain the functions of minerals

9 Define fibre

10 What is lean body weight?

11 Define BMI

12 Explain the factors responsible for obesity **(9x2=18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13 Explain the functions of foods

14 what is VO2? How can it be improved?

15 Explain the performance related physical activity

16 Describe the deficiency of calcium

17 Explain the functions of calcium

18 Describe the functions of sodium and potassium

19 Explain the Hypokinetic diseases

20 why weight management is important

21. Comment on exercise and leaness. **(6X4=24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22 Explain the risk factors for cancer

23 Describe the importance of fluid requirement during exercise

24 Explain the different tests used for fitness measurement

25 How energy expenditure is measured?

26 Explain the risk factors for cardiovascular diseases **(3X6=18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27 Explain the modern lifestyle diseases and its prevention

28 Discuss weight management under the following headings

(a) Body weight components

(b) Weight imbalance

29 Explain the effect of exercise on different body systems

30. Explain the importance of physical fitness and excercise **(10X2=20 marks)**

SEMESTER VI

FAMILY RESOURCE MANAGEMENT

Corse Code : HS6CRT09

BLUE PRINT

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	9	2	2	1	1	
2	15	3	2	1	1	
3	12	3	2	1	1	
4	12	2	2	1	1	
5	6	2	1	1	-	
Total	54	12	9	5	4	

FAMILY RESOURCE MANAGEMENT

Corse Code : HS6CRT09

Time: 3 hours **Maximum marks:80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Define time cost
2. What is savings?
3. Define Psychic income
4. Define work simplification
5. List out the stages of family life cycle
6. Classify goals
7. Brief about FPO
8. Define peak load
9. What is vermicompost
10. Define Investment
11. Define segregation of waste
12. Define consumer **(9X2=18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. Draw on daily work curve
14. Differentiate real and money income
15. Write on fifty-fifty method
16. Explain 3 R's in waste management
17. What is the working principle of pressure cooker
18. Enlist the methods of resolving conflict
19. List out the consumer rights
20. Group decision-discuss
21. Explain the significance of solar energy **(6X4=24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Explain the factors causing physiological fatigue?
23. Classify household fuels
24. Brief on steps in decision making
25. Explain on consumer problems
26. Enumerate on the steps in making budget? **(3X6=18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Explain management process
28. Describe on solar devices
29. Discuss guidelines for money management
30. Explain Mundel's classes of change **(2X10=20 marks)**

CLINICAL NUTRITION AND DIETETICS

Corse Code : HS6CRT10

BLUE PRINT

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	6	2	-			
2	8	2	2	1	1	
3	14	2	2	2	1	
4	12	3	2	1	1	
5	14	3	3	1	1	
Total	**54**	**12**	**9**	**5**	**4**	

CLINICAL NUTRITION AND DIETETICS

Corse Code : HS6CRT10

Time: 3 hours **Maximum marks: 80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Define RDA
2. What is a tumour?
3. Define glycaemic index.
4. What is PEM?
5. Define bland diet.
6. Give the characteristics of fluid diet.
7. Brief about IDD.
8. Explain the symptoms of Alzheimer's disease.
9. What are lipoproteins?
10. Define BMI.
11. Define Constipation.
12. What is Ascites? **(9X2=18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. What are the principles of therapeutic diet?
14. Write a short note on special feeding methods.
15. Explain the causes and symptoms of Tuberculosis.
16. What are the causes of Peptic Ulcer?
17. Discuss about the complications of Obesity.
18. Brief on the causes of Atherosclerosis
19. Write on dietary management of Hepatitis.
20. Explain about the causes of IDA
21. What is under weight and obesity ? **(6X4=24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. How will you classify hospital diets?
23. Explain the types of Diabetes
24. Suggest prevention measures for Vitamin A deficiency
25. Elucidate the common feeding problems in Parkinsons disease.
26. Explain about the causes and dietary management of Cancer? **(3X6=18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Explain the Nutrition Care Process and Team Approach in Nutritonal Care.
28. Describe on symptoms and Dietary Management of Hypertension.
29. Discuss on the Causes,Symptoms ,Dietary management of Nephrotic Syndrome.
30. Explain the causes, symptoms and importance of bland diet for a typhoid patient.

(2X10=20 marks)

FASHION DESIGNING & APPAREL PRODUCTION

Corse Code : HS6CRT11

BLUE PRINT

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	10	2	2	1	-	
2	12	3	3	1	1	
3	12	3	2	1	1	
4	10	2	1	1	1	
5	10	2	1	1	1	
Total	**54**	**12**	**9**	**5**	**4**	

FASHION DESIGNING AND APPAREL PRODUCTION

Corse Code : HS6CRT11

Time: 3 hours **Maximum marks:80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Define Fashion
2. Who are fashion leaders?
3. Differentiate classic from fad.
4. What is structural design?
5. Which are the basic figure shapes?
6. How is informal balance achieved?
7. Define drafting.
8. What is pattern alteration?
9. What is the function of a thumb screw?
10. Define pattern layout.
11. What is merchandising?
12. List the elements in marketing mix. **(9X2=18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. Add a note on haute couture.
14. Explain fashion cycle.
15. Discuss methods of obtaining rhythm.
16. Define texture. How texture is important in garment designing.
17. Give the importance of body measurements.
18. What are the merits and demerits of drafting?
19. Give an account on the marking tools used in garment construction.
20. Bring out the functions of a design department.
21. Define marketing. Give the functions of a marketing department. **(6X4=24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Write note on fashion forecasting.
23. Explain the techniques of pattern alterations.
24. Discuss the effects produced by lines.
25. Enumerate the steps in preparing fabric for construction.
26. Explain the role and responsibilities of a merchandiser. **(3X6=18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Write an essay on the principles and factors influencing fashion.
28. Discuss principles of design applied to apparel designing.
29. Draw and explain the parts of a sewing machine with a neat sketching.
30. Explain the 4 Ps in marketing mix. **(2X10=20 marks)**

COMMUNICATION IN EXTENSION

Corse Code : HS6CRT12

BLUE PRINT

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	10	2	2	1	1	
2	8	2	1	1		
3	11	3	2	1	1	
4	15	3	2	1	1	
5	10	2	2	1	1	
Total	**54**	**12**	**9**	**5**	**4**	

COMMUNICATION IN EXTENSION

Corse Code : HS6CRT12

Time: 3 hours **Maximum marks:80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Define communication
2. Intrapersonal Communication
3. Folk Media
4. Mobiles
5. What are the different steps in Extension Teaching ?
6. List the elements in teaching learning situation
7. Brief on the steps in conducting a demonstration.
8. Advantages of Mass method
9. How will you conduct a personal visit ?
10. Define audio-visual aids
11. Flannel graph
12. Direct purposeful experience. **(9X2=18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. Brief on the Process of Communication.

14. What are the functions of communication

15. What are the Criteria to be followed for effective extension teaching?

16. Differentiate between seminar and group discussion.

17.How will you organize an exhibition ?

18.Brief on different types of charts that can be used in extension communication.

19.What is the role of audio visual aids in communication ?

20.What are the peculiarities of print media ?

21.Write briefly on the steps in writing a script for a radio programme **(6X4=24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Discuss on the different levels of communication

23. What is the concept of extension education process ?

24. What are the factors influencing the selection and use of different extension methods ?

25. Describe on cone of experience.

26. How will you write a simple article in a news paper ?Illustrate with an example.

(3X6=18 marks)

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Describe the importance of communication in Home science Extension Education.

28. How extension methods are classified ?

29. Elaborate on the different types of visual aids used in communication .

30 .Discuss how computer based technologies can effectively used in Home Science extension.

CHOICE BASED ELECTIVES

ELECTIVE 1 – FOOD SEFETY

Course Code : HS6CBT01

FOOD SAFETY

Course Code : HS6CBT01

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	8	2	1	1		
2	10	2	2	1	1	
3	12	3	2	1	1	
4	10	2	2	1	1	
5	14	3	2	1	1	
Total	**54**	**12**	**9**	**5**	**4**	

FOOD SAFETY

Course Code : HS6CBT01

Time: 3 hours **Max. Marks: 80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Explain BIS
2. List any parasitic organisms
3. What are flavour enhancers?
4. Explain amoebiasis
5. List the sources of contamination of water
6. Expand HACCP
7. What are flatulence factors
8. List the type of contaminants in food
9. Define food quality assurance
10. What is Codex Alimentarius
11. Differentiate between Class I and Class II preservatives
12. List out the biological natural toxicants **(9x2= 18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. Explain Salmonellosis and the methods of prevention
14. Write on sources of contamination
15. What are the different practical rules for food sanitation?
16. Write note on food contamination
17. Describe the role of PFA in maintaining standards of foods
18. Write short note on potable water
19. Write on viral infections
20. Differentiate between Quality control and quality assurance
21. Brief on food toxins. **(6x4=24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Differentiate between food poisoning and food infection
23. Write on safe food practices
24. What is Botulism? How can it be prevented
25. Write on FSSAI
26. Bring out the importance of HACCP **(6x3=18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Define food adulteration. Explain different types of adulterants
28. Name and explain compulsory food standards in India
29. Describe food toxication and control measures
30. What are additives? How are they classified and food additives in current market

(2x10=20 marks)

ELECTIVE 2 EARLY CHILDHOOD CARE & EDUCATION

Course Code : HS6CBT02

BLUE PRINT

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	14	3	2	1	1	
2	10	2	2	1	1	
3	10	3	2	1	1	
4	15	2	2	1	1	
5	5	2	1	1		
Total	**54**	**12**	**9**	**5**	**4**	

EARLY CHILDHOOD CARE & EDUCATION

Course Code : HS6CBT02

Time :- 3 hours **Max. marks:- 80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Define environmental stimulation
2. Name two situations which can stimulate the language development in an infant
3. List two toy related issues of a child
4. What you mean by adoption
5. Mention two aims of environmental stimulation
6. Write any two safety measure a mother can take inside the home to prevent accidents
7. What you understand by personal safety
8. Define foster care
9. Define pre-school education
10. How a Balwadi differ from an Anganwadi
11. What you mean by pre school programme
12. List two qualities needed by a helper in the nursery school **(9x 2 =18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. Bring out the need for day care provision
14. Bring two ways to stimulate the physical development of a child
15. Differentiate between long term & long term planning
16. Explain how can keep the toys safe
17. Bring out the role of play in emotional development
18. Discuss the safety of children while playing
19. What are the points you should bear in mind while caring deaf child
20. Explain the special features of a Montessori school
21. List the outdoor equipment needed in a rural nursery school elderly **(6x 4 =24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Explain how an ordinary mother can stimulate the intellectual development of her child
23. Mention the different possible reasons for the residential care of children
24. Explain the safety of child related products
25. Bring out the objectives of pre school education
26. List the records to be maintained in a pre school. Bring out the use of any two records

(3x 6 =18 marks)

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Bring out the role of environmental stimulation for the social development of children
28. Discuss the role in the care of children with special needs
29. List the common accidents during childhood and describe how it can be prevented
30. Bring out the different ways to develop good the home - school togetherness.

(2x 10 =20 marks)

ELECTIVE 3 NEW TRENDS IN FAMILY AND COMMUNITY SCIENCE

Course Code : HS6CBT03

BLUE PRINT

Module	Hrs	Part A (9/12) 2 marks	Part B (6/9) 4 marks	Part C (3/5) 6 marks	Part D (2/4) 10 marks	Total 80 marks
1	12	3	2	1	1	
2	10	2	2	1	1	
3	10	2	2	1	1	
4	10	2	1	1		
5	12	3	2	1	1	
Total	**54**	**12**	**9**	**5**	**4**	

NEW TRENDS IN FAMILY AND COMMUNITY SCIENCE

Course Code : HS6CBT03

Time :- 3 hours **Max. marks:- 80**

Part A (Short Answer Questions,50 words)

Answer nine Questions

Each question carries 2 marks

1. Aptitude tests

2. Adolescent clubs

3. Bibliotherapy

4. Cool Max

5. Nanotextiles

6. What is Nanotextiles ?

7. Teletext

8. Peculiarities of GM foods

9. Zero calorie foods

10.Significane of Geriatric Housing.

11 Green Housing

12. What is safe food ? **(9x 2 =18 marks)**

Part B (Paragraph Answer Questions, 100 words)

Answer any six questions.

Each question carries 4 marks

13. What are the characteristics of Baby friendly hospitals ?

14. What are the new advances in the detection of problems in small children ?

15. Differentiate geotextiles and medicinal textiles

16. Brief on any two modern textile fibers.

17. What are the peculiarities of multimedia presentations ?

18. How information kiosks and virtual learning differs ?

19. Compare nutrigenomics and Nutrigenetics

20. What are the importance of ergonomic furitures in home ?

21. Write briefly on water management. **(6x 4 =24 marks)**

Part C (Short essay, 150-200 words)

Answer any *three* questions

Each question carries 6 marks

22. Discuss on ndifferent stress management techniques.

23. Elaborate on International and Indian environmental legislations.

24. What is the significance of e-learning and e-resources in extension ?

25. Comment on the special features of space and sports nutrition

26. Differentiate between green house effect and global warming **(3x 6 =18 marks)**

Part D (Long essay Questions, 400 words)

Answer any *two* questions

Each question carries 10 marks

27. Elaborate on any five special innovative approaches that can be used for the development of children

28. How ecofriendly production and processing is applied in organic and naturally coloured cotton ?

29. What is cyber extension ?

30. Describe on the different environmental protection programmes **(2x 10 =20 marks)**

APPENDIX

Annexure I a - Model Mark cum Grade Card (I Semester)

Mahatma Gandhi University

Section: Priyadarshni Hills P.O.

Student ID: Kottayam

Date:

MARK CUM GRADE CARD

Name of candidate :

Name of College :

Permanent Register Number (PRN) : Degree:

Name of the Programme :

Name of Examination : First Semester Examination Month and Year

Date of publication of result :

Paper Code	Paper Title	Credits (C)	Marks						Grade Awarded (G)	Grade Point (GP)	Credit Point (C x GP)	Institution Average (IA)	University Average (UA)	Result
			External		Internal		Total							
			Awarded (E)	Maximum	Awarded (I)	Maximum	Awarded (E+I)	Maximum						
	Common Course I Common Course II Core Course Complementary course I Complementary course II/ Vocational Course TOTAL SGPA : Grade :													

Annexure I b - Model Mark Cum Grade Card (II Semester)

Mahatma Gandhi University

Section :

Student ID :

Priyadarshni Hills P.O.

Kottayam

Date:

MARK CUM GRADE CARD

Name of candidate :

Name of College :

Permanent Register Number(PRN) : Degree :

Name of the Programme :

Name of Examination : Second Semester Examination Month and Year

Date of publication of result :

Paper Code	Paper Title	Credits (C)	Marks						Grade Awarded (G)	Grade Point (GP)	Credit Point (C x GP)	Institution Average (IA)	University Average (UA)	Result
			External		Internal		Total							
			Awarded (E)	Maximum	Awarded (I)	Maximum	Awarded (E+I)	Maximum						
	Common Course I Common Course II Core Course Complementary course I Complementary course II/ Vocational Course SGPA : Grade :													

Annexure I c - Model Mark Cum Grade Card (III Semester)

Mahatma Gandhi University

Section: Priyadarshni Hills P.O.

Student ID: Kottayam

Date:

MARK CUM GRADE CARD

Name of candidate :

Name of College :

Permanent Register Number (PRN) : Degree :

Name of the Programme :

Name of Examination : Third Semester Examination

Date of publication of result :

Paper Code	Paper Title	Credits (C)	Marks						Grade Awarded (G)	Grade Point (GP)	Credit Point (C x GP)	Institution Average (IA)	University Average (UA)	Result
			External		Internal		Total							
			Awarded (E)	Maximum	Awarded (I)	Maximum	Awarded (E+I)	Maximum						
	Common Course I Common Course II Core Course Complementary Course I Complementary course II/ Vocational Course SGPA ; Grade :													

Annexure I d - Model Mark Cum Grade Card (IV Semester)

Mahatma Gandhi University

Section: Priyadarshni Hills P.O.

Student ID: Kottayam

Date:

MARK CUM GRADE CARD

Name of candidate :

Name of College :

Permanent Register Number (PRN) : Degree :

Programme : Mathematics

Name of Examination : Fourth Semester Examination Month and Year

Date of publication of result :

Paper Code	Paper Title	Credits (C)	Marks						Grade Awarded (G)	Grade Point (GP)	Credit Point (C x GP)	Institution Average	University Average	Result
			External		Internal		Total							
			Awarded (E)	Maximum	Awarded (I)	Maximum	Awarded (E+I)	Maximum						
	Common Course I Common Course II Core Course Complementary course I Complementary course II/ Vocational Course SGPA : Grade :													

	Marks		Credit	GPA	Grade
	Awarded	Max			
Common Course 1 **Common Course II** **Complementary Course I** **Complementary Course II**					

Annexure I e - Model Mark cum Grade Card (V Semester)

Mahatma Gandhi University

Section: Priyadarshni Hills P.O.

Student ID: Kottayam

Date:

MARK CUM GRADE CARD

Name of candidate :

Name of College :

Permanent Register Number (PRN) : Degree :

Name of the Programme : Mathematics

Name of Examination : Fifth Semester Examination Month and Year

Date of publication of result :

Paper Code	Paper Title	Credits (C)	Marks						Grade Awarded (G)	Grade Point (GP)	Credit Point (C x GP)	Institution Average (IA)	University Average (UA)	Result
			External		Internal		Total							
			Awarded (E)	Maximum	Awarded (I)	Maximum	Awarded (E+I)	Maximum						
	Core 5 Core 6 Core 7 Core 8 Generic Elective SGPA : Grade :													

Annexure I f - Model Mark cum Grade Card (VI Semester)

Mahatma Gandhi University

Section: Priyadarshni Hills P.O.

Student ID: Kottayam

Date:

MARK CUM GRADE CARD

Name of candidate :

Name of College :

Permanent Register Number (PRN) : Degree :

Programme : Mathematics

Name of Examination : Sixth Semester Examination Month and Year

Date of publication of result :

Paper Code	Paper Title	Credits (C)	Marks						Grade Awarded (G)	Grade Point (GP)	Credit Point (C x GP)	Institution Average (IA)	University Average (UA)	Result
			External		Internal		Total							
			Awarded (E)	Maximum	Awarded (I)	Maximum	Awarded (E+I)	Maximum						
	Core 9 Core 10 Core 11 Core 12 Choice Based Paper Project SGPA : ; Grade :													

	Marks		Credit	GPA	Grade	Month and Year	Result
	Awarded	Maximum					
Semester 1 Semester II Semester III Semester IV Semester V Semester VI							
Common Course 1 Common Course II Complementary Course I Complementary course II Core course Generic elective Overall Programme CGPA:							

Annexure I g - Reverse side of the Mark cum Grade Card (COMMON TO ALL SEMESTERS)

Description of the Evaluation Process

Grade and Grade Point

The Evaluation of each Course comprises of Internal and External Components in the ratio 1:4 for all Courses.

Grades and Grade Points are given on a 10-point Scale based on the percentage of Total Marks (Internal + External) as given in Table 1

(Decimals are to be rounded mathematically to the nearest whole number)

Table 1

% Marks	Grade	GP
Equal to 95 and above	S Outstanding	10
Equal to 85 and < 95	A^+ Excellent	9
Equal to75 and < 85	A Very Good	8
Equal to 65 and < 75	B^+ Good	7
Equal to55 and < 65	B Above Average	6
Equal to45 and < 55	C Satisfactory	5
Equal to40 and < 45	D Pass	4
Below 40	F Failure	
	Ab Absent	

Credit point and Credit point average

Grades for the different Semesters and overall Programme are given based on the corresponding CPA, as shown in

Table 2

CPA	
Equal to9.5 and above	**S Outstanding**
Equal to 8.5 and < 9.5	**A+ Excellent**
Equal to7.5 and < 8.5	**A Very Good**
Equal to 6.5 and < 7.5	**B+ Good**
Equal to5.5 and < 6.5	**B Above Average**
Equal to4.5 and < 5.5	**C Satisfactory**
Equal to4.0 and < 4.5	**D Pass**
Below 4.0	**F Failure**

Credit point (**CP**) of a paper is calculated using the formula $\boldsymbol{CP = C \times GP}$,

where C is the Credit;

GP is the Grade Point

Grade Point Average (GPA) of a Course/ Semester or Programme (cumulative) etc. is calculated using the formula

GPA = $\frac{\boldsymbol{TCP}}{\boldsymbol{TC}}$,

where TCP is the Total Credit Point;

TC is the Total Credit

NOTE

A separate minimum of 30% marks each for internal and external (for both theory and practical) and aggregate minimum of 40% are required for a pass for a paper. For a pass in a programme, a separate minimum of **Grade D** is required for all the individual papers. If a candidate secures **F Grade** for any one of the paper offered in a Semester/Programme **only F grade** will be awarded for that Semester/Programme until he/she improves this to **D GRADE** or above within the permitted period.

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