

# **Master of Philosophy in Home Science**

**SYLLABUS (2019-20 )**



**P.G. DEPARTMENT OF HOME SCIENCE**  
**SAMBALPUR UNIVERSITY**  
**JYOTI VIHAR**

**Courses of Studies for the M. Phil Degree (Home Science)  
Under Semester Course Credit System of Teaching and Examination  
Effective from January 2019**

**Course Scheme**

**First Semester**

HSC 611 - Current Trends in Food & Nutrition (Theory Compulsory) 4 CH

**Elective Paper - A Student shall opt for any one of HSC 612(A/B/C )**

HSC 612 A - Family Studies (Theory, Elective) 4 CH

HSC 612 B- Community & Public health Nutrition (Theory, Elective) 4 CH

HSC 612 C- Child & Family welfare	(Theory, Elective)	4 CH
HSC 613 - Research Methodology	(Theory Compulsory)	4 CH
(Quantitative Analysis and Computer Application)		
HSC 614- Data Analysis and computer application Practical		4CH
HSC 615 - Review of Research papers published in Referred Journals		4CH
Review of Report-2CH and Seminar-2CH		
	<b>Total</b>	<b>20CH</b>
 <b>Second Semester</b>		
HSC 621- Seminar (At least Two)		2CH
HSC 621- Dissertation		18 CH
(Interim 8CH+Final 10CH)	<b>Total</b>	<b>20CH</b>
	<b>Grand Total Credit Hour</b>	<b>40CH</b>

### Instruction to the Paper Setter

1. In theory papers question will be set unit-wise with maximum 2 questions from each unit (Total 8 questions, students shall be asked to answer one question from each unit with 50% choice from each unit. (Total 4 questions.)

2. Maximum 60% of the questions shall be long answered type and 40% shall be short answered type.

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**Detail Courses of Studies**

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**First Semester**

**HSC-611- CURRENT TRENDS IN FOOD & NUTRITION**

4CH

**Unit-I**

**Food Science & Application:** Nutritional factor and active principles and changes of active Principles during cooking and their nutritional implications for the following: Cereals, Pulses, vegetables & fruits, nuts & oilseeds, milk & Milk Product, beverages, spices & condiments, meat, fish, poultry & egg, fats & oils. Application of natural & synthetics flavours & colours, latest trend in the concept of Functional foods, their role in designer foods, nutraceuticals, phytochemicals, antioxidants, genetically modified foods.

**Unit-II**

**Biochemical Aspects of Macro Nutrients:**

Carbohydrates: digestion, absorption & metabolism & effect of deficiency Proteins: digestion, absorption & metabolism & effect of deficiency, protein quality evaluation, amino acids & their role in health & diseases ,Fat: digestion, absorption & metabolism &, types of fatty acids & their role in health & diseases Energy Metabolism: BMR, SDA and energy requirement, respiratory quotient & metabolism in starvation, interrelation between the nutrients

**Unit-III**

**Biochemical Aspects of Micro Nutrients:**

Vitamins: Functions, digestion, absorption & metabolism of fat soluble & water soluble vitamins, effect of deficiency & interrelationship. Minerals and Trace elements: Functions, absorption, metabolism, effect of deficiency & interrelationship, Water & electrolyte balance

**Unit-IV**

## **Nutrition through Life cycle:**

RDA and nutritional importance during pregnancy, Lactation, infancy & childhood years, adolescents, adulthood and nutrition in aging, Nutritional problems in changing society- Psychosocial influence on food habits, food & gender, food taboos, food choice, and Problem of malnutrition

### **Recommended Books**

1. Pauline C. Paul & Helen H. Palmer, Food Theory & application, John Wiley & sons
2. Gladys G. Peckham, Foundations of Food Preparation, Macmillan Publication
3. Seema Yadav, Food hazards & Food Hygiene, Anco publication Pvt. Ltd.
4. Agarwal O.P. Agarwal's Text Book of Biochemistry, Goel Publishing House, Meerut
5. Stanley Davidson, Passmore, R. Brock, J.F. and Truswell A.S. Human Nutrition & Dietetics, the English language Book Society & Churchill Livingstone
6. Shils Maurice, E. Modern Nutrition in Health & diseases, Young Vernon publishers
7. WHO, Trace elements in Human Nutrition & Health
8. Margaret Mc Williams, Nutrition for growing Years- John Wiley & Sons
9. Paul Field House, Food & Nutrition, Customs & culture, Chandan publishers
10. Z.S.C. Okoye Biochemical aspects of Nutrition, Prentice Hall of India

## **HSC 612A FAMILY STUDIES**

**4 CH**

### **Unit- I**

Concepts and conceptual frame works for understanding family. Normative family patterns: correlates, changes and implications. Alternate family patterns and policies. Family life enrichments: Rights and responsibilities of Individual and family. Policies towards enrichment of family life

### **Unit- II**

Crisis in family: Prolonged illness, Suicide, mental illness, unemployment, divorce widows. Researches on families with problems: utility, limitation & future direction. Disaster and Intervention: Dynamics of families facing environmental disaster and intervention. Intervention with rural families

### **Unit- III**

Family Interventions: Assessment of interventions: crisis intervention; concepts, types, components, techniques, self-help groups: concepts, theories, strategies, methods and skills. Family rehabilitation; Need, approaches, tools and role of social worker.

### **Unit-IV**

Old age: Physical and psychological problems in the old age. Need for a policy for ageing. Welfare programmes for the aged. Health status of women and children: , Need for a health policy. Welfare programmes for the women, children and youths. Need for the family - focus in the programmes.

#### **Recommended Books:**

1. M.Desai eds.Enhancing the Role of Family as an Agency for Social and Economic Development - Unit for Family Studies.
2. I.P.Desai Some Aspects of Family in Mahuaa., Asia Publ. House.
3. Mrs. Gore Urbanization and Family Change in India -Popular Prakashan.
4. M.Desai Eds Family and Intervention - Some case Studies - TISS Publisher.
5. M.Desai Eds Family System and Policies Course Compendia (ed TISS.
6. Harper and Bross ,Family,It's Function and Destiny.
7. Kapadia.The Indian family - in the Change and Challenges of the Seventies
8. Park and Park.Text Book of preventive and social medicine

**HSC 612B- COMMUNITY AND PUBLIC HEALTH NUTRITION**

**4CH**

#### **Unit-I**

Nutrition for the Community: Nutrition of the individual, family and community - general concept, nutritional problems in changing societies with special reference to micronutrient deficiencies- prevalence, causes and remedies. Effects of malnutrition through the life cycle, Assessment of nutritional status - direct and indirect methods

#### **Unit-II**

Nutrition education: Definition, planning, conducting and evaluation. Tools of nutrition education- merits and demerits, curriculum designs for nutrition education, nutrition education through health care systems. Formulation of realistic developmental health plans based on needs with special reference to vulnerable group population and women. Healthy nutrition through local produce by adequate intake of nutritious diet.

#### **Unit-III**

Population and Food availability: Size and growth rate of population in India. The food problem and policy, Measures to solve problem, New agricultural strategy, Food security in India, estimates of hunger, problems of Food security in India, food deprivation,Effective food security management, Intra family food distribution, food fads and fallacies, Demography, vital statistics and population control.

#### **Unit-IV**

Nutrition Intervention Programmes and Nutritional Health Programmes ,National- ICDS, Nutritious noon meal scheme, NNMB, PHC, MCH, MNP ,International - CARE, WHO, FAO, UNICEF. National Health Programmes- NTCP, NFCP, NLMP, MEP, AIDS control programme, National, Nutrition policy ,National Immunisation Programme and IDDC.

#### **Recommended Books**

1. Philips Foster and Howaid D. Leathers, (1999), The World Food Problem Tackling the Causes

of Under Nutrition in the Third World, second edition. Lynne Rienner Publishers, Inc.

2. World Food Programme Enabling Development Food Assistance In South Asia, Publication Prepared By WFP Regional Office For South Asia.

3. Lillian Langseth, (1996), Nutritional Epidemiology- Possibilities And Limitations, International Life Sciences Institute.

4. Ghai O.P. And Gupta.P,(1999), Essential Preventive Medicine- A Clinical And Applied Orientation, Vikas Publishing House Pvt. Ltd.

5. The State Of Food Insecurity In The World(2000), Food And Agriculture Organizations Of The United Nations, Rome, Italy.

6. National Workshop On Alleviating Micronutrient Deficiency- Role Of Horticulture And Home Gardens - Background Papers Organized By M.S.Swaminathan Research Foundation, Chennai-600113, Friday 29, 2001.

7. Food And Nutrition Bulletin,(1997), Supplement- Ending Malnutrition By 2020 An Agenda For Change In The Millennium.

8. National Conference On Opportunities And Challenges For Preventing Micronutrient Malnutrition Through ICDS, (1997), Sep 21-22, 2000. Conference Proceedings.

9. Preventing Micronutrient Malnutrition- A Guide To Food Based Approaches, (1997), A Manual For Policy Makers And Programme Planners Prepared By Food And Agriculture Organizations Of The United Nations And International Life Sciences Institute.

10. Ruedar Datt And Sundaram K.P.M, (1997), India Economy, S. Chand And Company Ltd., Ram Nagar, New Delhi-110055.

## **HSC 612C- CHILD & FAMILY WELFARE**

4CH

### **Unit-I**

**Social welfare:** Distinction between Social welfare and Services ,objectives and needs of welfare services ,Social reform, social security, main characteristic of social security programme, factors determining social welfare programmes; social welfare models- family welfare, marriage counseling, maternal care and family planning , family life education, old age care.

### **Unit-II**

**Child Welfare:** State of children, U.N. Convention on rights of the child, World summit for children, child welfare in Indian-Constitutional legislative provision, National policy for children's health and nutrition and its implementation .ICDS, NIPCCD and other programmes for the welfare of children -Crèches/Day Care Centers/Early Childhood Education/ Compulsory and free education for children, child labour prohibition act, disable children act, girl child protection scheme.

### Unit-III

**Women welfare:** Position of women in India, Welfare programme for women at the center and state level- hostel for working women, Employment and income generating programmes, Women's training centers for rehabilitation for women in distress, legislation related to Women's welfare-CEDAW (Convention on elimination of all forms of discrimination against women, maternal benefit Scheme, pension Scheme for widows, Dowry prohibition Act-WRLH (Women's right to life and health)

### Unit-IV

#### Health and Family Welfare

National Health policy and programmes and their implementation. National programme for control of Blindness, Leprosy, Aids, Goiter, and Diabetes etc, National Mission on immunization, Nutrition programmes, Health Schemes (at the centre and state)measures to promote family welfare programmes,population control measures. National & International Agencies working for Health & Family welfare.

#### Recommended Books:

1. J.P. Singh Eds, The Indian Women: Myth and Reality - Gyan Publ. House.
2. Rehana Ghadially Eds, Women in Indian Society - Sage publication.
3. Ashok Kumar Eds, Women in Contemporary Society - Vol. I and Vol. II - Anmol Publication.
4. Verhellen Eugene , Understanding Children's Right - .
5. Verhellen Eugene , Monitoring Children's Right - .
6. Preffer George & D.K.Behera , Contemporary Society - Childhood and Complex Order -- Monak Publ.
7. D.K.Behera , Children and Childhood in our Contemporary Society -- Kamal - Raj Enterprises.
8. R. Indira and D.K.Behera , Gender and society in India - Vol - I and Vol - II.
9. C. Gopalan & Surinder Kaur Eds , Women and Nutrition in India - NFI Publication.
10. Alfred D'Souza Eds Children in India - Manohar Publication.
11. Dr. D.R. Sachadeva , Social Welfare Administration in India -- Kitab Mahal.
12. Profile of under Nutrition and under Development - Scientific Report No 8 NFI Publ.

HSC-613

RESEARCH METHODOLOGY

4 CH

(Quantitative Analysis and Computer Application)

#### Unit-I

Research design, Sampling design, Methods of data Collection , Classification and Tabulation of data, Diagrammatic representation of data, Measures of central tendency, Measures of dispersion, Skewness, Kurtosis,



## Unit-II

Testing of Hypothesis, Tests: t test,  $X^2$  (Chi-square) and F-tests, Z test, Analysis of variance, covariance, Simple correlation, Multiple correlation, regression analysis. Scientific report writing.

## Unit-III

Functional units of a computer, Windows operating system, Managing files and folders, Word editing and formatting, working with tables, Creating and printing a presentation, producing a slide show, Editing and formatting worksheets, performing basic calculations, working with chart .Using the internet and the world wide web.

## Unit-IV

Role of Research methods and statistics in Home-Science discipline, Thrust areas in the field research in various branches of Home Science. Uses of MS excel - basics, creation of data file, analysis of data by various statistical methods and creation of charts & graphs. Use of SPSS - basics, creation of data file, analysis' of data by descriptive statistics, chi square & t test, correlation & regression one way ANOVA etc

### Recommended Books:

1. Bhattacharyya, D.K., Research Methodology Excel Books, New Delhi, II Edition,
2. Gupta, S.C. and Kapoor, V.K S. Fundamentals of Mathematical Statistics, Chand, New Delhi.
3. Sinha, P.K. and Sinha, Priti Computer Fundamentals, BPB Publication Comdex Computer Course Kit, BPB Publication.
4. Russell, A. Stultz ,Learn Microsoft office, ,
5. Paul Young.,Scientific Social survey and Research -
6. T.S.Wilkinson and P.L.Bhandarkar Methodology and Techniques of Social Research - .Himalaya publishing house
7. C.R.Kothari Research Methodology - Methods and Techniques Wiley eastern limited
8. D.N.Elhance Fundamentals of Statistics-.
9. Garret and Word.Statistics in Psychology and Education-
10. S.P. Gupta.,Statistical Methods -Sultan Chandand Sons Publisher NewDelhi
11. Kulbir Singh Sidhu Methodology of Research.
12. M. Singhal,Elements of statistics- Theory and Practice-
13. S.K.Kapur ,Elements of practical Statistics -.
14. C.B.Gupta.,An Introduction to Statistical methods -

### HSC-614            **Data Analysis & Computer Application Practical**            **4 CH**

1. Formulation of Research proposals.
2. Preparation of interview schedule, Questionnaire and other tools for collection of data.
3. Classification and tabulation of data.
4. Diagrammatic and graphical presentation of the data.
5. Statistical analysis: use of different statistical tools in the analysis of data.
6. Fundamentals of computer: Basic components, computing concepts, disk operating system, Copy, delete, restore, format and other important commands, operation of windows, MS word, MS Excel, MS Power point etc.
7. Presentation of data: Preparation of line graph, histogram, bar diagram, pie diagrams etc. by the help of computer.

8. Computer application in data analysis - Calculation of average, Standard deviation, Correlation, regression, analysis of variance and other statistical tests (chi-square, 't' test and 'z' test) by the help of computer.
9. Any other related topics to be decided by the teachers' council.

**Books recommended:**

1. A Hand Book of Methodology of Research - R.P.Devdas and Dr K.Kulandeivel - Sri Rama Krishna Mission Vidyalaya College of Education.
2. Research Methodology - Methods and Techniques C.R.Kothari - Wiley Eastern Ltd.
3. Methodology and Technique of Social Research - Wilkinson and Bhandarkar - Himalaya Publ. House.
4. Research method in Behavioural Science - S.M.Mohesin - Orient Longman Publication.
5. Statistical Methods-S.P.Gupta

**HSC-615 REVIEW OF RESEARCH PAPERS PUBLISHED IN REFERRED JOURNALS 4CH**

**Review of Report-2CH and Seminar-2CH**

Each student has to select a topic for the review work immediately after admission. He/She shall undertake the work under the supervision of a recognized teacher of the Department. On the basis of the review of literature specifically research papers published in referred Journals on the topic selected, the student has to prepare a report and submit the same for evaluation by the teachers council. He/ She has to make a presentation of the review report before the faculty, Research scholars and students in the Department. Evaluation of the review report and seminar will be done by the teacher's council of the department.

**Second Semester**

**HSC 621- Seminar (At least Two) 2CH**

**HSC 621- Dissertation 18 CH**

(Interim 8CH+Final 10CH)

Each student has to carry out the dissertation work immediately after admission and has to submit a research proposal to carry out independent research on a topic decided in consultation with the supervisor, (nominated by the teacher's council of the department) to the head of the department. The student has to submit an interim report containing Introduction, Literature review, objectives, Hypothesis, references etc for evaluation by the teachers of the department before 15<sup>th</sup> September, which will carry 8CH. Then the candidate has to produce a draft thesis before 15<sup>th</sup> November and make a presentation of the thesis in the department before the faculty and research students for getting feedback and comments which shall be suitably incorporated in the final dissertation under the advice of the

supervisor. The candidate has to submit three copies and a soft copy of the final dissertation by 15<sup>th</sup> December to the head of the department. The H.O.D will forward the dissertation to the examiner for evaluation. The valuation of dissertation shall be followed by an open Viva voce In the final dissertation evaluation ( 10CH), 50% weight age shall be given to continuous evaluation during the dissertation work, 25% to the evaluation of content and rest 25% to seminar presentation & viva voce by the examiners.

**Course Work for Ph.D Programme in (Home Science)  
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**Detail Course Scheme**

HSC 611 -	Current Trends in Food & Nutrition	(Theory Compulsory)	4 CH
<b>Elective Paper - A Student shall opt for any one of HSC 612(A/B/C)</b>			
HSC 612 A -	Family Studies	(Theory, Elective)	4 CH
HSC 612 B-	Community & Public health Nutrition	(Theory, Elective)	4 CH
HSC 612 C-	Child & Family welfare	(Theory, Elective)	4 CH
HSC 613 -	Research Methodology	(Theory Compulsory)	4 CH
	(Quantitative Analysis and Computer Application)		

HSC 614- Data Analysis and computer application Practical	4CH
HSC 615 - Review of Research papers published in Referred Journals	4CH
Review of Report-2CH and Seminar-2CH	
<b>Total</b>	<b>20CH</b>

### **Instruction to the Paper Setter**

3. In theory papers question will be set unit-wise with maximum 2 questions from each unit (Total 8 questions, students shall be asked to answer one question from each unit with 50% choice from each unit. (Total 4 questions.)
4. Maximum 60% of the questions shall be long answered type and 40% shall be short answered type.

### **N.B. Detailed Course Structure Same as M.Phil (Home Science)**

#### **First Semester Course.**

