



FYUGP

HOME SCIENCE HONOURS/ RESEARCH

FOR UNDER GRADUATE COURSES UNDER RANCHI UNIVERSITY



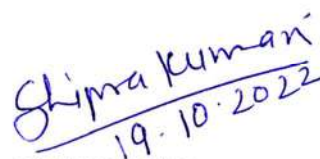
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Four-Year Undergraduate Programme (FYUGP)**

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HIGHLIGHTS OF REGULATIONS OF FYUGP

PROGRAMME DURATION

- The Full-time, Regular UG programme for a regular student shall be for a period of four years with multiple entry and multiple exit options.
- The session shall commence from **1st of July**.

ELIGIBILITY

- The selection for admission will be primarily based on availability of seats in the Major subject and marks imposed by the institution. Merit point for selection will be based on marks obtained in Major subject at Class 12 (or equivalent level) or the aggregate marks of Class 12 (or equivalent level) if Marks of the Major subject is not available. Reservation norms of The Government of Jharkhand must be followed as amended in times.

ADMISSION PROCEDURE

- The reservation policy of the Government of Jharkhand shall apply in admission and the benefit of the same shall be given to the candidates belonging to the State of Jharkhand only. The candidates of other states in the reserved category shall be treated as General category candidates. Other relaxations or reservations shall be applicable as per the prevailing guidelines of the University for FYUGP.

ACADEMIC CALENDAR

- Each year the University shall draw out a calendar of academic and associated activities, which shall be strictly adhered to. The same is non-negotiable. Further, the Department will make all reasonable endeavors to deliver the programmes of study and other educational services as mentioned in its Information Brochure and website. However, circumstances may change prompting the Department to reserve the right to change the content and delivery of courses, discontinue or combine courses and introduce or withdraw areas of specialization.

PROGRAMME OVERVIEW/ SCHEME OF THE PROGRAMME

- Undergraduate degree programmes of either 3 or 4-year duration, with multiple entries and exit points and re-entry options within this period, with appropriate certifications such as:
 - a Certificate after completing 1 year (2 semesters) of study in the chosen fields of study,
 - a Diploma after 2 years (4 semesters) of study,
 - a Bachelor after a 3-year (6 semesters) programme of study,
 - a Bachelor (with Hons. / Research) after a 4-year (8 semesters) programme of study

VALIDITY OF REGISTRATION

- Validity of a registration for FYUGP will be for maximum for Seven years from the date of registration.

CALCULATION OF MARKS FOR THE PURPOSE OF RESULT

- Student's final marks and the result will be based on the marks obtained in Semester Internal Examination and End Semester Examination organized taken together.
- Passing in a subject will depend on the collective marks obtained in Semester internal and End Semester University Examination both. However, students must pass in Theory and Practical Examinations separately.

PROMOTION AND SPAN PERIOD

- i. The Requisite Marks obtained by a student in a particular subject will be the criteria for promotion to the next Semester.
- ii. No student will be detained in odd Semesters (I, III, V & VII).
- iii. To get promotion from Semester-II to Semester-III a student will be required to pass in at least 75% of Courses in an academic year (a student has to pass in minimum 9 papers out of the total 12 papers. However, it will be necessary to procure pass marks in each of the paper before completion of the course.
- iv. To get promotion from Semester-IV to Semester-V (taken together of Semester I, II, III & IV) a student has to pass in minimum 16 papers out of the total 22 papers.
- v. Eligibility to get entry in Semester VII is to secure a minimum of 7.5 CGPA up to semester VI along with other criteria imposed by the Institution.

PUBLICATION OF RESULT

- The result if the examination shall be notified by the Controller of Examinations of the University in different newspapers and also on University website.
- If a student is found indulged in any kind of malpractice/ unfair means during examination, the examination taken by the student for the semester will be cancelled. The candidate has to reappear in all the papers of the session with the students of next coming session and his one year will be detained. However, marks secured by the candidate in all previous semesters will remain unaffected.
- There shall be no Supplementary or Re-examination for any subject. Students who have failed in any subject in an even semester may appear in the subsequent even semester examination for clearing the backlog. Similarly, the students who have failed in any subject in an odd semester may appear in the subsequent odd semester examination for clearing the backlog.
- Regulation related with any concern not mentioned above shall be guided by the Regulations of the University for FYUGP.

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COURSE STRUCTURE FOR FYUGP 'HONOURS/ RESEARCH'

Table 1: Credit Framework for Four Year Undergraduate Programme (FYUGP) under State Universities of Jharkhand [Total Credits = 176]

Semester	Common Courses (29)									Introductory Courses (15)		Internship/ Project (4)	Major* (54) + Adv. Major (24)	Minor** (32)		Research Courses (18)				Total Credit
	Language and Communication Skills (Modern Indian Language including TRL) (6)	Language and Communication Skills (English) (6)	Environmental Studies (3)	Understanding India (2)	Health & Wellness, Yoga Education, Sports & Fitness (2)	Digital Education (3)	Mathematical & Computational Thinking and Analysis (2)	Value-Based Course/ Global Citizenship Education (2)	Community Engagement/ NCC/ NSS/ (3)	Introductory Courses [Natural Sc./ Humanities/ Social Sc./Commerce] (9)	Introductory Course [Vocational Studies] (6)			Natural Sc./ Humanities/ Social Sc./ Commerce (18)	Vocational Studies (14)	Research Methodology Courses (6)	Research Proposal, Review of literature (4)	Research Internship/ Field Work (4)	Preparation of the Research Project Report (4)	
1	2	3	4	5	6	7	8			9	10	11	14	15	16	17	18	19	20	21
I	6			2	2					3	3		6							22
II		6					2	2		3	3		6							22
Exit Point: Undergraduate Certificate																				
III			3			3			3	3		4	6							22
IV													6+6	6	4					22
Exit Point: Undergraduate Diploma																				
V													6+6	6	4					22
VI													6+6	6	4					22
Exit Point: Bachelor's Degree																				
VII													6+6 (Adv. Topics)			6	4			22
VIII													6+6 (Adv. Topics)		2			4	4	22
Exit Point: Bachelor's Degree with Hons. /Research																				

*There will be four disciplinary areas: A-Natural Science, B-Humanities, C-Social Science, and D-Commerce; each having basket of courses. A student will have to select a 'Major' from any of the four disciplinary areas (out of A, B, C & D). The selection for admission will be primarily based on availability of seats in Major and marks imposed by the institution.

**A student has to select three subjects for 'Introductory Regular Courses' from a pool of subjects associated with the Major offered by the institution. One of the three subjects will continue as 'Minor' from semester IV onwards, based on the academic interest and performance of the student.

Session 2022-26 onwards

COURSES OF STUDY FOR FOUR YEAR UNDERGRADUATE PROGRAMME

Table 2: Course structure for Undergraduate Certificate Programme [May Exit after Sem.-II]

Semester	Common Courses			Introductory Courses		Major	Total Credits
Sem.-I	LCS (MIL/TRL) (6 Credits)	Understanding India (2 Credits)	Health & Wellness, Yoga Education, Sports & Fitness (2 Credits)	IRC-1 (3 Credits)	IVS-1A (3 Credits)	MJ-1 (6 Credits)	(22)
Sem.-II	LCS (English) (6 Credits)	Global Citizenship Education (2 Credits)	Mathematical & Computational Thinking (2 Credits)	IRC-2 (3 Credits)	IVS-1B (3 Credits)	MJ-2 (6 Credits)	(22)

Total = 44 Credits

(LCS: Language and Communication Skills; MIL: Modern Indian Languages; TRL: Tribal Regional Languages;
IRC: Introductory Regular Courses; IVS: Introductory Vocational Studies, MJ: Major)

Table 3: Course structure for Undergraduate Diploma Programme [May Exit after Sem.-IV]

Semester	Common Courses			Introductory	Major Courses Credits	Minor	Internship/ Vocational Project	Total Credits
Sem.-III	Environmental Studies (3 Credits)	Community Engagement/ NCC/ NSS (3 Credits)	Digital Education (3 Credits)	IRC-3 (3 Credits)	MJ-3 (6 Credits)		Internship/ Project (4 Credits)	(22)
Sem.-IV					MJ-4, MJ-5 (6+6=12 Credits)	MN-1 (6 Credits)	VS-1 (4 Credits)	(22)

Total = 88 Credits

(MN: Minor; VS: Vocational Studies)

Table 4: Course structure for Bachelor's Degree Programme [May Exit after Sem.-VI]

Semester	Major Courses	Minor Courses	Vocational	Total Credits
Sem.-V	MJ-6, MJ-7 (6+6 = 12 Credits)	MN-2 (6 Credits)	VS-2 (4 Credits)	(22)
Sem.-VI	MJ-8, MJ-9 (6+6 = 12 Credits)	MN-3 (6 Credits)	VS-3 (4 Credits)	(22)

Total = 132 Credits**Table 5: Course structure for Bachelor's Degree with Hons./Research Programme**

Semester	Advance Courses	Research Courses	Vocational	Total Credit
Sem.-VII	AMJ-1, AMJ-2 (6+6=12 Credits)	Research Methodology (6 Credits)	Research Proposal (4 Credits)	(22)
Sem.-VIII	AMJ-3, AMJ-4 (6+6=12 Credits)	Research Int./Field Work (4 Credits)	Research Report (4 Credits)	VSR (2 Credits) (22)

Total = 176 Credits

(AMJ: Advance Major; VSR: Vocational Studies associated with Research)

Table 6: Semester wise Course Code and Credit Points:

Semester	Common, Introductory, Major, Minor, Vocational & Internship Courses		Credits
	Code	Papers	
I	CC-1	Language and Communication Skills (Modern Indian language including TRL)	6
	CC-2	Understanding India	2
	CC-3	Health & Wellness, Yoga Education, Sports & Fitness	2
	IRC-1	Introductory Regular Course-1	3
	IVS-1A	Introductory Vocational Studies-1	3
	MJ-1	Major paper 1 (Disciplinary/Interdisciplinary Major)	6
II	CC-4	Language and Communication Skills (English)	6
	CC-5	Mathematical & Computation Thinking Analysis	2
	CC-6	Global Citizenship Education & Education for Sustainable Development	2
	IRC-2	Introductory Regular Course-2	3
	IVS-1B	Introductory Vocational Studies-2	3
	MJ-2	Major paper 2 (Disciplinary/Interdisciplinary Major)	6
III	CC-7	Environmental Studies	3
	CC-8	Digital Education (Elementary Computer Applications)	3
	CC-9	Community Engagement & Service (NSS/ NCC/ Adult Education)	3
	IRC-3	Introductory Regular Course-3	3
	IAP	Internship/Apprenticeship/ Project	4
	MJ-3	Major paper 3 (Disciplinary/Interdisciplinary Major)	6
IV	MJ-4	Major paper 4 (Disciplinary/Interdisciplinary Major)	6
	MJ-5	Major paper 5 (Disciplinary/Interdisciplinary Major)	6
	MN-1	Minor Paper 1 (Disciplinary/Interdisciplinary Minor)	6
	VS-1	Vocational Studies-1 (Minor)	4

V	MJ-6	Major paper 6 (Disciplinary/Interdisciplinary Major)	6
	MJ-7	Major paper 7 (Disciplinary/Interdisciplinary Major)	6
	MN-2	Minor Paper 2 (Disciplinary/Interdisciplinary Minor)	6
	VS-2	Vocational Studies 2 (Minor)	4
VI	MJ-8	Major paper 8 (Disciplinary/Interdisciplinary Major)	6
	MJ-9	Major paper 9 (Disciplinary/Interdisciplinary Major)	6
	MN-3	Minor Paper 3 (Disciplinary/Interdisciplinary Minor)	6
	VS-3	Vocational Studies 3 (Minor)	4
VII	AMJ-1	Advance Major paper 1 (Disciplinary/Interdisciplinary Major)	6
	AMJ-2	Advance Major paper 2 (Disciplinary/Interdisciplinary Major)	6
	RC-1	Research Methodology	6
	RC-2	Research Proposal	4
VIII	AMJ-3	Advance Major paper 3 (Disciplinary/Interdisciplinary Major)	6
	AMJ-4	Advance Major paper 4 (Disciplinary/Interdisciplinary Major)	6
	RC-3	Research Internship/Field Work	4
	RC-4	Research Report	4
	VSR	Vocational Studies (Associated with Research)	2
		Total Credit	176

Abbreviations:

CC Common Courses

IRC Introductory Regular Courses

IVS Introductory Vocational Studies

IAP Internship/Apprenticeship/ Project

VS Vocational Studies

MJ Major Disciplinary/Interdisciplinary Courses

MN Minor Disciplinary/Interdisciplinary Courses

AMJ Advance Major Disciplinary/Interdisciplinary Courses

RC Research Courses

VSR Vocational Studies associated with Research

SEMESTER WISE COURSES IN HOME SCIENCE FOR FYUGP

2022 onwards**Table 7: Semester wise Examination Structure in Discipline Courses:**

Semester	Common, Introductory, Major, Minor, Vocational & Internship Courses		Examination Structure			
	Code	Papers	Credits	Mid Semester Theory (F.M.)	End Semester Theory (F.M.)	End Semester Practical/ Viva (F.M.)
I	MJ-1	Basics of Food Science and Nutrition	6	15	60	25
II	MJ-2	Fundamentals of Human Development	6	15	60	25
III	MJ-3	Introduction to Textiles	6	15	60	25
IV	MJ-4	Early Childhood Care and Education	6	15	60	25
	MJ-5	Fundamentals of Clothing Construction	6	15	60	25
V	MJ-6	Resource Management Concept and Context	6	15	60	25
	MJ-7	Communication and Extension	6	15	60	25
VI	MJ-8	Family Finance and Consumer Behaviour	6	15	60	25
	MJ-9	Family Meal Management	6	15	60	25
VII	AMJ-1	A. Dietetics B. Childhood and Adolescence C. Fashion Marketing and Merchandising D. Planning and Designing for Interior Space E. Communication Model in Extension	6	15	60	25
	AMJ-2	A. Nutrition for Health and Physical Fitness B. Adulthood and Aging C. Apparel Construction D. Principles of Interior Design E. Extension Management	6	15	60	25
	RC-1	Research Methodology	6	25	75	---
	RC-2	Research Proposal	4	25	75	---
VIII	AMJ-3	A. Food Safety, Sanitation and Hygiene B. Interpersonal Relationship and Family Dynamics C. Textile Design and Illustration D. Designing and Furnishing Life Spaces E. Communication for Development	6	15	60	25
	AMJ-4	A. Public Health Nutrition B. Gender, Society and Human Development C. Dyeing, Printing and Finishing of Textiles D. Creative Applied Arts E. Community Development	6	15	60	25
	RC-3	Research Internship/Field Work	4	---	---	100
	RC-4	Research Report	4	---	---	100
	VSR	Vocational Studies (Associated with Research)	2	---	---	100
		Total Credit	98			

Table 8: Semester wise Course Code and Credit Points:

Semester	Common, Introductory, Major, Minor, Vocational & Internship Courses		Examination Structure			
	Code	Papers	Credits	Mid Semester Theory (F.M.)	End Semester Theory (F.M.)	End Semester Practical/ Viva (F.M.)
I/ II/ III	IRC	Introductory Home Science	3	---	100	---
IV	MN-1	Nutrition: A Lifespan Approach	6	15	60	25
V	MN-2	Current Concerns in Public Health Nutrition	6	15	60	25
VI	MN-3	Care and Well-Being in Human Development	6	15	60	25
		Total Credit	21			

AIMS OF BACHELOR'S DEGREE PROGRAMME IN HOME SCIENCE

The aim of bachelor's degree programme in Home Science is intended to provide:

1. **Basic Concept:** The fundamental concepts and philosophical foundation of each course need to be discussed.
2. **Understanding Landscape:** An understanding of landscape at different levels needs to be discussed and understood for a thorough knowledge of spatial dimensions.
3. **Understanding Ecosystem Structure and Potential:** To comprehend the dynamic dimensions of human and ecosystem relationships.
4. **Human Perception and Behaviour:** Learning human perception and behaviour to acquire the geographical knowledge evolved over time, is essential to improve decision making process.
5. **Identification of Critical Problems and Issues:** Detection and identification of the critical problems and spatial issues are essential for sustainable development.
6. The aims of the Home Science are also to:
 - a. Enable students with knowledge, skills, attitudes and values to do community work in all areas of Home Science
 - b. Ensure global competitiveness and excellence in theory and research.
 - c. Prepare the students for master's program in their respective specialisation.
 - d. Train the students to take science from lab to community to improve quality of life of people.
 - e. Demonstrate systematic, extensive and coherent knowledge in one of the five disciplines of Home Science Namely Food and Nutrition, Human Development and Childhood Studies, Development Communication and Extension, Resource Management and Design Application, and Fabric and Apparel Science.
 - f. Ensure basic understanding of all five areas to be able to work in national development programs with multi-disciplinary acumen.
 - g. Demonstrate skill in profession, community outreach, policy and research in their specialization area.
 - h. Demonstrate community and laboratory-based data collection, analysis and interpretation.
 - i. Enhance communication skills for research findings and critique of life processes in community education.
 - j. Demonstrate subject related skills for employment opportunities.

PROGRAM LEARNING OUTCOMES

The programme learning outcomes relating to Honours/Research Degree in Home Science:

1. Understand and appreciate the role of interdisciplinary sciences in the development and well-being of individuals, families and communities
2. Understand the sciences and technologies that enhance the quality of life of people
3. Acquire professional and entrepreneurial skills for economic empowerment of self in particular, and community in general
4. Develop professional skills in food, nutrition, textiles, housing, product making, communication technologies and human development
5. Take science from the laboratory to the people and enhance quality of life.
6. It is also suggested that after the completion of FYUGP Hons./Research, students should be able to demonstrate the knowledge obtained in such way so that they can explore the employability options and service to the society.

SEMESTER I

I. MAJOR COURSE –MJ 1:

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75

Pass Marks: Th (SIE + ESE) = 30

Instruction to Question Setter for

Semester Internal Examination (SIE 10+5=15 marks):

There will be **two** groups of questions. Question No.1 will be **very short answer type in Group A** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be **two** groups of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

BASICS OF FOOD SCIENCE AND NUTRITION

Theory: 60 Lectures

Course Description

The course “Basics of Food Science and Nutrition” aims at developing the basic understanding of food and nutrition; it’s the effect on human health and newer advances in food technology. This course encompasses the physiological, biochemical and social aspects of food and discusses the relationship between metabolites and human health. Moreover, the Course is focused on the advances in the most emerging area of Applied Science of Nutraceuticals (where food is the medicine) and provides a detailed insight into understanding the composition, molecular interaction and bio mechanisms of food metabolites. The knowledge and skills to utilize food and nutrients are as the powerful tools for physical, mental and social well-being.

Learning Objectives:

1. Study the different methods of cooking foods
2. Obtain knowledge of different food groups, their composition and nutrients present in the foods.
3. Understand the vital link between foods, nutrition and health
4. Gain knowledge on functions, requirements and effects of deficiency of nutrients

Learning Outcome:

A successful completion of this course will enable students to

1. Summarize and critically discuss and understand both fundamental and applied aspects of Food Science and nutrition and Food Production
2. Able to explain functions of specific nutrients in maintaining health
3. Identifying nutrient specific force and apply the principles from the various factors of foods and related disciplines to solve practical as well as Real world problems
4. Use current information Technologies to locate and apply evidence-based guidelines and protocol and get imported with critical thinking to take leadership roles in the field of health, diet special nutritional needs and nutritional counselling.

Course Content**Unit-I. Introduction of Food Groups, Food Pyramid and Cooking Methods (12 Lectures)**

Definition and Terms used in Food Science and Nutrition. Health, Food, Nutrition, Nutrients: Macronutrients (Carbohydrates, Proteins and lipids) and Micronutrients (Vitamins and Minerals), and Malnutrition. Various classifications of Foods and Food Groups.

Definition, Classification and Functions of Foods, Basic Food Groups and Need for Grouping Foods and Application of Food Groups in Planning Adequate/Balanced Diets Culinary terms and Methods of Cooking

An Overview of culinary terms

Different Modes of heat transfer like Radiation, Conduction and Convection

Moist heat methods like Boiling, Simmering, Poaching, Steaming, Pressure cooking

Dry heat methods: Air as medium of cooking: Grilling, broiling, roasting, Baking,

Fat as medium of cooking: Sautéing, Shallow fat frying, Deep fat frying

Combined (Moist and dry) Methods: Braising, Stewing

Other cooking methods: -Microwave cooking and Solar cooking.

Advantages and Disadvantages of Cooking methods

Unit-II. Nutritional Significance of Different Food Groups (12 Lectures)

Basic Concepts, classification, Composition, nutritive value and Role in Cookery

Cereals and Cereal Products-

Types of cereals: wheat, rice, millets,

Cereal Products-Flaked rice, puffed rice, wheat flour.

Principles and properties of Cereals and its utility: Germination (Amylase Rich Foods- ARF), Fermentation, Parboiling, Gelatinization, Dextrinization, Gluten formation)

Pulses and Legumes,

Fruits and Vegetables,

Salt, Sugar and Jaggery,

Nuts, oils and Oil seeds

Milk and Milk Products including Fortified milk & its importance

Eggs-Basic structure of an egg and biological value, Quality evaluation and grading of eggs

Meat, poultry and fish

Spices & Condiments – their importance and functional properties

Unit III- Macronutrients (12 Lectures)

Definition, Classification, Dietary Sources, Functions, Recommended Dietary Allowances, Clinical signs and symptoms of Deficiency diseases and Excess of Energy, Carbohydrates, Proteins, Lipids, Water

Unit IV- Minerals (12 Lectures)

Definition, Classification, Distribution of minerals in the body.

Functions, sources, requirements and effects of deficiencies of Minerals: Calcium, Phosphorus, Iron, Iodine, Zinc, Fluorine, Copper, Magnesium, Sodium, Potassium, Selenium.

Unit V- Vitamins (12 Lectures)

Classifications, functions, sources, Clinical signs and symptoms of deficiency, requirements of Fat Soluble Vitamins - A, D, E and K

Water Soluble, Vitamins-B Complex Vitamins- Thiamine, Riboflavin, Niacin, Pyridoxine, Folic acid, Cyanocobalamin and Vitamin C

Recommended Readings:

1. Maney S (2008). Foods, Facts and Principles, 3rd Edition Published by Wiley Eastern, New Delhi.
 2. Usha Chandrasekhar (2002) Food Science and Application in Indian Cookery, Phoenix Publishing House P. Ltd., New Delhi.
 3. Raina U, Kashyap S, Narula V, Thomas S Suvira, VirS, Chopra S (2010) Basic Food Preparation: A Complete Manual, 4th Edition, Orient Black Swan Ltd, Mumbai.
 4. Srilakshmi, B. (2017) Nutrition Science, New Age International (P) Ltd., New Delhi,
 5. Mahtab, S. Bamji, Kamala Krishnasamy, Brahmam G.N.V (2012) Text Book of Human Nutrition, Third Edition, Oxford and IBH Publishing Co. P. Ltd., New Delhi.
 6. Sunetra Roday (2017). Food Science and Nutrition, Oxford University Press, New Delhi.
 7. Longvah, T, Ananthan, R., Bhaskarachary, K., Venkaiah, K (2017). Indian Food Composition Tables (IFCT), Indian Council of Medical Research, National Institute of Nutrition, Hyderabad
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HOME SCIENCE PRACTICAL- MJ 1 LAB**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lecture Hrs.**

1. Market survey of locally available food items like cereals, pulses, fruits and vegetables, milk and milk products, fats and oils, nuts and oilseeds, sugar and jaggery, meat, fish, and poultry and miscellaneous food items like biscuits, jams, jellies, ketchup etc. and their cost
2. Classify foods on the basis of nutrients: -Protein, Iron, Calcium, Vitamin A, Vitamin C
3. Controlling techniques: Weights and measures - standard and household measures for raw and cooked foods
4. Weights and Measures, Determination of Edible Portion of Foods, preparing market order and table setting
5. Food Preparation, understanding the principals involved, nutritional quality and portion size of 5-7 commonly consumed recipes in each food group
 - Cereals: rice, pulao, Roti, chapathi, paratha, poori, pastas etc
 - Pulses: Whole, dehusked- Dal, sambar, kootu, Chole, Rajmah, etc
 - Vegetables: Dry preparations, Curries
 - Milk and milk products: Kheer, Custard,
 - Meat, fish and poultry preparations
 - Egg preparations- Boiled, poached, fried, scrambled, omelettes, egg pudding

Recommended Readings:

1. Maney S (2008). Foods, Facts and Principles, 3rd Edition Published by Wiley Eastern, New Delhi.
 2. Usha Chandrasekhar (2002) Food Science and Application in Indian Cookery, Phoenix Publishing House P. Ltd., New Delhi.
 3. Raina U, Kashyap S, Narula V, Thomas S Suvira, VirS, Chopra S (2010) Basic Food Preparation: A Complete Manual, 4th Edition, Orient Black Swan Ltd, Mumbai.
 4. Srilakshmi, B. (2017) Nutrition Science, New Age International (P) Ltd., New Delhi,
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SEMESTER II

I. MAJOR COURSE- MJ 2:

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75	Pass Marks: Th (SIE + ESE) = 30
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Instruction to Question Setter forSemester Internal Examination (SIE 10+5=15 marks):

There will be **two** groups of questions. **Question No.1** will be **very short answer type in Group A** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be **two** groups of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

FUNDAMENTALS OF HUMAN DEVELOPMENT

Theory: 60 Lectures**Course Description**

The course introduces students to the concept of human development. It then moves on to discuss the various schools of thought that gave rise to different theoretical frameworks to understand human development. It explains basic developmental principles and factors like heredity and environment which influence growth and development. It deals with development during different stages of life span, starting from conception to old age. It further discusses the principles of working with human beings and methods of studying human development.

Learning Objectives

1. Develop an understanding about the need and importance of studying human growth and development across life span
2. Learn about the biological and environmental factors that affect development
3. Learn about the characteristics, needs and developmental tasks of different stages in the human life cycle
4. Understand the different theoretical frameworks fundamental to HDFS
5. Learn about the classic human development theories
6. Develop professional attitude for working with human beings across life span

Learning Outcomes

1. Explain the need and importance of studying human growth and development across life span.
2. Identify the biological and environmental factors affecting human development.
3. Describe the characteristics, needs and developmental tasks of different stages in the human life cycle
4. Explain the broad theoretical perspectives and frameworks of HDFS

Course Content**Unit I Theoretical Frameworks and Theories****(12 Lectures)**

Theoretical Frameworks

Biological-maturational

Environmental learning
 Constructivist
 Culture-contextual

Overview of theories of human development

Freud's theory of psychosexual development
 Erikson's theory of psychosocial development
 Piaget's theory of cognitive development
 Learning theories- Skinner

Indian Thinkers (selected) on Child Development

Mahatma Gandhi
 Rabindranath Tagore
 Gijubhai Badeka and Tarabai Modak

Unit II: Introduction to Human Development

(10 Lectures)

Definition, History
 Scope and importance of Human Development in contemporary society
 Domains, Stages and Contexts of development,
 Principles of Growth and Development,

Unit III: Prenatal Development and Birth Process

(10 Lectures)

Reproductive health
 Conception, Pregnancy, Prenatal Development – stages, factors affecting, diagnostics techniques, Birth Process
 Stages of birth
 Types of delivery (natural, c-section, breech, home vs. assisted delivery)
 Capacities and Immediate care of newborn, adjustments made by newborn, types of feeding - natural and artificial, weaning, infant and mother mortality and morbidity, immunization schedule.

Unit IV: Stages in the Human Life Cycle: An Overview

(14 Lectures)

Characteristics, needs and developmental tasks of individuals in relation to physical, cognitive, socio- emotional domains of development in the following life stages:

Neonate (birth-1 month)
 Infancy (1 month-2 years)
 Early childhood (2-6 years)
 Middle childhood (6-11 years)
 Adolescence (12-18 years)
 Emerging and Young adulthood (18-35 years), diversity of roles and relationships
 Middle age / mature adulthood (35-60 years)
 Late adulthood / Old age (60 years and above)- Parenting and Grand Parenting

UNIT V: Professional Skills for Working with Human Beings

(14 Lectures)

Research Methods:
 Case study, interview, naturalistic observation, laboratory observation, experimental methods, cross sectional and longitudinal and sequential studies.
 Ethics of research with human subjects – written consent, privacy, no harm, no plagiarism, debriefing

Self-awareness and contextual sensitivity

Building professional attitudes

Understanding development in different contexts and circumstances

Developing contextual sensitivity and preparation for field experiences

Personal and Professional issues involved in a career as HDFS professional
(Identify entry level jobs, career path and job tasks/requirements)

Recommended Readings:

1. Berk, L.E. (2005). Child development (5th ed.). New Delhi: Prentice Hall.
 2. Bhangaokar, R., & Kapadia, S. (in press). Human Development Research in India: A historical overview. In G. Misra (Ed.), *Hundred years of Psychology in India*. New Delhi: Springer.
 3. Feldman, R., & Babu, N. (2009). *Discovering the life span*. New Delhi: Pearson
 4. Kakar, S. (1998). *The inner world. Psychoanalytic study of childhood and society in India*. Delhi: Oxford University Press.
 5. Kapadia, S. (2011). Psychology and human development in India. Country paper. *International Society for the Study of Behavioural Development Bulletin Number 2, Serial No. 60, pp.37-42*.
 7. Keenan, T., Evans, S., & Crowley, K. (2016). *An introduction to child development*. Sage.
 8. Lightfoot, C., Cole, M., & Cole, S. (2012). *The development of children* (7thed.). New York: Worth Publishers.
 10. Santrock, J. (2017). *A topical approach to life span development* (9th ed.). New NY.: McGraw-Hill Higher Education.
 11. Singh, A. (2015). *Foundations of Human Development: A life span approach*. ND: Orient Black Swan.
 12. Walsh, B.A., Deflorio, L., Burnham, M.M., & Weiser, D.A. (2017). *Introduction to Human Development and Family Studies*. NY: Routledge
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HOME SCIENCE PRACTICAL- MJ 2 LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures Hrs.**

1. Preparation of an album on developmental milestones of children.
2. Visit to maternity ward and ante-natal clinics.
3. Visit to an Anganwadi
4. Plotting growth monitoring chart and interpretation.
5. Observation of motor activities of a toddler.
6. Visit to an old age home
7. Carry out case studies to know more about the different life stages, e.g., school going children, adolescents, middle adults.
8. Observations of infant child rearing practices in families from different social classes.
9. Interviews of adolescent girls and boys to understand their life style and behaviour based on gender and socio-economic status

Recommended Readings:

1. Keenan, T., Evans, S., & Crowley, K. (2016). *An introduction to child development*. Sage.
 2. Lightfoot, C., Cole, M., & Cole, S. (2012). *The development of children* (7thed.). New York: Worth Publishers.
 3. Santrock, J. (2017). *A topical approach to life span development* (9th ed.). New NY.: Mcgraw-Hill Higher Education.
 4. Singh, A. (2015). *Foundations of Human Development: A life span approach*. ND: Orient Black Swan.
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SEMESTER III

I. MAJOR COURSE- MJ 3:

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75	Pass Marks: Th (SIE + ESE) = 30
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Instruction to Question Setter for

Semester Internal Examination (SIE 10+5=15 marks):

There will be **two** groups of questions. Question No.1 will be **very short answer type in Group A** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be **two** groups of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

INTRODUCTION TO TEXTILES

Theory: 60 Lectures

Course Description

An introduction to Textiles course covers the fundamental of the textiles along with the physical analysis of the fiber, yarn and fabric of different textiles. The course is designed to help the students understand the basics of textiles, the processes and technology used for manufacturing it. It explains about the properties and end uses of fiber, yarn, fabric and its co-relation. This knowledge will be base for "Textile designing", "Garment technology", "Fashion designing", "Interior designing" courses. The course will be useful to those entering in textile related manufacturing, design and product development, selection, sourcing, quality control and research.

Course Objectives

1. Get acquainted with textiles technical terms, the properties, identification, production and uses of various textile fibers, fabrics.
2. Develop the skills for identification of fibers, yarn and fabrics
3. Understand different types of yarns, weaves, selection of textiles and finishes, of laundry and stain removal.
4. Learn the methods of dyeing, printing, and finishing of fabrics.

Learning Outcome

1. Develop an understanding of concepts and basics of textiles.
2. Develop critical understanding of the techniques of fibre, yarn and fabric manufacture.
3. Identify the fibers, yarn and fabrics for its appropriate use.
4. Recommend the dyes, printing and finishing of textiles for specific use

Course Content

Unit-I. Introduction to Textiles

(2 Lectures)

Definition of textile fibers and terminology
Classification of textile fibers
Basic unit and polymer bonds in textile fiber

Physical and Chemical properties of fibers

Unit-II. Fibers**(12 Lectures)**

Natural fibers (Morphology and polymer system, production, properties and end uses)

Cellulosic (Cotton, Jute)

Protein (Silk, Wool)

Man-made fibers (Manufacturing process, chemical spinning, properties and end uses)

Viscose Rayon

Acetate Rayon

Nylon

Polyester

Acrylic

Elastomeric

Unit-III. Yarn and Fabric**(12 Lectures)**

Yarns

Classification of yarns: simple, ply and cord

Types of Yarn: Textured and novelty

Twist in yarn: “s” and “z”, number of twist

Properties of yarn: strength, extension, fineness, length, diameter, composition.

Woven fabrics

Looms and its part

Classification Basic weaves Plain, Twill, Satin

Novelty weaves – Pile, Leno-Gauze, Honeycomb

End uses of fabrics with different weaves

Knitted fabrics

Types and terminology used

Hand knitting

Machine knitting

Nonwoven fabrics

Unit-IV. Coloration and Finishing of Textiles**(10 Lectures)**

Dyes

Terms related to dyes

Classification of dyes

Components of dyeing and its relation to dye material (auxiliaries, temperature and dye bath)

Direct, Acid, Basic and Reactive dyes

Printing

Styles of printing

Modern methods of printing

Pre-preparation for printing (printing paste, printing table)

Finishing

Basic finishes - Singeing, Scouring, Bleaching, Sizing, Weighting, Degumming, Mercerizing, Sanforizing and Calendaring

Special finishes

Unit-V. Laundry, Storage and Care of Textiles**(8 Lectures)**

Introduction, Types, Uses

Water, Soaps, Detergents

Methods and care during laundering of different textiles

Unit VI- Traditional Textiles of India**(16 Lectures)**

Textile art of India, History and Classification of Traditional Indian Textiles- Painted, Printed, Resist Dyed, woven and Embroidered.

Woven textiles of Northern India- (Origin, Material, Techniques)

Rajasthan- Kota Doria

Gujrat- Sujani, Tangaliya

Madhya Pradesh- Chanderi, Maheshwari

Uttar Pradesh- Brocade

West Bengal- Dacca Muslin, Baluchari, Tangail

Shaawl from Kshmir, Assam and Nagaland

Woven textiles of southern India- (Origin, Material, Techniques)

Maharashtra- Paithani, Himroo

Andhra Pradesh and Telanagana- Dharmavaram, Vrnkatagiri, Gadwal, Narayanpeth

Karnataka- Irkal, Khann

Tamilnadu- Kanjivaram

Recommended Reading:

1. Booth, J.E. (1996). *Principles of Textile Testing*. New Delhi: CBS Publishers & Distributors Pvt. Ltd.
2. Corbman, P.B. (1983). *Textiles: Fibre to Fabric*. McGraw-Hill Publishers.
3. Collier, B.J., & Epps, H.H. (1998). *Textile testing and analysis*. Prentice Hall Publishers.
4. Dantyagi, S. (1996). *Fundamentals of Textiles and their Care*. India: Orient Black swan Private Limited.
5. D'Souza, N. (2014). *Fabric Care*. New Delhi: New Age International Publishers.
6. Greaves, P.H., Saville, B. P. (1995). *Microscopy of textile fibres*. bios Scientific Publishers
7. Gohl, E., Vile sky, L. (2003), *Textile Science: an explanation of fiber properties* (2 edition), New Delhi.
8. Hollen, R. N., Saddler, J., & Langford, A. (1979). *Textiles*. Macmillan Publishers.
9. Joseph, M. (1992), *Introductory Textile Science*. Sixth edition, California: Harcourt College Publishers
10. Kadolph, S.J. 2009. *Textiles*. Tenth edition. New Delhi: Dorling Kindersley (India)
11. Madhulika, P. (2013). *Weaving*. New Delhi: Random Publishing.
12. Mahapatra, N.N. (2015). *Textile Technology*. New Delhi: A.P.H. Publishing Corporation.
13. Needles, L.H. (1986). *Textile Fibers, Dyes, Finishes, and Processes*. USA, New Jersey: Noyes publications.
14. Rastogi, D., & Chopra, S. (2017). *Textile Science*. India: Orient Blackswan Private Limited.
15. Robert, R. & Mather, R. H. (2015). *The Chemistry of Textile Fibers*. Cambridge: RSC Publishers.
16. Sekhri, S. (2011). *Textbook of Fabric Science: Fundamentals to Finishing*. India: PHI Learning Pvt. Ltd.
17. Smith, J.L. (2015). *Textile Processing: Printing Dyeing Finishing*. Chandigarh: Abhishek Publication.
18. Tyagi, A. (2016). *Handbook of Fashion and Textile Design*. New Delhi: Sonali publication.
19. Wynne, A., (1997). *Textiles, The Motivate Series Mcmillain Education Ltd. ,London*.

HOME SCIENCE PRACTICAL- MJ 3 LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 hrs. Lectures**

- Fiber identification: Identification of natural and manmade fibers by following three methods
 - i.e. microscopic test, burning test and solubility test.
- Study of Yarn: Detail study of the ply of yarn, count of yarn using beesley yarn count balance, twist by twist tester, crimp by crimp tester and strength of the yarn by single yarn or lea strength tester
- Characteristics of Fabric (following standards): Fabric count using pick glass, crimp using crimp tester, shrinkage, thickness, tensile strength (breaking strength and elongation) using tensile strength tester, tearing strength using tearing strength tester, bursting strength using bursting strength tester, weight (GSM) of the fabric.
- Dyeing: Dyeing of yarn/fabric with different classes of dyes
 - Dyeing of cotton yarn and fabric with direct dyes
 - Dyeing of silk, wool and nylon yarn and fabrics with basic and acid dyes.
 - Dyeing of polyester yarn and fabric with disperse dyes.
- Printing of fabrics using:
- Direct style - block, stencil and screen
- Resist style - Tie & Dye, Batik
- Care of Textiles
- Stain removal
- Mending of textiles
- Starching using different types of starches

Reference Books

- Booth, J.E. (1996). *Principles of Textile Testing*. New Delhi: CBS Publishers & Distributors Pvt. Ltd.
- Collier, B.J., & Epps, H.H. (1998). *Textile testing and analysis*. Prentice Hall Publishers.
- Dantyagi, S. (1996). *Fundamentals of Textiles and their Care*. India: Orient Black swan Private Limited.
- Greaves, P.H., Saville, B. P. (1995). *Microscopy of textile fibres*. Bios Scientific Publishers
- Hollen, R. N., Saddler, J., & Langford, A. (1979). *Textiles*. Macmillan Publishers.
- Madhulika, P. (2013). *Weaving*. New Delhi: Random Publishing.
- Rastogi, D., & Chopra, S. (2017). *Textile Science*. India: Orient Blackswan Private Limited.
- Robert, R. & Mather, R. H. (2015). *The Chemistry of Textile Fibers*. Cambridge: RSC Publishers Pvt. Ltd.
- Smith, J.L. (2015). *Textile Processing: Printing Dyeing Finishing*. Chandigarh: Abhishek Publication.

SEMESTER IV

I. MAJOR COURSE- MJ 4:

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75	Pass Marks: Th (SIE + ESE) = 30
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Instruction to Question Setter forSemester Internal Examination (SIE 10+5=15 marks):

There will be **two** groups of questions. Question No.1 will be **very short answer type in Group A** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be **two** groups of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

EARLY CHILDHOOD CARE AND EDUCATION

Theory: 60 Lectures**Course Description**

This course explores the range of issues related to Early Childhood Care and Education (ECCE). The focus of the course is on understanding the importance of early years and early interventions. The course further aims to familiarize students with indigenous (Indian) models of ECCE, pedagogical approaches and programmatic trends as they evolved in the Indian context.

Course Objectives

1. Know the importance of early childhood years and significance of intervention programs for early childhood development.
2. Develop insight into the historical developments – global and Indian including the current programs and policies in ECCE.
3. Develop awareness of ECCE programs in different contexts in India.
4. Familiarize with indigenous (Indian) models of Early Childhood Education and explore the current early childhood research, theoretical trends and issues. To learn about different curriculum models and pedagogical approaches in early childhood education.
5. Impart knowledge on programme planning for young children.

Learning Outcome

1. Explain the importance of early childhood years and significance of intervention programs for early childhood development.
2. Describe the historical developments – global and Indian including the current programs and policies in ECCE.
3. Identify various indigenous (Indian) models of Early Childhood Education and apply it to understand the current early childhood research, theoretical trends and issues.
4. Analyze curriculum models and pedagogical approaches in early childhood education.
5. Create developmentally appropriate programs for young children.

Course Content**Unit-I Introduction to Early Childhood Care and Education****(10 Lectures)**

Concept, meaning, scope and significance of ECCE

Developmental perspective

Neuroscience perspective

Human rights perspective

Expansion from ECE to ECCE to ECD.

Aims and objectives of ECCE– General and specific

Types of ECCE service delivery – Formal and informal; Government funded, Philosophy oriented, Laboratory nursery school, Franchise oriented

Unit-II ECCE in India**(14 Lectures)**

History of Early Childhood Care and Education in India.

Overview of ECCE in pre and post-independence period. Preschool education in the pre and post-independence era (very brief). How the international trends have influenced the national trends.

Contributions of educational philosophers: global and Indian perspective- views of educationists and philosophers: Comenius, Rousseau, Pestalozzi, Froebel, Robert Owen, McMillan Sisters, John Dewey and Montessori, Sri Aurobindo, Tagore, Gijubhai Badheka, Tarabai Modak, Mahatma Gandhi

Present status of young children in India.

Policy perspectives in ECCE

Recent Policies in ECCE-Variou Education commissions of India:

National Policy on Education (1986) Programmes / schemes and innovations in ECCE –ICDS, Balwadis, mobile crèches

National Curriculum Framework 2005

National Policy on Early Childhood Care and Education 2013

Curriculum Framework for Early Childhood Care and Education 2012/2013 New Education Policy, 2020

Unit-III Early Childhood Curriculum**(12 Lectures)**

Definition and concept of curriculum

Curriculum approaches – subject centered, learner centered, community centered

Developmentally Appropriate Practice (DAP) – definition and core considerations, myths and consequences of developmentally inappropriate ECE practices

Components and essential features of developmentally appropriate ECCE curriculum Planning a developmentally appropriate curriculum- approaches, key principles and types of plans

Unit-IV Play and its Importance**(12 Lectures)**

Play and its characteristics

Theories of play- surplus energy theory, recreational theory, recapitulation theory Stages and types of play

Role of play in overall development of children

Teacher's role in creating environment and promoting play

Use of play way approach in the curriculum for young children.

Unit-V Innovative ECCE Models**(12 Lectures)**

Nutan Bal Shikshan Sangh, India
 Daxinamurti Bal Mandir, India
 Gram Bal Shikshan Kendra, India
 Lok Jumbish Program, India
 Mirambika, India
 Rishi Valley, India
 High/Scope Model, USA
 Reggio Emilia Approach, Italy
 Te Whāriki Model, New Zealand
 The ECEC Model, Sweden
 Seto Gurans National Child Development Services, Nepal

Recommended Readings

1. Agarwal, J. C. (2007). *Early childhood care and education: principles and practices*. New Delhi: Shipra
 2. Agarwal, S.P. and Usmani, M. (2000). *Children's education in India: from vedic times to twenty first century* New Delhi: Shipra.
 3. Canning, N. (2010) *Play and practice in the early years: Foundation stage*. New Delhi: Sage.
 4. Durlak, J.A. (1995). *School based prevention programmes for children and adolescents*. N.Y.: Sage.
 5. Fleer, M. (2010). *Early learning and development: Cultural–historical concepts in play*. Cambridge: Cambridge University Press.
 6. Kaul, V. (2009). *Early childhood education programme*. National Council of Educational Research and Training, New Delhi.
 7. OECD. (2004). *Curricula and pedagogies in early childhood education and care*. Retrieved from <http://www.oecd.org/education/school/31672150.pdf>
 8. Purkait, B.R. (2005). *Milestones in modern Indian education*. Kolkata: New Central Book Agency.
 9. Swaminathan, M.(ed.) (1998). *The first five years: A critical perspectives on early childhood care and education in India*. New Delhi: Sage.
 10. Sarangapani, P.M. (2009). Quality, feasibility and desirability of low cost private schooling: what is the evidence? *Economic & Political Weekly*, 44(43), 67–69.
 11. Sarangapani, P.M. (2010). Comparative education in India: Why it is missing and why we need it. *Journal of Education Planning and Administration* 24(4): 363-378.
 12. Saraswathi, T.H., Menon, S. & Madan, A. (eds.) (2018) *Childhoods in India traditions, trends and transformations*. New Delhi. Routledge.
 13. Sharma, K.K., & Miglani, P. (2016). *Gender, school and society*. Patiala: Twenty First Century Publications.
 14. Early Childhood Care and Education (n.d.) Retrieved from http://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/home_science/10_early_childhood_care_education_and_development/14_aurobindo_gijubhai_badheka_tarabai_modak/et/6716_et_et.pdf
 15. Singh, A. (1995). *Playing to learn: A training manual for early childhood education*. Chennai: M. S. Swaminathan Research Foundation.
 16. Venkataraman, B. (2009). Education for sustainable development. *Environment: Science and Policy for Sustainable Development*, 51(2), 8-10.
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HOME SCIENCE PRACTICAL- MJ 4 LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Observation of early childhood programs at government and non-governmental institutions.
2. List the activities for each domain to promote all round development in young children.
3. Plan and record activities and methods of playful interactions to foster development in children (birth –two years and two –six years)
4. Conduct workshops in any two of the following: Developing worksheets to teach readiness concepts Enhancing social and language skills, Music, movement and drama for children
5. Prepare a developmentally appropriate plan and its implementation
6. Methods and tools to assess progress of children and program
7. Prepare low cost play materials/equipment's

Reference Books

1. Agarwal, J. C. (2007). *Early childhood care and education: principles and practices*. New Delhi: Shipra
 2. Canning, N. (2010) *Play and practice in the early years: Foundation stage*. New Delhi: Sage.
 3. Durlak, J.A. (1995). *School based prevention programmes for children and adolescents*. N.Y.:Sage.
 4. Fleer, M. (2010). *Early learning and development: Cultural–historical concepts in play*. Cambridge: Cambridge University Press.
 5. Kaul, V. (2009). *Early childhood education programme*. National Council of Educational Research and Training, New Delhi.
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II. MAJOR COURSE- MJ 5:

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75**Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):***

There will be **two** groups of questions. Question No.1 will be **very short answer type in Group A** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be **two** groups of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

FUNDAMENTALS OF CLOTHING CONSTRUCTION**Theory: 60 Lectures****Course Description**

It is designed to develop skills in students related to clothing manufacturing techniques using appropriate tools and preparation of fabric for clothing construction. It deals with the components of garments, material selection and techniques of construction. The knowledge of fundamentals of clothing construction will enable the students to make sound decisions related to material resources through the application of clothing construction and application skills. This will prepare students for advanced studies and professional employment in the areas of clothing and textiles.

Course Objectives

1. Develop an understanding about the basics of clothing construction
2. Learn about the principals involved in clothing construction.
3. Know about various sewing equipment that are essential in a sewing room.
4. Learns to construct garment.
5. Develop skill in coordinating fabrics, patterns and supportive materials

Learning Outcome

A successful completion of this course will enable students to

1. Understand basic principles of clothing construction.
2. Comprehend the importance and function of clothes, Identify the common fabrics, utilize design components in garment construction, understands various garment construction process
3. Gain an insight of various sewing machines and other sewing equipment's available in the market, their functioning & common problems faced while usage
4. Co-ordinates fabrics, patterns and supportive materials and construct the garment

Course Content**Unit I Introduction to Clothing****(10 Lectures)**

History of Clothing. Origin of Clothing
Use of clothing among primitive people

Functions and theories of clothing
Clothing in relation to culture
Psychological aspects of clothing
Self-respect, self-enhancement, self-expression, gender desirability and individuality
Socio-psychological aspects of clothing among children
Significance of uniforms and national costumes.
Clothes for conformity, mobility and aesthetic appearance.
Terminology: Clothing, fabric, fashion, fad, silhouette, weaving, knitting, felting, plackets, brands, clothing symbolism, tradition,

Unit II Sewing Machines (10 Lectures)

Types of sewing machines -Mechanical Sewing Machine. Electronic Sewing Machine. Computerized or Automated Sewing Machine. Embroidery Machine.
Parts of sewing machine, Types and function Maintenance, Common problems and its remedies.
Tools and equipment used for clothing construction Measuring tool, Drafting Tool, Marking Tool, Cutting Tool, Stitching Tool, Pressing Tool,
Needles, threads and their relation to fabric, Types of needles for hand and machine sewing
Types of threads hand and machine sewing
Selection of right thread, needle for the fabric to be sewn.

Unit-III. Introduction to Clothing Construction (10 Lectures)

Anthropometric measurements Introduction and importance
Instruments used for anthropometric measurements Standardization and size charts.
Importance and use of size charts Size charts of child, woman and man Factors affecting selection of fabrics, Social factors, Economic factors, Physiological factors, Environmental factors.

Unit-IV. Design Components (10 Lectures)

Elements and Principles of Design Introduction
Basic elements of design, Basic principles of design
Relation between elements and principles of design to the Clothing and Fashion Color, line and texture in relation to: Age, Season, Occasion, Figure Type, and Complexion

Unit-V. Components of Garments (10 Lectures)

Garment Silhouettes
Introduction to basic Garments-Skirts. Blouses Pants
Introduction to Garment detailing for- Necklines, Fullness, Pockets, Seams, Sleeve, Yoke and Plackets.

Unit VI- Traditional Costumes of India (10 Lectures)

Traditional costumes of Northern India Jammu and Kashmir, Punjab, Haryana Traditional costumes of Western India Rajasthan, Gujarat, Maharashtra
Traditional costumes of Southern India Andhra Pradesh, Tamil Nadu, Kerala, Karnataka
Traditional costumes of Eastern India Orissa, West-Bengal, Assam, Nagaland, Meghalaya, Manipur, Arunachal, Mizoram, Tripura
Traditional costumes of Central India Uttar Pradesh, Madhya Pradesh and Bihar

Recommended Readings:

1. Armstrong, Pearson. (1995), Pattern making for Fashion Design, Fairchild Publication, New York 1995 (Indian Ed.)
 2. Cream, Penelope.,(1996), The Complete Book of Sewing - A Practical Step by Step Guide to Sewing Techniques, DK Publishing Book, New York ,
 3. Dorothy wood, the practical encyclopaedia of sewing, Anneess publishing Ltd, London.
 4. Holman, Gillian. (1997), Pattern Cutting Made Easy, BSP.
 5. Janace E. Bubonia. (2012), Apparel production terms and processes, Fairchild Books, New York.
 6. Kallal, Mary Jo, (1985), Clothing Construction, Mc Millan Publishing Company, New York.
 7. Norma Hollen, Jane Saddler, Anna L. Langford & Sara, J.,(1988) Textiles 6th ed., Macmillan Publication, New York
 8. Readers, Digest, Complete Guide to Sewing, The Reader's Digest Associations (Canada) Ltd. Montreal, Pleasantville, New York.
 9. Thomas, A, (1986), the Art of Sewing UBSPD Publishers Distributors Ltd. New Delhi.
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HOME SCIENCE PRACTICAL- MJ 5 LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Preparation of fabric for cutting
 - a. Preshrinking
 - b. Identification and straightening of Grain.
 2. Taking measurements directly from body
 3. Tools and Equipment used in Garment Construction: Squares and Scales, French curves – for armhole, necklines etc.
 4. Preparing sample of:
 5. Basic hand stitches- basting, back stitch, hemming visible/invisible, Lock stitch.
 6. Seams- plain seams and decorative seams
 7. Fullness
 - a. Darts-Single point, Fish dart
 - b. Tucks- Pin tucks, wide tucks, corded tucks, criss crossed tucks
 - c. Pleats- Knife, box, inverted box, accordion pleat
 - d. Gathers – Hand and machine
 - e. Shirring
 - f. Ruffles and frills
 8. Neckline finishes- Binding and facing
 9. Plackets: Faced and continuous bound
 10. Pockets: Patch, in seam pocket
 11. Snap button and fastener attachment
 12. Introduction to drafting method and stitching of the following garments.
 - a. Petticoat/ Apron/Kalidar Kurta
 - i. Drafting on paper
 - ii. Transferring pattern markings from paper
 - iii. Fabric cutting
 - iv. Stay stitching
 - v. Sewing on machine
 13. Preparation of portfolio with
 - a. Pictures of traditional textiles with the descriptive analysis
 - b. Pictures of the traditional costumes with constructional details.
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SEMESTER V

I. MAJOR COURSE- MJ 6:

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75	Pass Marks: Th (SIE + ESE) = 30
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Instruction to Question Setter for

Semester Internal Examination (SIE 10+5=15 marks):

There will be **two** groups of questions. Question No.1 will be **very short answer type in Group A** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be **two** groups of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

RESOURCE MANAGEMENT CONCEPT AND CONTEXT

Theory: 60 Lectures

Course Description

Resources and their management is the ultimate goal of all families. The Course introduces the conceptual and contextual meaning of resources and their management in micro level family settings in the changing world in a simple format with experiential learning to the learners. Presenting optimal initiatives and equipping students with appreciable management acumen to imbibe the contexts in their family system and the environment is the major scope.

Course Objectives

1. Learning to identify and manage the use of resources available for functional use
2. Comprehending the purpose of managing resources
3. Setting realistic goals and being practical and prudent in the use and management of limited resources by making intelligent decisions
4. Becoming money, time and energy conscious in daily living

Learning Outcome

1. Understanding on the concepts related to family resource management
2. Appreciation of the significance of management process in efficient use of resources
3. Imbibing nuances of human values and standards for successful management and decision making
4. Focus on management of human energy as a family resource

Course Content

Unit I Introduction to Resource Management in Family Settings

(12 Lectures)

Introduction to home management- meaning, definitions, conceptual framework, need and philosophy

Concept, definition, universality and scope of family resource management Approaches to resource management – family resources Vs home management Ethics in management of resources – essential qualities for success

Motivating factors in management – Values, Standards and Goals – meaning, types/ classification and influences.

Theories of Motivation- Maslow's hierarchy of needs theory; human wants – nature and role in management

Unit II Resources

(12 Lectures)

Concept, classification and characteristics of family resources Factors affecting utilization of family resources

Maximizing use of resources and resource conservation.

Natural resources: renewable and non – renewable resources, methods of harnessing renewable resources for residential use

Unit III Functions of Management: An Overview

(12 Lectures)

Decision Making- the crux of management, Types of decisions; factors of control, role of values, standards and goals in decision making process

Management process: Definitions and steps in management process: Planning, Controlling, Organizing and Evaluation

Significance of managing resources of the family

Relation of Family Resource Management to other areas of Home Science

Unit IV Resource Management Process

(12 Lectures)

Management process applicable to specific resources:

Money- sources of income, meaning of income and expenditure, steps in money management, Budgeting- budget items, methods of handling money

Time – concept of time schedule, time norms and peak loads

Energy – Types of effort (Manual, pedal, visual etc)., Concept of body posture, drudgery and fatigue, fatiguing activities, classification of activities (sedentary, moderate and heavy), use of labour saving devices in management of time and energy, methods of alleviating fatigue Principles of Work simplification, Mundel's Classes of Change, time and motion studies, working heights at different levels.

Unit V Ergonomics: Role in Management of Human Resources

(12 Lectures)

Ergonomics – concept and principles, work, worker and work environment relationship, role of work, workplace and equipment's (appliances) as sources of drudgery

Occupational health hazards – sources, problems and solutions

Waste management: home level solid and liquid waste management practices Application of Management Processes in: Event Planning & Execution

Recommended Readings:

1. Bhargava, B. (2005). *Family Resource Management and Interior Decoration*, Jaipur: Apple Printer and V. R. Printers
2. Deacon, R. F., and Firebaugh, F.M. (1975). *Home Management: Contexts and Concepts*. Boston: Houghton Mifflin Company.
3. Fitzsimmons, C. (1950). *The Management of Family Resources*. California: W. H. Freeman Co.
4. Gandotra, V., and Jaiswal, N. (2008). *Management of Work in Home*, New Delhi: Dominant Publishers and Distributors. (ISBN No. 81-7888-526-3)

5. Grandjean, E., and Kroemer, K.H.E. (1999). *Fitting the Task to the Human - A Text Book of Occupational Ergonomics*, New York: Taylor and Francis
 6. Gross. I.H., Crandall, E. W. and Knoll, M. M. (1980). *Management for Modern Families*. New Jersey: Prentice Hall Inc.
 7. Gross. I.H., and Crandall, E. W. (1967). *Management for Modern Families*. Delhi: Sterling Publishers.
 8. Koontz, H., and O' Donnell C. (2005), *Management – A Systems and Contingency Analysis of Managerial Functions*. New York: McGraw-Hill Book Company
 9. Kreitner. R. (2009/2010). *Management Theory and Applications*. India: Cengage Learning India Pvt Ltd (ISBN 13: 9788131511244)
 10. Nickell, P., Rice, A. S., and Tucker, S.P. (1976). *Management in Family Living*. New York: John Wiley & Sons Inc.
 11. Nickell, P., and Dorsey, J, M. (2002). *Management in Family Living*. New Delhi: CBS Publishers (ISBN13: 9788123908519)
 12. Rao V.S.P., and Narayana P.S. (2008). *Principles and Practices of Management*. New Delhi: Konark Publishers Pvt. Ltd. (ISBN 13: 9788122000283)
 13. Seetharaman, P., Batra, S., & Mehra, P. (2005). *An Introduction to Family Resource Management*. New Delhi: CBS Publishers & Distributors (ISBN 13: 9788123911861)
 14. Shukul, M., and Gandotra, V . (2006). *Home Management and Family Finance*. New Delhi: Dominant Publishers and Distributors. (ISBN No. 81-7888-403-8)
 15. Singh, S. (2007). *Ergonomics Integration for Health and Productivity*. New Delhi/ Udaipur: Himanshu Publication
 16. Swanson, B. (1983). *Introduction to Home Management*. New York: Macmillan Publishing Co. Inc.
 17. Varghese, M. A., Ogale. N. and Srinivasan K. (1985). *Home Management*. New Delhi: New Age International (P) Limited, Publishers (ISBN 13: 9780852269046)
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HOME SCIENCE PRACTICAL- MJ 6 LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lectures**

1. Comprehend and give a write up on values held and goals set – different age groups
2. Identify resources in and around a family, their use and benefits accrued: Prepare an Inventory
3. Harnessing natural resources: model making – solar devices, windmills, rainwater harvesting, water conservation measures
4. Conservation of community and natural resources for optimization: Portfolio
5. Identification and development of self as a resource.
 - a. SWOC analysis-who am I
 - b. Building Decision Making abilities through management games
 - c. Role play
 - d. Goal setting exercise for one academic year
6. Elucidate changing value systems in Indian conditions – pros and cons
7. Preparation of time plans for self and family
8. Drafting family budget for different income groups
9. Time and Motion Studies for simplifying work- Flow process chart etc.
10. Ergonomic analysis of different work, work places and appliances as sources of drudgery
11. Trial experiments on time and energy management using different household appliances
12. Determining working heights for different individuals at different levels
13. Planning an Event - management and evaluation, with reference to
 - a. Managerial process
 - b. Resource optimization - time, money, products, space, human capital and natural resources

Recommended Readings:

1. Fitzsimmons, C. (1950). *The Management of Family Resources*. California: W. H. Freeman Co.
2. Gandotra, V., and Jaiswal, N. (2008). *Management of Work in Home*, New Delhi: Dominant Publishers and Distributors. (ISBN No. 81-7888-526-3)
3. Grandjean, E., and Kroemer, K.H.E. (1999). *Fitting the Task to the Human - A Text Book of Occupational Ergonomics*, New York: Taylor and Francis
4. Gross, I.H., Crandall, E. W. and Knoll, M. M. (1980). *Management for Modern Families*. New Jersey: Prentice Hall Inc.
5. Nickell, P., and Dorsey, J, M. (2002). *Management in Family Living*. New Delhi: CBS Publishers (ISBN13: 9788123908519)
6. Shukul, M., and Gandotra, V. (2006). *Home Management and Family Finance*. New Delhi: Dominant Publishers and Distributors. (ISBN No. 81-7888-403-8)
7. Singh, S. (2007). *Ergonomics Integration for Health and Productivity*. New Delhi/ Udaipur: Himanshu Publication
8. Varghese, M. A., Ogale. N. and Srinivasan K. (1985). *Home Management*. New Delhi: New Age International (P) Limited, Publishers (ISBN 13: 9780852269046)

II. MAJOR COURSE- MJ 7:

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75

Pass Marks: Th (SIE + ESE) = 30

Instruction to Question Setter for**Semester Internal Examination (SIE 10+5=15 marks):**

There will be **two** groups of questions. Question No.1 will be **very short answer type in Group A** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be **two** groups of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

COMMUNICATION AND EXTENSION**Theory: 60 Lectures****Course Description**

The Course introduces to the students the concept of Communication and Extension. It will orient the students with creation, transmission and application of knowledge designed to bring out planned changes in the behavior of people. Communication is an exciting and challenging field of human interaction.

Course Objectives

1. Understand the concept of Communication and its role in exchange of information
2. Examine the models and barriers to communication
3. Learn about the concept of extension, extension approaches and models
4. Enhance the students in the selection and use of media in different socio-cultural environment

Learning Outcome

1. Gain knowledge on the need and importance of communication and its significance in exchange of information
2. Analyse the models of Communication and role of media in societal development
3. Perceive the importance of extension education
4. Acquire knowledge on the extension models and approaches

Course Content**Unit-I. Communication Concept****(12 Lectures)**

Meaning, definition, nature, scope and importance of communication

Functions of communication – information function, command or instructive function, influence or persuasive function and integrative function.

Elements of Communication – three elements – source, message, receiver, four elements – encoding, decoding, sender and receiver, five elements – communicator, communicate, message, channel and feedback

Means of Communication – Oral, Written, Sign / signal, action, object Types of Communication – Formal and Informal Communication

Pattern - one way, two way, circular

Communication media – Print and electronic media Advantages and Limitations of communication media

Unit-II. Communication Models**(12 Lectures)**

Importance of communication in extension

Models of Communication-Aristotle Model, Shanon – Weaver Mode, Berlo Model, Scharmm Model

Concept, purposes and significance of model in communication

Barriers to Communication – semantic, psychological, organizational and personal

Unit-III. Effective Communication**(12 Lectures)**

Characteristics – Clear, correct, complete and precise message, reliability, consideration of the recipient

Skills – Observance, clarity and Brevity, Listening and Understanding, self-efficacy and self confidence

Significance – Team work, Team building, problem solving and decision making skills, facilitate creativity and reduces misunderstanding

Concepts relating to communication – perception, fidelity, communication gap, Empathy, Homophily, heterophily

Unit-IV. Communication and Extension**(12 Lectures)**

Concept, need, functions, principles and scope of extension Steps in extension teaching

Elements of extension communication system

Communication methods in extension – group method, mass method and individual method

Advantages and limitations of communication and extension

Unit-V. Extension Models and Approaches**(12 Lectures)**

Models – Innovation transfer model, Social education model, Indigenization model, Social action / conscientiation models, Empowerment participation model, Combination models

Approaches – General Extension, Commodity specialized, Training and visit, Agricultural, Extension participatory, project, farming systems development, cost sharing and Educational Institution approach

Recommended Reading

1. Dahama, O.P and Bhatnagar O.P. (1995). Education and Communication for Development. New Delhi: Oxford and IBH Co.
 2. Gupta, D. (2007). Development Communication in Rural Sector. New Delhi: Mukhopadhyay Abhijeet Publication
 3. Nisha, M. (2006). Understanding Extension Education. New Delhi: Kalpay Publications
 4. Reddy, A.A. (2001). Extension Education. Bapatla: Sri Lakshmi Press
 5. Rogers Everett, M. (2003). Diffusion of Innovations, 5th Ed. New York: The Free Press
 6. Singh, U.K and Nayak, A.K. (2007). Extension Education. New Delhi: Common Wealth Publishers
 7. Wilson, M.C., and Gallup, G. (1955). Extension Teaching Methods. Washington: US Department of Agriculture
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HOME SCIENCE PRACTICAL- MJ 7 LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Developing skill in planning and conducting small group communication
2. Preparation of Communication Models
3. Apply communication methods in the implementation of programme
4. Interaction with villagers and understand the felt and unfelt need
5. Carryout a case study using any one Extension approach

Recommended Readings:

1. Dahama, O.P and Bhatnagar O.P. (1995). Education and Communication for Development. New Delhi: Oxford and IBH Co.
 2. Gupta, D. (2007). Development Communication in Rural Sector. New Delhi: Mukhopadhyay Abhijeet Publication
 3. Nisha, M. (2006). Understanding Extension Education. New Delhi: Kalpay Publications
 4. Reddy, A.A. (2001). Extension Education. Bapatla: Sri Lakshmi Press
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SEMESTER VI

I. MAJOR COURSE- MJ 8:

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75	Pass Marks: Th (SIE + ESE) = 30
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Instruction to Question Setter forSemester Internal Examination (SIE 10+5=15 marks):

There will be **two** groups of questions. Question No.1 will be **very short answer type in Group A** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be **two** groups of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

FAMILY FINANCE AND CONSUMER BEHAVIOUR

Theory: 60 Lectures**Course Description**

Consumer is the king in the consumer market. Consumers' behaviour and attitude reflects their living styles which *per se* will be the delineation of their family finance management practices. The Course exposes students to real life situations for realizing their role as consumers as well as financial managers in family settings

Learning Objectives

1. Provide situations to understand significance of family income and expenditure and saving for future
2. Register and react as responsible consumers
3. Analyze relevance of consumer movement in India
4. Gain knowledge on consumer protection Laws and Acts and reflect upon personal rights and responsibilities

Learning Outcomes

1. Becoming familiarized to the changing trends in consumerism
2. Enriched Knowledge on market systems
3. Emerge as informed consumers
4. Review the benefits of planned financial management

Course Content**Unit I Consumer and the Market****(12 Lectures)**

Consumer: definition and meaning; consumer Vs customer

Role of consumers in the economy, National Income, Per Capita Income, Household wise distribution of income

Classification of Consumer goods

Consumer and the market: definition and classification of markets, types Consumer demand and supply

Channels of distribution

Consumer behaviour: changing nature of consumer behaviour to suit modern market and business trends – concepts of C2C, B2B, B2C, C2B etc; Factors influencing Consumer behavior
 Meaning, characteristics of buyer behaviour, buying motives – types; consumer buying process;
 Change in consumer purchase practices in the digital market – concept of e-commerce, m-commerce, online shopping etc; Extended use of plastic currency and cards

Unit II Household Income and Expenditure (12 Lectures)

Household Income – Types, Sources, Supplementation of family income, use of family income, per capita income

Household expenditure: Items of expenditure, mental and written plans, Factors influencing expenditure pattern, expecting exigencies and tackling them

Account maintenance: methods of account keeping like balance sheets, account books, ledgers, income-expenditure records

Process of budgeting- steps in drafting a family budget, balancing income and expenditure, ways to meet emergent expenses

Personal finance management: Tax implications: significance in budgeting, measures adopted and instruments used to ensure tax benefits, calculation of personal income tax for an individual's monthly income

Engel's Laws of consumption, drafting well balanced family budgets

Unit III: Family Savings and Credit Practices (12 Lectures)

Consumer credit- Concept, meaning, need, sources, credit cards, credit services availed by the family members, types of loans availed by families

Mortgages: Definition and conceptual meaning, significance in meeting emergent needs of expenditure

Financial security arrangements: Family savings and investments- need, principles, channels of investment

Savings and savings institutions, merits and demerits of each Guidelines for wise savings practices

Unit IV: Consumerism in India (12 Lectures)

Consumerism: genesis, reasons for consumer movement Historic Declaration of Consumer rights
 Consumerism in India

Consumer problems – types, nature, causes and solutions

Concern for the Consumer: Consumer education: Meaning and definition; need and scope, objectives, aspects, methods, contents and resources, Problems

Consumer education and empowerment: meaning, need and achievements with specific relevance to India

Consumer aids: classification – Labels, Trademarks, Brand Names, Patents, Warranty, Guarantee, Quality Control and After Sales Service, Government and Voluntary Agencies, Role of advertisements influencing consumer behaviour

Product labeling and packaging – significance to fair practices

Unfair consumer practices: adulteration and faulty weights and measures

Green Consumerism-Meaning and importance with respect to consumerism, need, consideration in daily consumption and significance, ethos of adopting sustainable/eco- friendly lifestyle as green consumers

Unit V: Consumer Protection

(12 Lectures)

Consumer protection: concept, need and significance Consumer rights and responsibilities in India

Consumer organizations – origin, functioning, role and types Consumer cooperatives – role, history and growth in India

Consumer redress: role of consumer forums and consumer courts in safeguarding consumers

Basic legislative framework for consumer protection in India- Consumer Protection Act 1986 (COPRA), Alternative redressal mechanisms, Mediation centres

Standardization and quality control measures: Role of ISI, FPO, AGMARK, ISO, Eco mark, Wool mark, Silk mark, Cotton mark, Handloom mark, BEE Star labeling and others

Consumer Protection Act 2019

Recommended Readings:

1. Gangawane, L. V., and Khilare V. C. (2007). *Sustainable Environmental Management: Dr Jayshree Deshpande Festschrift Volume*. Delhi: Daya (ISBN 13: 9788170354741)
 2. Gupta, C.B., and Nair, R.N. (2004). *Marketing Management*. New Delhi: Sultan Chand and Sons
 3. Kathiresan, S., and Radha, V. (2004). *Marketing*. Chennai: Prasanna Publishers
 4. Khanna S.R., Hanspal S., Kapoor S., & Awasthi H.K. (2007). *Consumer Affairs*. New Delhi: Universities Press India Pvt. Ltd.
 5. Nair R., and Nair S, R. (2003). *Marketing*. New Delhi: Sultan Chand and Sons
 6. Nair, S (2002). *Consumer Behaviour*. New Delhi: Sultan Chand and Sons
 7. Pattanchetti, C.C., and Reddy (2002). *Principles of Marketing*. Coimbatore: Rainbow Publishers
 8. Sawhney, H.K., &Mital, M. (2007). *Family Finance & Consumer Studies*. New Delhi: Elite Publishing House Pvt. Ltd.
 9. Seetharaman, P., and Sethi, M. (2001). *Consumerism: Strength and Tactics*. New Delhi: CBS Publishers.
 10. Verma, B.P. (2003). *Civil Engineering Drawing, Drawing and House Planning*. New Delhi: Khanna Publishers
 11. Wagner, S. (2003). *Understanding Green Consumer Behavi* Routledge (ISBN 9780415316194)
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HOME SCIENCE PRACTICAL- MJ 8 LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lectures**

1. Evaluation and designing of advertisements in the print media including products, services and social ads.
2. Evaluation and designing of informative and attractive labels for different type of food products.
3. Case study of banks and post offices to understand their services and products
4. Learning to fill different bank forms for depositing money, start fixed deposit or recurring deposit
5. Analysis of consumer redress through case study approach under CPA.
6. Food adulteration tests
7. Debates on:
 - a. Consumer credit – merits and demerits
 - b. Online shopping – advantages and disadvantages
 - c. Credit and debit card usage – pros and cons
8. Visit to consumer Forums and consumer courts to understand their operational procedures
9. Visit to ISI regional office and learn their nexus of operation
10. Identify various marks of significance like Hall mark, wool mark, silk mark etc and know the complex modes of identity clauses
11. Visits to various types of consumer markets to find out how they function
12. Do an elaborate Market study to identify labels and packaging and the information transfer expected in different consumer products
13. Learn to distinguish one mark from another from the logo and colour of logo like eco labels, green labels
14. Calculate taxable income and accruing tax for an individual whose occupation, monthly income, savings and like are specified
15. Compare provisions made in Consumer Protection Act 1986 with COPRA 2019

Recommended Readings:

1. Gupta, C.B., and Nair, R.N. (2004). *Marketing Management*. New Delhi: Sultan Chand and Sons
2. Kathiresan, S., and Radha, V. (2004). *Marketing*. Chennai: Prasanna Publishers
3. Khanna S.R., Hanspal S., Kapoor S., & Awasthi H.K. (2007). *Consumer Affairs*. New Delhi: Universities Press India Pvt. Ltd.
4. Nair, S (2002). *Consumer Behaviour*. New Delhi: Sultan Chand and Sons
5. Pattanchetti, C.C., and Reddy (2002). *Principles of Marketing*. Coimbatore: Rainbow Publishers
6. Sawhney, H.K., &Mital, M. (2007). *Family Finance & Consumer Studies*. New Delhi: Elite Publishing House Pvt. Ltd.
7. Wagner, S. (2003). *Understanding Green Consumer Behaviour* Routledge (ISBN 9780415316194)

II. MAJOR COURSE- MJ 9:

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75**Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):******There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which one to answer.******The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)******End Semester Examination (ESE 60 marks):******There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which three are to answer.******Note: There may be subdivisions in each question asked in Theory Examinations.*****FAMILY MEAL MANAGEMENT****Theory: 60 Lectures****Course Description**

Course investigates how nutrition requirements and challenges change throughout the human lifecycle and how alteration in nutritional requirements impact on human health. The course also investigates the influence of nutrition prior to and during conception and to highlight the importance of good maternal nutrition during pregnancy and lactation and the impact of poor nutritional balance on fetal and infant development and maternal health. The course will cover the assessment of normal growth and body development during childhood and adolescence and will conclude with a full review of current literature and research on nutrient needs and factors affecting the nutritional status of adults and the elderly.

Course Objectives

1. Study the growth and development during various stages of life span
2. Understand the basics for recommending the dietary allowances
3. Study nutritional needs at different stages of life span
4. Gain experience in planning adequate diets for different age groups and for different income groups.

Learning Outcome

1. Design food plans and assess the adequacy of diets to meet the nutritional needs of humans at various stages of life cycle.
2. Assess nutrition issues and conditions and also recommend nutrition intervention and support to promote the health and wellbeing.
3. Have the knowledge, both to develop and critique nutritional interventions designed to improve human health and well-being at specific age associated time points.
4. On completion of the course students will be able to critically assess nutritional requirements and nutritional health status of an individual.

Course Content**Unit-I. Introduction to RDA and Balanced Diet****(10 Lectures)**

Basic concept and purposes of Recommending the Dietary Allowances, Factors Affecting Recommended Dietary Allowances

Requirements and Recommended Dietary Allowances for various age groups Uses of ICMR-RDA in planning balance diet

Exchange system and Dietary Diversity

Unit-II. Nutrition in Pregnancy and Lactation (14 Lectures)

Physiological Changes occurring during Pregnancy
Importance of Food and Nutritional Care and Requirement during pregnancy General Dietary and nutritional Problems and Complications,
Physiology and Hormones involved in Lactation Food supplements and galactogogues.
Factors Affecting the Volume and Composition of Breast Milk, Nutritional Requirements during lactation

Unit-III. Nutrition in Infancy (12 Lectures)

Growth and Development of Infants,
Composition of Human Milk and Human Milk Substitute,
Bottle Feeding and related Problems,
Weaning and Supplementary Feeding Foods,
Feeding Problems and Complications.
Use of growth charts and standards and prevention of growth faltering

Unit-IV. Nutrition in Childhood and Adolescence (12 Lectures)

Growth and Development of Pre School, School Going Children and Adolescence.
Food and Nutritional Requirements,
Factors to be considered while Planning Diet for Children and Adolescents,
Growth Spurt during Adolescence.
Food Habits, Dietary Guidelines, Food and Nutritional Requirements,
Nutritional and Behavioral Problems and Eating Disorders

Unit-V. Nutrition for Adults and Elderly (12 Lectures)

Reference Man and Reference Woman,
Food and Nutritional Requirements for Adults doing Different Activities Processes of Aging,
Food and Nutritional Requirements of Elders,
Nutrition Related Problems of Old Age,
Dietary Guidelines and diet Modifications.

Recommended Reading

1. Mahtab, S, Bamji, Kamala Krishnasamy, Brahmam, G.N.V. (2012) *Text Book of Human Nutrition*, Third Edition, Oxford and IBH Publishing Co. P. Ltd., New Delhi.
 2. Srilakshmi, B. (2013), *Dietetics*, New Age International (P) Ltd., New Delhi.
 3. SunetraRoday (2017). *Food Science and Nutrition*, Oxford University Press, New Delhi
 4. Longvah, T, Ananthan, R, Bhaskarachary, K, Venkaiah, K. (2017). *Indian Food Composition Tables (IFCT)*, Indian Council of Medical Research, National Institute of Nutrition, Hyderabad.
 5. Shakuntala Manay, Shadaksharaswamy. M (2013) *Foods, Facts and Principles*, New Age International Pvt Ltd Publishers, 2nd Edition) Ltd., New Delhi.
 6. Swaminathan, M. (2012), *Advanced Textbook on Food and Nutrition*, Vol. 1, Second Edition, Bangalore Printing and Publishing Co. Ltd., Bangalore.
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HOME SCIENCE PRACTICAL- MJ 9 LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Planning, Preparing and Evaluating Menu during Pregnancy
2. Planning, Preparing and Evaluating Menu during Lactation
3. Planning, Preparing and Evaluating Menu for Infants (Supplementary Foods)
4. Planning, Preparing and Evaluating Menu for Preschoolers
5. Planning, Preparing and Evaluating Menu for School Going Children
6. Planning, Preparing and Evaluating Menu for Adolescents
7. Planning, Preparing and Evaluating Menu for Adults
8. Planning, Preparing and Evaluating Menu for Elderly

Recommended Readings:

1. Mahtab, S, Bamji, Kamala Krishnasamy, Brahmam, G.N.V. (2012) *Text Book of Human Nutrition*, Third Edition, Oxford and IBH Publishing Co. P. Ltd., New Delhi.
 2. Srilakshmi, B. (2013), *Dietetics*, New Age International (P) Ltd., New Delhi.
 3. SunetraRoday (2017). *Food Science and Nutrition*, Oxford University Press, New Delhi
 4. Longvah, T, Ananthan, R, Bhaskarachary, K, Venkaiah, K. (2017). *Indian Food Composition Tables (IFCT)*, Indian Council of Medical Research, National Institute of Nutrition, Hyderabad.
 5. Shakuntala Manay, Shadaksharaswamy. M (2013) *Foods, Facts and Principles*, New Age International Pvt Ltd Publishers, 2nd Edition) Ltd., New Delhi.
 6. Swaminathan, M. (2012), *Advanced Textbook on Food and Nutrition*, Vol. 1, Second Edition, Bangalore Printing and Publishing Co. Ltd., Bangalore.
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SEMESTER VII

Institute or Student may select all four Advance Major Courses from any of Following Groups of Specialization in any one area of Home Science as Advance Major. All four papers of same group must be taken.

Group A- FOOD AND NUTRITION (FN)

Group B- HUMAN DEVELOPMENT AND FAMILY STUDIES (HDFS)

Group C- CLOTHING AND TEXTILES (CT)

Group D- FAMILY RESOURCE MANAGEMENT (FRM)

Group E- HOME SCIENCE EXTENSION EDUCATION (HSEE)

Change of group once studied in a semester cannot be allowed in any circumstances unless a student quite the programme and seek re-admission.

I. ADVANCE MAJOR COURSE- AMJ 1A: (Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75

Pass Marks: Th (SIE + ESE) = 30

Instruction to Question Setter for***Semester Internal Examination (SIE 10+5=15 marks):******There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which one to answer.******The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)******End Semester Examination (ESE 60 marks):******There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer******Note: There may be subdivisions in each question asked in Theory Examinations.*****A. DIETETICS****Theory: 60 Lectures****Course Description**

This course prepares the students to use advanced knowledge about food and nutrition for prevention as well as treatment of diseases and also maintain human health. Dietetics focuses on food management through proper planning, preparation, monitoring, implementation and supervision of a patient's modified diet and to develop basic counseling skills as dietitian.

Learning Objectives

1. Understand the role of dietitian and to maintain good nutritional status, correct deficiencies or disease conditions of the patients
2. Gain knowledge on the principles of diet therapy and designing or formulating different therapeutic diets for various disease conditions
3. Develop skill to plan and prepare therapeutic diets for prevention of disease conditions
4. Diet therapy may include prescribing specialized dietary regimes or meal plans. As entrepreneur.

Learning Outcomes:

1. Integrate knowledge of research principles and methods associated with nutrition and dietetics practice.
2. Collect, organize and assess data relating to the health and nutritional status of individuals, groups and populations.
3. Demonstrate initiative and judgment using a professional, ethical and entrepreneurial approach advocating for excellence in nutrition and dietetics.
4. Independently plan and execute a research project in regard to nutrition and dietetics practice.

Course Content**Unit-I. Concepts in Diet Therapy****(12 Lectures)**

Growth and Scope of Dietetics

Purposes and Principles of Therapeutic Diets Modifications of Normal Diets Classification of the Therapeutic Diets,

Role of Dietitians Characteristics of Dieticians,

Hospital Dietary Food Service, Diet Counseling, Team Approach to Nutritional Care, Principles of Food Prescription, Indian Dietetic Association,

Computer Assisted Instructions (CAI) - Diet Planning using computers, Use of Technology in diet counseling.

Unit-II. Medical Nutrition Therapy in Obesity, Underweight and Diabetes Mellitus

Etiology, Pathophysiology, Clinical symptoms, metabolic alterations, Assessment/Indicators, Lifestyle & Dietary guidelines for the following conditions **(12 Lectures)**

Obesity (Bariatric Surgery: types, Management)

Underweight

Diabetes Mellitus (Acute and Chronic Complications of Diabetes)

Diet Modifications, Use of Food Exchange Lists, Insulin-Types and Use, Oral Hypoglycemic Agents, Carbohydrate counting, Glycemic Index, Glycemic Load)

Unit-III. Medical Nutrition Therapy in Gastro Intestinal Disorders and Diseases of the liver

Etiology, Pathophysiology, Clinical Symptoms, Assessment/Indicators, Lifestyle & Dietary guidelines for the following conditions **(12 Lectures)**

Diarrhea

Dysentery

Constipation and Peptic Ulcer

Jaundice Hepatitis Fatty Liver Cirrhosis Hepatic Coma

Unit-IV. Medical Nutrition Therapy in Diseases of the Cardio Vascular System and Kidney Diseases **(12 Lectures)**

Etiology, Pathophysiology, Clinical Symptoms, Lifestyle & Dietary guidelines for the following conditions:

Atherosclerosis, Hyperlipidemia, Ischemic Heart Disease, Congestive Heart Failure,

Bypass Surgery Hypertension (DASH Diets) Nephrotic Syndrome Nephrolithiasis

Acute and Chronic Renal Failure 4.10Dialysis – Principles and Types 4.11Kidney Stones

Unit-V. Medical Nutrition Therapy for Fever, Food Allergy and Cancer Febrile Conditions

Acute and chronic infectious disease-Typhoid, Tuberculosis and HIV and AIDS

Guidelines for management of tuberculosis and infectious diseases. **(12 Lectures)**

Food Allergy - Definition, Causes, Science and Symptoms, Types of Allergies, Diagnosis, Dietary Modifications

Gluten sensitivity and Lactose intolerance

Cancer: Etiology, Metabolic alterations, Types of Cancer, Dietary Recommendation for Cancer Survivors. Nutritional therapy for Cancer

Recommended Readings:

1. Srilakshmi, B. *Dietetics*, New Age International P. Ltd., New Delhi, 2018.
2. *Dietary Guidelines of Indians – A Manual*, National Institute of Nutrition, Hyderabad, 2015.
3. Garg, M. *Diet, Nutrition and Health*, ABD Publishers, 2006.
4. Krause, M.V. and Mahan, L.K. *Food, Nutrition and Diet Therapy*, 9th Ed., W.B. Saunders Company, Philadelphia, 2019.
5. Maimun Nisha, *Diet Planning for Diseases*, Kalpaz Publishers, 2016.
6. *Dietary Guidelines of Indians – A Manual*, National Institute of Nutrition, Hyderabad, 2011.
7. Brown, J (2014). *Nutrition now* (7thed). Wadsworth, USA, ISBN- 13:978-1-133-93653-4, ISBN 10:1-133-93653-9
8. Nelms M, Sucher K (2015). *Nutrition Therapy and Pathophysiology*. (3rd edition) Cengage Learning, USA. ISBN-13: 978-1305111967, ISBN-10: 130511196n, New Delhi

HOME SCIENCE PRACTICAL- AMJ 1A LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Preparation of Hospital Diets- Modification of diet with respect to texture, consistency and nutrients
2. Modification of Diets in Obesity
3. Modification of Diets in Underweight
4. Modification of Diets in Diabetes Mellitus
5. Diets for Febrile Conditions – TB, Typhoid
6. Modification of Diets in Peptic Ulcer, Constipation and Diarrhea
7. Modifications of Diets in Liver Diseases – Jaundice, Hepatitis and Cirrhosis
8. Diets for Nephritis, renal Failure and renal Calculi, Protein Restricted Diets
9. Diets for Cardiovascular diseases – Sodium Restricted, Fat Controlled
10. Modification of Diet for Cancer Patients and HIV Infected Person
11. An Overview/desk review on DASH diet, Mediterranean diet, Paleo diet, FODMAP diet, Keto diet VLCD etc.

Recommended Readings:

1. Srilakshmi, B. *Dietetics*, New Age International P. Ltd., New Delhi, 2018.
 2. *Dietary Guidelines of Indians – A Manual*, National Institute of Nutrition, Hyderabad, 2015.
 3. Krause, M.V. and Mahan, L.K. *Food, Nutrition and Diet Therapy*, 9th Ed., W.B. Saunders Company, Philadelphia, 2019.
 4. Maimun Nisha, *Diet Planning for Diseases*, Kalpaz Publishers, 2016.
 5. Brown, J (2014). *Nutrition now* (7thed). Wadsworth, USA, ISBN- 13:978-1-133-93653-4, ISBN 10:1-133-93653-9
 6. Nelms M, Sucher K (2015). *Nutrition Therapy and Pathophysiology*. (3rd edition) Cengage Learning, USA. ISBN-13: 978-1305111967, ISBN-10: 130511196n, N. Delhi
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OR**ADVANCE MAJOR COURSE- AMJ 1B:** (Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75

Pass Marks: Th (SIE + ESE) = 30

Instruction to Question Setter for***Semester Internal Examination (SIE 10+5=15 marks):***

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer

Note: There may be subdivisions in each question asked in Theory Examinations.

B. CHILDHOOD AND ADOLESCENCE**Theory: 60 Lectures****Course Description**

The course introduces students to child and adolescent development. It explains basic developmental principles and psychosocial factors which influence development from conception till 18 years. It further explores the influence of a range of issues from birth through age 18.

Learning Objectives

1. Develop an understanding about the need and importance of studying child and adolescent development.
2. Develop an understanding about the historical views and theories on childhood and adolescent development.
3. Learn about the characteristics, needs and developmental tasks of infancy, early middle and late childhood, and early, middle and late adolescence.
4. Learn about the biological and environmental factors that affect development during childhood and adolescence.
5. Learn key issues which influence childhood and adolescent development.

Learning Outcomes

1. Explain the need and importance of studying childhood and adolescence as a distinctive stage of the life-span.
2. Describe the characteristics, needs and developmental tasks of infancy, early childhood, middle childhood and early and late adolescence.
3. Identify the biological and environmental factors affecting development during childhood and adolescence.
4. Analyse key issues that influence child and adolescent development.

Course Content:**UNIT-I Childhood and Adolescent Development: Introduction (12 Lectures)**

Concept, meaning and principles of 'growth' and 'development'.

Concept of critical periods of development during infancy, childhood and adolescence.

UNIT-II Historical Foundations and Theories of Childhood and Adolescent Development

Historical foundations and scientific beginnings

(12 Lectures)

Brief overview of theories of child and adolescent development – maturational, behavioral, psychosocial, cognitive, social learning,

Brief overview of theories of child and adolescent development including the maturational, behavioral, psychosocial, cognitive, social learning, ecological, and sociocultural, perspectives.

UNIT-III Development across Childhood and Adolescence (12 Lectures)

Major characteristics of different stages of childhood and adolescence (infancy, early, middle and late childhood, puberty, early and late adolescence)

What are developmental tasks and milestones, and their importance

With reference to each domain of development (physical, cognitive, language, socio-emotional) characteristics, needs, developmental tasks and milestones of individuals from birth to 18 years are explained.

Neonate (birth–1 month)

Infancy (1 month–2 years)

Early childhood (2-6 years)

Middle childhood (6-11 years)

Adolescence (12-18 years)

UNIT-IV Familial and Social Influences on Childhood and Adolescent Development

Family influences on child and adolescent development (12 Lectures)

Influence of various parenting styles on development, behavior and functioning during childhood and adolescence

Changes in self-esteem, self- concept and identity from early childhood through adolescence

Moral development from early childhood to late adolescence in relation to societal norms and social understanding

Development of gender roles and perceptions, changes in gender identity from early childhood through adolescence

UNIT-V Childhood and Adolescent Development: Key Issues (12 Lectures)

Influence of peer relationships on development

Impact of media and its influences on development and learning

Physical, psychological and social effects of substance abuse and risk behaviors Role of nutrition in childhood and adolescent development.

Brief overview of aggression, gender roles and stereotypes, androgyny, friendship, popularity and rejection, sibling relations, juvenile delinquency, suicide, depression, elopement, puberty, early/late maturation, human sexuality, eating disorders during childhood and adolescence

Recommended Readings:

1. Berk, L.E. (2017). Child development (9th ed.). Pearson
2. Bhogle, S. (1999). Gender roles: The construct in the Indian context. In T.S. Saraswathi (Ed.), Culture socialization and human development: Theory, research and applications in India (p.p.278-300). New Delhi: Sage.
3. Kapadia, S. (2017) Adolescence in Urban India: Cultural Construction in a Society in Transition. Springer
4. Keenan, T., Evans, S., & Crowley, K. (2016). An introduction to child development. Sage.
5. Kumar, K. (1993). Study of childhood and family. In T.S. Saraswathi & B. Kaur (Eds.). Human development and family studies in India: An agenda for research and policy, (pp.67-76). New Delhi: Sage.
6. Lightfoot, C., Cole, M., & Cole, S. (2012). The development of children (7th ed.). New York: Worth Publishers

7. Santrock, J. (2017). *A topical approach to life span development* (9th ed.). New NY.: McGraw-Hill Higher Education.
 8. Saraswathi, T.S., & Kaur, B. (1993). *Human Development and family Studies in India- an Agenda for research and Policy*. New Delhi. Sage.
 9. Saraswathi, T. & Oke, Meera. (2013). *Ecology of Adolescence in India*. Psychological Studies. DOI 58. 10.1007/s12646-013-0225-7.
 10. Saraswathi, T.S., Menon, S., & Madan, A. (eds.) (2018) *Childhoods in India Traditions, Trends and Transformations*. New Delhi. Routledge.
 11. Sinha, D., & Misra, R.C. (1999). Socialization and cognitive functioning. In T.S. Saraswathi (Ed.), *Culture, socialization and human development: Theory, research and applications in India* (pp.167-187). New Delhi: Sage.
 12. Verma, S., & Saraswathi, T. S. (2002). Adolescence in India: Street urchins or Silicon Valley millionaires? In B. B. Brown, R. W. Larson & T. S. Saraswathi (Eds.), *The world's youth: Adolescence in eight regions of the globe* (p. 105–140). Cambridge University Press.
<https://doi.org/10.1017/CBO9780511613814.005>
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HOME SCIENCE PRACTICAL- AMJ 1B LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lectures**

1. Preparation of an album on developmental milestones of children and adolescents.
2. Visit to a pediatric ward
3. Visit to an Anganwadi
4. Interaction with counselors/clinical psychologists
5. Carry out a case study of an adolescent boy and girl using multiple methods
6. Select a topic related to a significant developmental problem or issue faced by children and adolescents and describe ways to assist them, their teachers and parents to deal with the problem.

Recommended Reading

1. Berk, L.E. (2017). Child development (9th ed.). Pearson
2. Bhogle, S. (1999). Gender roles: The construct in the Indian context. In T.S. Saraswathi (Ed.), Culture socialization and human development: Theory, research and applications in India (p p. 278-300). New Delhi: Sage.
3. Kapadia, S. (2017) Adolescence in Urban India: Cultural Construction in a Society in Transition. Springer
4. Keenan, T., Evans, S., & Crowley, K. (2016). An introduction to child development. Sage.
5. Kumar, K. (1993). Study of childhood and family. In T.S. Saraswathi & B. Kaur (Eds.). Human development and family studies in India: Anagenda for research and policy, (pp.67-76). New Delhi: Sage.
6. Saraswathi, T.S., & Kaur, B. (1993). Human Development and family Studies in India- an Agenda for research and Policy. New Delhi. Sage.
7. Saraswathi, T.S., Menon, S., & Madan, A. (eds.) (2018) Childhoods in India Traditions, Trends and Transformations. New Delhi. Routledge.
8. Sinha, D., & Misra, R.C. (1999). Socialization and cognitive functioning. In T.S. Saraswathi (Ed.), Culture, socialization and human development: Theory, research and applications in India (pp.167-187). New Delhi: Sage.
9. Verma, S., & Saraswathi, T. S. (2002). Adolescence in India: Street urchins or Silicon Valley millionaires? In B. B. Brown, R. W. Larson & T. S. Saraswathi (Eds.), The world's youth: Adolescence in eight regions of the globe (p. 105–140). Cambridge University Press. <https://doi.org/10.1017/CBO9780511613814.005>

OR**ADVANCE MAJOR COURSE- AMJ 1C:** (Credits: Theory-04, Practicals-02)**Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75****Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):******There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.******The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)******End Semester Examination (ESE 60 marks):******There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer******Note: There may be subdivisions in each question asked in Theory Examinations.*****C. FASHION MARKETING AND MERCHANDISING****Theory: 60 Lectures****Course Description**

The course introduces students to the business aspects of fashion with a focus on fashion marketing and merchandising. It focuses on learning to capture the attention, of potential customers and promoting required products and services to them. It deals with how to understand, predict, and respond to consumer wants and behaviour to maximize business sales and revenue.

Learning Objectives:

1. Determine how business of fashion identifies its target market and adapts to deliver the desired satisfactions to the ultimate customer.
2. Learns the product / merchandise presentation to potential customers.
3. Understand the buying and selling of goods for the purpose of making a profit.

Learning Outcomes:

Successful completion of this course will enable students to

1. Explain how fashion marketing and merchandising can help the fashion industry.
2. Define role and responsibilities of fashion marketers and fashion merchandisers.
3. Identify target markets and build consumer profiles for fashion products
4. Select promotional tool suitable for potential customers.
5. Develop a promotional plan and promote a merchandise
6. Establish and use inventory control systems

Course Content**Unit-I. Understanding the Basic Concepts of Fashion Marketing and Merchandising (12 Lectures)**

Fashion business terminologies

Nature and scope of fashion marketing and merchandising

The marketing environment: macro and micro

Areas of fashion marketing and merchandising: public relations, brand management, event planning, customer relations, social media, advertising, retail buying, store management, fashion buying, visual merchandising, retail sales management

Profiles of occupations in fashion marketing and merchandising

Unit-II. Researching the Fashion Market and Consumer (12 Lectures)

The fashion consumer and organizational buyer

Segmentation and the marketing mix

Fashion marketing research: identifying the needs and wants of target customer.

Unit-III. Fashion Marketing Communication (12 Lectures)

Promotion tools for fashion marketing: advertising, sales promotion, packaging, public relations and publicity

Onsite Promotion: visual merchandising framework and approaches

Unit-IV. Merchandise Management (12 Lectures)

Types of Merchandise

Six rights of merchandising and their importance

Merchandise planning, acquisition, handling and monitoring

Supply chain management

Inventory Control systems

Financial accounting

Unit-V. Future Trends in Buying and Merchandising (12 Lectures)

The changing impact of IT on fashion retailing

The impact of new manufacturing techniques

The fashion buyers of the future

The fashion merchandiser of the future

Future technologies impacts on the consumer

Other types of fashion retail competition

Recommended Readings:

1. Bliss, L. L. (1995) Study Guide Visual Merchandising and Display 3rd ed. Fairchild Publications.
 2. Blythe, J. (2006), Principles and Practice of Marketing, Thomson, London.
 3. Easey M. (2009), Fashion Marketing, 3rd ed. United Kingdom: Blackwell Publishing
 4. Elaine, S. (2013) The Dynamics of Fashion. 4th ed. New York: Bloomsbury publication
 5. Kotler, P. and Gary, A. (2001) Principles of Marketing. 9th ed. Upper Saddle River, N.J.: Prentice Hall
 6. Wolfe, M. (2009) Fashion Marketing & Merchandising, 3rd ed. United States:
 7. Goodheart-Willcox Publishing
 8. <https://www.slideshare.net/kotharivr/fashion-merchandising-ebook>
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HOME SCIENCE PRACTICAL- AMJ 1C LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Identify the marketplace and evaluate customers, as well as trends affecting future sales
2. Case studies to understand the buying procedures of various types of fashion retail businesses and also analyze the environment in which buying occurs.
3. Review trends, emerging and the growing retail formats where will consumers make purchases through literature and field visits
4. Describe your customers; identifying changes in consumer markets, understanding buying motives and learning about customers through data warehousing and data mining
5. Plotting customer profiles for various fashion businesses
6. Analyze promotional activities used by fashion businesses
7. Promoting a merchandise for fashion business – experiential project
8. Visual merchandising projects to be undertaken for different fashion businesses
9. Interact with Store managers to understand how they develop and prepare merchandise plan as well as a merchandise assortment for their business. What are their best practices?
10. Visit to various type of markets
11. Case study of fashion business to understand its supply chain management and inventory control systems

Recommended Readings:

1. Bliss, L. L. (1995) Study Guide Visual Merchandising and Display 3rd ed. Fairchild Publications.
 2. Blythe, J. (2006), Principles and Practice of Marketing, Thomson, London.
 3. Elaine, S. (2013) The Dynamics of Fashion. 4th ed. New York: Bloomsbury publication
 4. Kotler, P. and Gary, A. (2001) Principles of Marketing. 9th ed. Upper Saddle River, N.J.: Prentice Hall
 5. Wolfe, M. (2009) Fashion Marketing & Merchandising, 3rd ed. United States: Goodheart-Willcox Publishing
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OR**ADVANCE MAJOR COURSE- AMJ 1D:** (Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75

Pass Marks: Th (SIE + ESE) = 30

Instruction to Question Setter for***Semester Internal Examination (SIE 10+5=15 marks):***

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer

Note: There may be subdivisions in each question asked in Theory Examinations.

D. PLANNING AND DESIGNING FOR INTERIOR SPACE**Theory: 60 Lectures****Course Description**

Shelter and the living space enclosed within are the determinants of healthy, safe and satisfied living. The Course is a launch pad for the students to understand the rudiments of functional as well as aesthetic designing of interior spaces so as to render them more livable and comfortable for occupants. The Course further facilitates experiential learning on designing spaces

Learning Objectives

1. Develop comprehension on the nuances of design, design elements and principles
2. Draft house plans based on standard guidelines and principles
3. Understand space design organization for optimum comfort and functionalism.
4. Evaluate residential interior space for aesthetic and ergonomic feasibility

Learning Outcomes

1. Practicing knowledge gained on selection of site and building principles in real life situations
2. Enable reading and comprehending building plans, evaluating and drafting them
3. Examining market trends, merits and demerits of building materials and finishes
4. Appreciate principles of design and the contributing factors and refine personal aesthetic senses

Course Content**Unit I: Design Fundamentals in Designing Interior Space (10 Lectures)**

Life space and Proxemics – significance in interior space designing Concept and meaning of aesthetics, perception and good taste in designing Interior Design Vs Interior Decoration

Design: Definition, types and classification

Plastic elements - elements of design – application in interiors Rudiments of design - Principles of design – application in interiors

Unit II: Aesthetic and Functional Considerations in Designing Interior Space (14 Lectures)

Colour – definition, colour spectrum, Prang Colour system, classification of colours, colour harmonies – use and application in interiors. Factors influencing choice of colours
Furniture – definition, importance, classification, styles, use, factors influencing selection and

placement, case goods Vs upholstered furniture, ergonomically designed furniture, modular units, multi - purpose furniture; concept of furniture detailing

Lighting – Sources, kinds and types of lighting, requirements of good lighting, use/ role, brightness - measurement for adequacy, avoidance of glare and shadow

Accessories in the interior – definition, functions, use and classification; role in completing a design need in an interior

Creating interface between interior and exterior - Introducing flower arrangements, indoor plants, Bonsai and hydroponics

Unit III: Concept of Housing

(10 Lectures)

Definition, importance and functions of a house; Family's housing needs; Housing as a symbol of standard of living

Sustainable Development Goals (SDGs) - Pollution and Environment protection, Acts (EPA)

Housing shortage and housing problems in India

Housing standards- role of ISI and BIS

Residential structural features of Indian houses and cultural influences

Unit IV: Constructional Considerations in Designing Interior Spaces

(16 Lectures)

Selection of site for houses: Factors influencing and legal aspects

Principles of planning, space allocation and organization in independent houses, apartments and flats

Building materials: materials for foundation, construction and finishes – types, characteristics and use

Concept of green buildings and eco-friendly materials as modern trends in building construction

Levels of construction and components of a building

Spatial organization in interiors: work zones, space bubble and schematic diagram

Types of plans – site, floor, cross-section, elevation, landscape, perspective

Ergonomics in designing kitchens, the nerve centre of the house: role of anthropometry, working heights, work triangle- significance in drafting various kitchen layouts and designing modular kitchens

Modular coordination and prefabrication

Housing finance: Availability and supporting agencies - Government and non- governmental agencies

Unit V: Building Services in an Interior

(10 Lectures)

Plumbing Wiring

Waste disposal methods and provisions

Rain water harvesting units

Safety features – concept of BIMs, IAQ, fire safety, exhausts/ alarms Ergonomic considerations ensuring health and safety of inmates

Spatial organization considerations with special reference to people with disabilities (PWD)

Recommended Readings:

1. Alexander. N.J., (1972). Designing Interior Environment. New York: Harcourt Brace, Johanovich Inc.
 2. Ball, V. K. (1982). Art of Interior Design. New York: John Wiley & Sons
 3. Bhargava, B. (2001). Family Resource Management and Interior Decoration, Delhi: University Book House
 4. Bhargava, B. (2001). Housing and Space Management. Jaipur: University Book House Ltd.
 5. Bharucha, E. (2005). Text Book of Environmental Studies. University Grants Commission,
 6. Bhatt P.D., and Goenka S. (1990). Foundation of Arts Design. Bombay: Lakhari Book Depot,
 7. Bonda P. and Sonsnowchik K. (2007). Sustainable Commercial Interiors. Jaipur: John Wiley and Book House Ltd,
 8. Chauhan, B.C. (2008). Environmental Studies. New Delhi: University Science Press.
 9. Cherunilam, F., & Hedggade, O. D. (1987). Housing in India. Bombay: Himalaya Publishing House.
 10. Crafti. (2004). The office – Designing for Success. Jaipur: Images Publication
 11. De, A.K. (2010), Environmental Chemistry, New Delhi: Willey Eastern ltd.,
 12. Deshpande, R. S. (1980). Modern Ideal Homes for India. Poona: United Book Corporation
 13. Deshpande, R.S. (2000). Build Your Own Home. Pune: United book Corporation,
 14. Duffy,F., (1997). The New Office. USA: Conran Octopus Publication
 15. Faulkner, R., and Faulkner, S. (1975). Inside Today’s Home, New York: Rinehart
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HOME SCIENCE PRACTICAL- AMJ 1D LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures****Market Study on:**

1. furniture construction and detailing, availability and cost of different types of furniture
2. Availability and popularity of eco-friendly materials
3. availability and cost of building materials and finishes
4. Submission of layout drawings for different rooms & furniture using cut outs
5. Area arrangement - Interior design for different rooms as mock up spaces

Visits to:

1. hotels, restaurants, conference hall, corporate offices to study significant differences in designing of interiors and space organization
2. BIS office to gain knowledge on basic standards
3. HUDCO and Housing Board offices to learn about Scheme Rules and housing standards

Evaluation of art objects

1. Drawing exercises: development of motifs, illustrations for different kinds of designs, use of various elements and principles (of design) in designing objects, room arrangements etc
2. Lecture cum demonstrations - Use of elements and principles of design in making accessories of functional and aesthetic value like pottery, paintings (different types), floor decorations, flower arrangement
3. Planning lighting for residential and commercial spaces specifying requirements
4. Drawing a kitchen layout considering anthropometric data of an individual
5. Drawing house plans for different income groups
6. Working drawings
7. Prang colour system, Colour harmonies, Colour schemes for various rooms
8. Model making – window treatments, furniture and art objects

Recommended Readings:

1. Alexander. N.J., (1972). Designing Interior Environment. New York: Harcourt Brace, Johanovich Inc.
2. Ball, V. K. (1982). Art of Interior Design. New York: John Wiley & Sons
3. Bhargava, B. (2001). Housing and Space Management. Jaipur: University Book House Ltd.
4. Bonda P. and Sonsnowchik K. (2007). Sustainable Commercial Interiors. Jaipur: John Wiley and Book House Ltd,
5. Cherunilam, F., & Hedggade, O. D. (1987). Housing in India. Bombay: Himalaya Publishing House.
6. Crafti. (2004). The office – Designing for Success. Jaipur: Images Publication
7. Deshpande, R. S. (1980). Modern Ideal Homes for India. Poona: United Book Corporation
8. Deshpande, R.S. (2000). Build Your Own Home. Pune: United book Corporation,
9. Faulkner, R., and Faulkner, S. (1975). Inside Today's Home, New York: Rinehart

OR**ADVANCE MAJOR COURSE- AMJ 1E:** (Credits: Theory-04, Practicals-02)**Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75****Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):******There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.******The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)******End Semester Examination (ESE 60 marks):******There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer******Note: There may be subdivisions in each question asked in Theory Examinations.*****F. COMMUNICATION MODEL IN EXTENSION****Theory: 60 Lectures****Course Description**

The Course enables the students to understand the concept and process of communication. Apply knowledge of communication and be able to evaluate the theoretical approach used in the inter disciplinary field of communication and learn the concept of diffusion of innovations and adoption.

Learning Objectives

1. Understand the concept and process of communication for development
2. Acquire skill in information education and communication
3. Learn the concept of diffusion and acquires skill to transfer the Innovation
4. Strengthen the knowledge of traditional and modern media in development communication

Learning Outcomes

1. Explain the basic concept, nature and significance of Communication model
2. Learn the communication channel and skill
3. Analyse the media in development communication
4. Understand the adoption and diffusion process to help the extension agents to accelerate them

Course Content**Unit-I. Communication Model****(12 Lectures)**

Concept of communication model and significance

Functions – teaching elements of communication process, conducting research, predicting the success of failures of communication process.

Importance of communication model – easy understanding of communication process, showing information flow, introducing the parts of communication process, easy presentation of communication process and understanding the communication process.

Unit-II. Methods of Communication**(16 Lectures)**

Extension methods of communication – Individual method – Farm and home visit, farmer's call, personal letter, adaptive or minikit trial, farm clinic

Group method – result demonstration, method demonstration, group meeting, small group training, field day or farmer's day and study tour

Elements of extension communication system – communicator, message, channel treatment and presentation, audience, audience response

Characteristics of change agent – empathy, linkage, structure, synergy, energy, proximity, openers

Role and competencies of change agent – broad knowledge, operational and relational knowledge, sensitivity and maturity, authenticity

Unit-III. Media in Development Communication**(12 Lectures)**

Traditional media – types (folk songs, drama, and puppetry) characteristics and role in development communication

Radio – Origin and history, news, features and commentaries, role in development communication

Television and cinema – history, features and role in development communication ICTs – scope and development communication

Unit-IV. Diffusion of Innovations**(10 Lectures)**

Diffusion-concept, elements of diffusion, difference between communication and diffusion

Innovation - form, functions and meaning of innovation, perceived attributes of innovation, preventive innovation

Unit-V. Adoption**(10 Lectures)**

Definition, adoption process – diffusion network – the innovation decision process, the innovation decision period, rate of adoption, mandates for adoption, over adoption, adopter categories, measurement of adoption, role of extension agent in the adoption and diffusion of innovation.

Recommended Reading

1. Gupta, D. (2007). Development communication in Rural Sector. New Delhi:
 2. Meenakshi Raman and Sangeetha Sharma. (2013). Technical Communication-Principles and Practice. New Delhi: Oxford University Press
 3. Mukhopadhyay Abhijeet Publication
 4. Nair, R. (1993). Perspectives in Development Communication. New Delhi:
 5. Nisha, M. (2006). understanding Extension Education. New Delhi: Kalpay Publications
 6. Parveen Pannu and Yuki Azaad Tomer. (2012). Communication Technology for Development. New Delhi: International Publishing House Pvt Ltd.
 7. Ray, G.L. (2015). Extension Communication and Management. Ludhiana: Kalyani Publishers
 8. Reddy, A.A. (2001). Extension Education. Bapatla: Sri Lakshmi Press
 9. Rogers Everett, M. (2003). Diffusions of Innovations. 5th Edition. New York: Sage Publication
 10. Singh, U.K. and Nayak, A.K. (2007). Extension Education. New Delhi: Common The Free Press, Wealth Publishers
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HOME SCIENCE PRACTICAL- AMJ 1E LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Preparation of charts, posters, flash cards, Pamphlet, Notice
2. Preparation of IEC material on various topics for different
3. Selecting the target audience
4. Project preparation on specific area in development communication
5. Case studies in development communication

Recommended Reading

1. Gupta, D. (2007). Development communication in Rural Sector. New Delhi:
 2. Meenakshi Raman and Sangeetha Sharma. (2013). Technical Communication-Principles and Practice. New Delhi: Oxford University Press
 3. Nair, R. (1993). Perspectives in Development Communication. New Delhi:
 4. Nisha, M. (2006). understanding Extension Education. New Delhi: Kalpay Publications
 5. Parveen Pannu and Yuki Azaad Tomer. (2012). Communication Technology for Development. New Delhi: International Publishing House Pvt Ltd.
 6. Ray, G.L. (2015). Extension Communication and Management. Ludhiana: Kalyani Publishers
 7. Reddy, A.A. (2001). Extension Education. Bapatla: Sri Lakshmi Press
 8. Rogers Everett, M. (2003). Diffusions of Innovations. 5th Edition. New York: Sage Publication
 9. Singh, U.K. and Nayak, A.K. (2007). Extension Education. New Delhi: Common The Free Press, Wealth Publishers
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II. ADVANCE MAJOR COURSE- AMJ 2A: (Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75

Pass Marks: Th (SIE + ESE) = 30

Instruction to Question Setter for

Semester Internal Examination (SIE 10+5=15 marks):

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer

Note: There may be subdivisions in each question asked in Theory Examinations.

A. NUTRITION FOR HEALTH AND PHYSICAL FITNESS

Theory: 60 Lectures

Course Description

Integration and application of principles of sound nutrition and physical activities to optimize the physiological, psychological, and social lifelong development of the individual and use of scientific principles and current technological advances, helps to assess and evaluate physical fitness, body composition, dietary patterns, energy expenditure, and their interrelationships.

Learning Objectives:

1. Understand the Importance of Nutrition, Fitness and Health
2. Gain Knowledge on Exercise Physiology and Nutrition for Physical Activity
3. Comprehend the Technique and Gadgets for Physical Activity Training
4. Understand the Risks of Hypokinetic Diseases
5. Understand the principles of Exercise and Stress Management

Learning Outcomes:

Upon successful completion of the course students shall be able to:

1. Explain the principles of physical fitness and nutrition (such as body composition, energy intake, energy expenditure, and the acute and chronic physical changes related to exercise and nutrition) complement each other in helping to develop physiological well-being and overall health.
2. Explain the principles of fitness and nutrition (such as setting realistic short-term behavior change goals and the relationship of exercise and diet to stress reduction) complement each other in helping to develop psychological well-being and overall health.
3. Identify some of the social and cultural influences on food habits and exercise/activity patterns.
4. Evaluate current nutritional information with regard to its contribution to Health and physical fitness.

Course Content

Unit-I. Health and Fitness

(10 Lectures)

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

Unit-II. Exercise Physiology and Nutrition for Physical Activity

(16 Lectures)

Pulmonary, Cardiovascular Regulation and integration, Skeletal and neural control,
Endocrines and exercise Nutrition & Physical performance

Physical fitness: cardio respiratory fitness, muscular strength, muscular endurance, body composition and flexibility

Energy systems, muscles and physical performance-ATP-CP energy systems, Lactic Acid energy systems, Oxygen energy systems, Glycogen depletion

Endurance Training-Muscle and Muscle fibers

Optimal Nutrition and Energy needs for optimum performance e.g. athletes Exercise and fluid loss, Hydration, Nutrition supplements, Ergogenic Aids

Unit-III. Physical Activity Training

(12 Lectures)

Aerobic and anaerobic training -To enhance Cardio Vascular Endurance, Flexibility and Body Composition,

Measurement of PAL,

Benefits of Fitness training and Gadgets for measuring PA –Motorized Treadmill, (aerobic Fitness),

Functional Trainer,

Fluid Rower (Upper body), Elliptical Bicycle and Bicycle Ergometer (Lower body), 3.10 Stretch Trainer (Whole body),

3.11 Multi Gym (9, 12, 16 station) for different muscle groups

Unit-IV. Diseases due to Faulty/Poor Food Habits and Physical Inactivity

(12 Lectures)

Life Style related diseases/disorders (Non communicable Disease conditions) - Meaning Causative Factors and Diet Modification/evidence-based guidelines for

Underweight, Obesity,

Diabetes mellitus, Hypertension, Cancer

Cardiovascular Disease, Anemia

Unit-V. Exercise, Stress and Health Management

(10 Lectures)

Stress Assessment and Management

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

Yoga and Meditation for Health, Clinical Exercise

Physiology for Cancer,

CV and Pulmonary rehabilitation

Recommended Reading

1. Werner W. K Hoejer (1989), *Life time Physical Fitness and Wellness*, Morton Publishing Company, Colorado.
 2. Mishra, S. C (2005) *Physiology in Sports*. Sports Publication, New Delhi
 3. Greenberg, S. J and Pargman, D (1989) *Physical Fitness – A Wellness Approach* Prentice Hall International (UK) Limited, London
 4. Swaminathan M. (2008) *Essentials of Food and Nutrition* Bangalore Printing Publishing Co. New Delhi
 5. McArdle, W. D, Frank I. Katch, F. I and Victor L. Katch (1996) *Exercise Nutrition: Energy Nutrition and Human Performance*. William & Wilkin Publishing USA.
 6. Mahan, K and Stump, E. S (1996) *Krause Food and Nutrition and Diet Therapy* W.B Saunders Company, USA.
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HOME SCIENCE PRACTICAL- AMJ 2A LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Aerobic and Anaerobic Exercises
2. Relaxation Techniques,
3. Stress Assessment and Management
4. Yoga and Meditation
5. Visit to Fitness Centre: Observational report and 2 Case studies
6. Desk review of ergogenic aids available in the market
7. Use of non-invasive equipment's like Pedometer, pulse oximeter, step test, Omron's body composition analyser, home monitoring BP equipment to assess the nutritional status

Recommended Reading

1. Werner W. K Hoejer (1989), *Life time Physical Fitness and Wellness*, Morton Publishing Company, Colorado.
 2. Mishra, S. C (2005) *Physiology in Sports*. Sports Publication, New Delhi
 3. Greenberg, S. J and Pargman, D (1989) *Physical Fitness – A Wellness Approach* Prentice Hall International (UK) Limited, London
 4. Swaminathan M. (2008) *Essentials of Food and Nutrition* Bangalore Printing Publishing Co. New Delhi
 5. McArdle, W. D, Frank I. Katch, F. I and Victor L. Katch (1996) *Exercise Nutrition: Energy Nutrition and Human Performance*. William & Wilkin Publishing USA.
 6. Mahan, K and Stump, E. S (1996) *Krause Food and Nutrition and Diet Therapy* W.B Saunders Company, USA.
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OR**ADVANCE MAJOR COURSE- AMJ 2B:** (Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75

Pass Marks: Th (SIE + ESE) = 30

Instruction to Question Setter for***Semester Internal Examination (SIE 10+5=15 marks):***

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer

Note: There may be subdivisions in each question asked in Theory Examinations.

B. ADULTHOOD AND AGING**Theory: 60 Lectures****Course Description**

The course introduces students to the concept of adult development and aging. It explains basic developmental transitions in adulthood and late adulthood or old age. Various facets of adult development across domains and developmental needs of the elderly are discussed. Cultural and gender differences in the experiences of aging are included.

Learning Objectives

1. Understand the theoretical significance of adulthood in life span development with special reference to aging
2. Develop a culturally relevant understanding of issues and concerns of adulthood and aging
3. Sensitize students to transitions in adult life and preparation for old age from a gender perspective
4. Create awareness about policy provisions for adults and elderly across various contexts (work, family, retirement, health, welfare).
5. Prepare students for outreach activities with varied groups of adults and elderly.

Learning Outcomes

1. Explain variations in the experiences of adulthood and old age across cultures and genders
2. Discuss factors that affect physical, cognitive and socio-emotional development during adulthood and old age
3. Identify developmental needs of varied groups of adults and elderly across contexts
4. Execute developmental programs of intervention for varied groups of adults and elders

Course Content**Unit-I Stages of Adult Development and the Process of Aging: A Theoretical Overview**

Contemporary changes, increase in life expectancy and decrease in death rate

Stages of Adulthood and Aging: Emerging adulthood (18-25), mature adulthood (25-45), middle age (45-55), late adulthood (55-65), old age (65 and above)

Characteristics and needs in different stages of adulthood

Theories of adult development and aging (Erikson's theory, Wisdom theories, Disengagement, Activity, Ashrama Dharma framework) **(10 Lectures)**

Unit-II Development in Emerging and Early Adulthood (12 Lectures)

Definition, characteristics, developmental tasks

Physical changes - Cardiovascular and Respiratory systems, Motor performance, Immune system

Cognitive development - Changes in mental abilities - Crystallized and fluid intelligence, Information processing - Speed, Attention, Memory, Problem solving and Creativity

Life transitions and adjustments during early adulthood: Exploring sexual orientations, stable romantic relationships, alternative life choices, marriage, family life, parenting and caregiving, social mobility

Cultural, gender and social class variations in the experience of adulthood and aging

Interpersonal relationships and responsibility challenges in different spheres of life (balancing work and family, socio-cultural responsibilities, health challenges, emotional stresses, financial security)

Unit-III Development in Middle and Late Adulthood (12 Lectures)

Definition, characteristics, developmental tasks,

Physical and cognitive changes, Changes in interests, Social, emotional, vocational changes, Relationships at midlife - marriage and divorce, changing parent-child relationships, grandparenthood, siblings, friendships, relationship across generations- Middle aged children and their aging parents

Preparation for old age (From work to retirement, emotional, financial, social and familial transitions,)

Contextual variations in the experience of late adulthood and aging (rural-urban, socio-economic, employed-unemployed, organized-unorganized sector etc.)

Unit-IV Development in Old Age (14 Lectures)

The phenomenon of aging - biological, psychological, sociological and functional age; optimal aging, normal aging, primary and secondary aging and successful aging

Gerontology - Definition, concept, importance and scope

Types - Social gerontology, Bio gerontology, Medical gerontology (Geriatric)

Theories of aging process – Sociological, Psychological and Biological theories of aging.

Psychosocial development in old age,

Changing relationships in old age – marriage and divorce, widowhood, never-married, childless older adults, siblings, friendships

Myths and realities of aging Adjustments - Physical and mental changes,

Vocational adjustments- adjustment to retirement, different living arrangements, familial roles and relationships.

Dealing with stressful life events, divorce, terminal illness, death and bereavement Overview of Alzheimer, Dementia, Parkinson's disease Common abuses among elderly-physical, emotional, psychological, verbal and financial, reporting abuse, Adult Protective Services.

Policy provisions for the elderly: Global and national

Unit-V Aging and Well-Being in the 21st Century (12 Lectures)

Demographic profile of elderly in the world and India

Living arrangements (intergenerational families, old age homes, institutions etc.) and new models of care giving

Overcoming mental health challenges (loneliness, depression, anxiety, dementia, other age-related diseases etc.)

Life style changes and holistic health (physical well-being, food choices, yoga and restorative fitness, counseling and therapy, social and interpersonal support systems)

Technology and aging (use of internet, advances in health and medical treatment, gadgets supporting safety and security of elderly)

Leisure time activities and innovative models of developmental intervention

Recommended Readings:

1. Arnett, J. J., & Jensen, L. A. (2019). *Human Development: A cultural approach* (3rded.). New York: Pearson.
 2. Cavanaugh, J., & Blanchard-Fields, F. (2011). *Adult development and aging* (7thed). Stamford, CT: Cengage Learning.
 3. Kakar, S. (Ed.). (1993). *Identity and adulthood*. New Delhi: Oxford University Press.
 4. Lamb, S. E. (Ed.). (2012). *Aging and the Indian diaspora: Cosmopolitan families in India and abroad*. New Delhi: Orient Blackswan.
 5. Menon, U. (2013). *Women, well-being and ethics of domesticity in an Odia temple Town*. New Delhi: Springer.
 6. Rajan, I. S., Risseuv, C., & Perar, M. (Eds.). (2008). *Institutional provisions and care for the aged perspectives from Asia and Europe*. New Delhi: Anthem Press.
 7. Reddy, P.A., Devi, U., & Harinath, N. (2010). *Ageing: The global phenomena: issues and strategies*. New Delhi: Sonali.
 8. Sahoo, F. M. (Ed.). (2009). *Behavioral issues in ageing: Care, concern and commitment*. New Delhi: Concept Publishers.
 9. Sahu, C. (1988). *Problems of aging among Indian tribes*. New Delhi: Sarup & Sons.
 10. Shankardass, M.K. (Ed.). (2020). *Ageing issues and responses in India*. New Delhi: Springer.
 11. Soneja, S. (2001). *Elder abuse in India*. Report for the World Health Organization.
 12. Srivastava, V. (2010) *Women and ageing*. New Delhi: Rawat Publisher.
 13. Tanner, D., & Harris, J (2007). *Working with the older people*. New York: Routledge publishers.
 14. Tornstram, L. (2005). *Gerotranscendence: A developmental theory of positive aging*. New York: Springer.
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HOME SCIENCE PRACTICAL- AMJ 2B LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Preparation of an album on developmental transitions, individual and family life transitions during adult life.
2. Visit to old age home or specialized living arrangements for elderly.
3. Visit to leisure facilities for elderly like laughing clubs, recreational clubs
4. Visiting your parents' workplace to understand their roles and responsibilities.
5. Documenting your mother's and grandmother's life aspirations and experiences before and after marriage.
6. Preparing a list of specialized services for the elderly in the city and / or preparing an elderly support kit (support with amenities, important phone numbers, medicines, reminders etc.)
7. Planning a hands-on workshop session for teaching internet and smart phone use to elderly
8. Interviewing elderly couples about their relationship, life challenges and satisfactions
9. Planning a panel discussion or awareness session on welfare policies and policy recommendations for older persons in India
10. Discussing intergenerational relationships of emerging/young adults and parents as portrayed in cinema, advertisements and social media

Recommended Readings:

1. Arnett, J. J., & Jensen, L. A. (2019). Human Development: A cultural approach (3rded.). New York: Pearson.
2. Cavanaugh, J., & Blanchard-Fields, F. (2011). Adult development and aging (7thed). Stamford, CT: Cengage Learning.
3. Kakar, S. (Ed.). (1993). Identity and adulthood. New Delhi: Oxford University Press.
4. Rajan, I. S., Risseuv, C., & Perar, M. (Eds.). (2008). Institutional provisions and care for the aged perspectives from Asia and Europe. New Delhi: Anthem Press.
5. Reddy, P.A., Devi, U., & Harinath, N. (2010). Ageing: The global phenomena: issues and strategies. New Delhi: Sonali.
6. Sahoo, F. M. (Ed.). (2009). Behavioral issues in ageing: Care, concern and commitment. New Delhi: Concept Publishers.
7. Sahu, C. (1988). Problems of aging among Indian tribes. New Delhi: Sarup & Sons.
8. Shankardass, M.K. (Ed.). (2020). Ageing issues and responses in India. New Delhi: Springer.
9. Soneja, S. (2001). Elder abuse in India. Report for the World Health Organization.
10. Srivastava, V. (2010) Women and ageing. New Delhi: Rawat Publisher.
11. Tanner, D., & Harris, J (2007). Working with the older people. New York: Routledge publishers.
12. Tornstram, L. (2005). Gerotranscendence: A developmental theory of positive aging. New York: Springer.

OR**ADVANCE MAJOR COURSE- AMJ 2C:** (Credits: Theory-04, Practicals-02)**Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75****Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):***

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer

Note: There may be subdivisions in each question asked in Theory Examinations.

C. APPAREL CONSTRUCTION**Theory: 60 Lectures****Course Description**

The course introduces the basic principles of apparel construction including pattern and fabric selection. The course aims at developing skills in using knowledge of apparel construction required to be employed in the field of apparel industry and entrepreneurship. It deals with the tools and techniques required for apparel construction. It covers the pattern making and grading techniques required for making apparels. It gives hands on experience for apparel construction which is the pre requisite of apparel industry.

Learning Objectives:

1. Learns the requirement for apparel construction
2. Understand the use, significance and selection of tools and equipment for apparel construction
3. Understand the coordination of fabric, pattern and supportive material.
4. Enhance the understanding of drafting and pattern making.
5. Acquire skills of apparel construction
6. Understand fit of the garment.

Learning Outcomes:

Successful completion of this course will enable students to

1. Know the requirements for apparel construction
2. Describe the use and significance of tools and equipment for apparel construction
3. Explain drafting and pattern making method.
4. Explore the skills of apparel construction
5. Adapt basic block to different designs.
6. Evaluate fit of the garment

Course Content**Unit-I. Introduction to Apparel Construction****(12 Lectures)**

Elements of apparel construction

Grain, Seams, Finish, Workmanship Guides to sew fabrics

Threads, needles, seams and its co-relation to fabrics Uses of essentials tools and supplies

Sewing Needles, hand sewing tools, marking tools, measuring tools, cutting tools, pressing tools, threads, special tools, trims & tapes, buttons & closures.

Unit-II. Basics of Apparel Construction**(12 Lectures)**

Body measurements (BM):
Principles of taking BM,
Taking accurate body measurements
Measuring from a garment.
Size charts
Standard size charts for Kids, Men and Women
Ease allowance for various fit.
Comparison of standard size charts from different countries and brands
Fabric Requirement:
Calculation of fabric needed for various garments.
Optimising the fabric requirement
Principles and methods of grading and sizing

Unit-III. Pattern Making**(12 Lectures)**

Introduction to pattern making
Pattern making tools
Pattern making techniques: Drafting, Draping and Flat pattern technique
Darts and their manipulation, added fullness and contouring.
Principles of pattern making for: Upper garment, Lower garment, Sleeves, Collar, Dresses

Unit-IV. Fabric Layout, Cutting and Marking**(12 Lectures)**

Fabric preparation
Laying out checks, plaids & directional fabrics,
Marking with chalk, pencil or liquid markers
Cutting and sewing tips

Unit-V. Selection of Fabric and Accessories**(12 Lectures)**

Fabrics: Easy to stitch, special fabrics, textured and patterned fabrics Selection of appropriate fabrics for apparels.
Accessories and trimmings: types and use
Appropriate combination of accessories, trims and materials

Recommended Readings:

1. Aldrich, W. (1988). Metric Pattern Cutting. Unwin Hyman Ltd., London.
 2. Amaden, C.& Crawford (1995) Fashion Your Own Skirts the Simple way Amaden-Crawford Associates, USA.
 3. Armstrong, H. (2012). Patternmaking for Fashion Design Pearson Education, Inc, New Delhi.
 4. Bray N., (1986) Dress Pattern Designing: The Basic Principles of cut and fit, Blackwell Publishing.
 5. Hollen, N.R. &Kundel, C.J. (1993). Pattern Making by the Flat-Pattern Method. Prentice Hall, New Jersey.
 6. Kopp, E., Rolfo, V. & Zelin, B. (1995). Designing Apparel through the Flat Pattern. Fairchild Publications New York.
 7. Singer. (1989). Sewing Pants that Fit. Cowles Creative Publishing Inc. Minnesota, USA
 8. Thomas, A. J. (1993). Art of Sewing. UBS Publishers Distributions Ltd. New Delhi
 9. Zarpakar, K.R. (2008). Zarpakar System of Cutting. Navneet Publication (India) Ltd., Mumbai.
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HOME SCIENCE PRACTICAL- AMJ 2C LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Development of basic block
 - a) Upper and
 - b) Lower
2. Drafting and construction of different types of
 - a) Collars
 - b) Plackets and
 - c) Sleeves
3. Drafting and construction of
 - a) Salwar
 - b) Churidar
4. Adaptation of basic block for designing of
 - a) Frock
 - b) Kurta
 - c) Blouse
 - d) Shirt
5. Construction of above designed patterns.
 - a) Maintaining of journal with the details of the practical work in writing and supported with samples.

Recommended Readings:

1. Aldrich, W. (1988). Metric Pattern Cutting. Unwin Hyman Ltd., London.
 2. Amaden, C. & Crawford (1995) Fashion Your Own Skirts the Simple way Amaden-Crawford Associates, USA.
 3. Armstrong, H. (2012). Patternmaking for Fashion Design Pearson Education, Inc, New Delhi.
 4. Bray N., (1986) Dress Pattern Designing: The Basic Principles of cut and fit, Blackwell Publishing.
 5. Hollen, N.R. & Kundel, C.J. (1993). Pattern Making by the Flat-Pattern Method. Prentice Hall, New Jersey.
 6. Kopp, E., Rolfo, V. & Zelin, B. (1995). Designing Apparel through the Flat Pattern. Fairchild Publications New York.
 7. Singer. (1989). Sewing Pants that Fit. Cowles Creative Publishing Inc. Minnesota, USA
 8. Thomas, A. J. (1993). Art of Sewing. UBS Publishers Distributions Ltd. New Delhi
 9. Zarapkar, K.R. (2008). Zarapkar System of Cutting. Navneet Publication (India) Ltd., Mumbai.
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OR**ADVANCE MAJOR COURSE- AMJ 2D:** (Credits: Theory-04, Practicals-02)**Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75****Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):***

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer

Note: There may be subdivisions in each question asked in Theory Examinations.

D. PRINCIPLES OF INTERIOR DESIGN**Theory: 60 Lectures****Course Description**

Designing in modern day's gains significance both in terms of planning an interior space functionally as well as aesthetically. The Course exposes the students to the concept of interior design and the trends emerging periodically in terms of purpose, materials and methods. Furthermore, they get an opportunity to have hands-on experience in using the basic elements and principles of design in day to day living

Learning Objectives

1. Gain knowledge and interpret the elements and principles of art in interior design
2. Use the elements and principles to create beautiful designs and interiors
3. Apply theoretical knowledge for practical situations
4. Decipher the nuances of Indian interior design

Learning Outcomes

1. Appreciate growth and development of interior design and decoration in India
2. Enabling students distinguish between Interior decoration and Interior design
3. Analyze place of elements and principles in interior designing
4. Gain knowledge on Institutes offering Interior design as professional Courses

Course Content**Unit I. Interior Design vs. Interior Decoration****(12 Lectures)**

Interior Design and Interior Decoration: concept and basic differences Aims of Interior Design:

Beauty, Expressiveness and Functionalism

Characteristics - cultural and ethnic influences

Popular interior designers in India Interior designer – definition and functions, Characteristics of an Interior designer

Interior Design Institutes in India

IIDA – International Interior Design Association; IIID- Institute of Indian Interior Designers – vision and functions

Unit II. Fundamentals in Designing**(12 Lectures)**

Design: Definition and classification

Structural design – importance and requirements of good structural design
Decorative design – importance and requirements of good decorative design

Classification of decorative design- naturalistic, conventional, geometric, abstract, historic and biomorphic. Relation of good taste and perception of Interior Design

Unit III. Design Elements**(12 Lectures)**

Elements of design: Meaning, importance, characteristics of each element and their use in designing

Line- meaning and definition, types-actual, implied, psychic and purpose

Line and direction-vertical, horizontal, diagonal, curved, zigzag;

Shape and form: meaning and basic difference between the two

Elements of shapes and forms- types- 2D - square, triangle, circle and polygons and their 3D forms – cube, pyramid/cone, sphere etc

Rectilinear Vs angular forms

Space – meaning and perception, negative and positive space, significance in designing

Size – small to large

Texture – meaning and classification- tactile and visual textures, structural and applied

Texture; Use of Textures in Interiors –Texture and Scale, Texture and Light, Texture and Light, texture and Colour

Colour –spectrum, Theories, qualities, The Prang Colour System, Effects of colour Colour (Physical, Emotional) Principles of design in use of colour, Colour schemes (related, contrasting), consider the choice of colour in different rooms

Pattern and ornamentation – conceptual meaning, significance in designing; Guidelines to use pattern in design. Motifs types and arrangement; Motif development- fundamental step in designing process

Light- significance, emotional effect, types and use

Unit IV Design Principles**(12 Lectures)**

Principles of design - Meaning, nature, types and significance in designing

Balance: meaning and definition, classification

Rhythm: meaning and definition, types

Emphasis– meaning and definition, types and methods of achieving

Proportion: meaning and definition, Greek/Golden oblong in space division, concept of scale and law of space relationship in designing

Harmony: meaning and definition, methods of achieving

Evaluation of design-criteria for evaluation

Unit V Accessories in Interiors**(12 Lectures)**

Accessories: Definition and importance Classification –functional, decorative and both

Selection and placement of accessories

Pictures as accessories - types of picture, selection of pictures, mounting, framing and hanging

Art objects as accessories – wall hangers and paintings

Crafts as accessories - pottery, wood craft, basket making;

Sculpture, Antiques, indoor plants and flowers as accessories

Recommended Readings:

1. Asher, F.M. (2003). Art of India – Prehistory to the Present. Encyclopedia Britannica Inc.
 2. Bhatt,P. (2011). Foundation of Art and Design. Mumbai: The Lakhani Book Depot.
 3. Chaudhari, S.N.(2005). Interior Design.Jaipur: Aavishkar Publishers
 4. Craig, H and Rush,O.(1969).Homes with Character. New Delhi: Universal Book Store
 5. De Van D. S., Darlene, M, K., Logan, K, C., and Szekely, L. (1980). Introduction to Interior Design. New York: Macmillan Publishing Co. Inc.
 6. Gandotra, V. ,Shukul, M., and Jaiswal, N .(2010-11). Introduction to Interior Design & Decoration. New Delhi: Dominant Publishers and Distributors. (ISBN No.81-7888-295-7)
 7. Goldstein,H., and Goldstein, V. (1967).Art in Everyday Life. New Delhi: Oxford and IBH Publishing Co.
 8. Kasu, A.A (2005).Interior Design. Delhi: Ashish Book Centre
 9. Mullick, P. (2016).Text Book of Home Science.(4th Ed.).Kalyani Publishers(ISBN13 9789327262766)
 10. Nissen,L., Faukner,R., and Faulkner S .(1994). Inside Today’s Home (6th Ed.).Florida : Harcourt Brace College Publishers (ISBN No. 0-03-0555492-6)
 11. Rutt, A, H. (1969).Home Furnishing. New Delhi: Wiley Eastern Pvt. Ltd.
 12. Seetharaman, P., and Pannu, P.(2010). Interior Design and Decoration.New Delhi : CBS Publishers & Distributors Pvt. Ltd(ISBN No. 81-239-1192-0)
 13. Shaw, R.B. (2003).Interiors by Design. London, New York: Ruland Peters and Small,
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HOME SCIENCE PRACTICAL- AMJ 2D LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lectures**

1. Create an album with professional details on any five popular interior designers in India
2. Developing design using basic motif for various application in interiors – minimum five applications.
3. Evaluation of art objects for design, elements, principles, colour, material and purpose - minimum five objects.
4. Designing greeting cards for different occasions - any five occasions.
5. Developing design for floor decoration - Flower carpet, Rangoli, Alpana
6. Area arrangement using principles of design and colour – living, dining, bed, pooja and children's room.
7. Developing designs suitable for accessories – structural and decorative
8. Preparing wall hangings using art principles – any two wall hangings
9. Preparing a portfolio on all art work/ objects done and antiques
10. Display of all exercises done for evaluation by the teacher

Recommended Readings:

1. Asher, F.M. (2003). Art of India – Prehistory to the Present. Encyclopedia Britannica Inc.
2. Bhatt, P. (2011). Foundation of Art and Design. Mumbai: The Lakhani Book Depot.
3. Chaudhari, S.N. (2005). Interior Design. Jaipur: Aavishkar Publishers
4. Craig, H and Rush, O. (1969). Homes with Character. New Delhi: Universal Book Store
5. Gandotra, V., Shukul, M., and Jaiswal, N. (2010-11). Introduction to Interior Design & Decoration. New Delhi: Dominant Publishers and Distributors. (ISBN No.81-7888-295-7)
6. Goldstein, H., and Goldstein, V. (1967). Art in Everyday Life. New Delhi: Oxford and IBH Publishing Co.
7. Kasu, A.A (2005). Interior Design. Delhi: Ashish Book Centre
8. Mullick, P. (2016). Text Book of Home Science. (4th Ed.). Kalyani Publishers (ISBN13 9789327262766)
9. Rutt, A, H. (1969). Home Furnishing. New Delhi: Wiley Eastern Pvt. Ltd.
10. Seetharaman, P., and Pannu, P. (2010). Interior Design and Decoration. New Delhi: CBS Publishers & Distributors Pvt. Ltd (ISBN No. 81-239-1192-0)

OR**ADVANCE MAJOR COURSE- AMJ 2E:** (Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75

Pass Marks: Th (SIE + ESE) = 30

Instruction to Question Setter for***Semester Internal Examination (SIE 10+5=15 marks):****There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.**The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)****End Semester Examination (ESE 60 marks):****There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer**Note: There may be subdivisions in each question asked in Theory Examinations.***E. EXTENSION MANAGEMENT****Theory: 60 Lectures****Course Description**

Extension Management creates awareness amongst the students to make them participate in various programmes and attainment of organizational goals and objectives with and through other people. It further explores the influence of various issues for the success of its programmes.

Learning Objectives

1. Develop an understanding about the meaning, functions and characteristics of Extension Management
2. Learn the requirements and Levels of planning
3. Learn the key issues in controlling
4. Understand the functions of organizational Management

Learning Outcomes

1. Understand the concept related to Extension Management
2. Comprehend the purpose of planning and organizing
3. Focus on requirement of effective staffing for successful Management
4. Analyse the significance of effective controlling

Course Content**Unit-I. Extension Management****(12 Lectures)**

Meaning, function, basic elements, characteristics of extension management

Concept, need, nature, objectives and functions of extension

Informal, formal and non-formal education and differences between formal and extension education

Unit-II. Planning**(12 Lectures)**

Definition, requirement of effective planning, levels of planning, elements of planning, contingency planning

Unit-III. Organizing**(12 Lectures)**

Definition, requirements of effective organizing, line and staff function

Span of management, scalar principle, delegation of authority, use of committee, coordination, involvement of organizations at the local level input management, common mistakes in organization

Unit-IV. Staffing**(12 Lectures)**

Definition, requirements of effective staffing, training for professional development, training strategy

Training Methods – lecture, group discussion, seminar, panel discussion, colloquium, symposium, workshop, syndicate method, case study role playing, brain storming, buzzy session, sensitivity training, interactive video, video conferencing, performance appraisal, stress in managing, organizational conflict, grievances in organizations.

Unit-V. Controlling**(12 Lectures)**

Definition, requirements of effective controlling, monitoring and evaluation, supervision, budgeting and auditing, reporting

Change agent success, change agent problems a study in organizational management, reaching the weaker sections, administration of rural credit

Recommended Readings:

1. Banerjee, S. (1981). Principles and Practice of Management. New Delhi: Oxford and IBH Publishing company
 2. Basu, C.R. (1989). Organisation and Management. New Delhi: S Chand and Co Ltd.
 3. Burton, Gene and Hanab Thakar. (1997). Management Today. New Delhi: Tata McGraw Hill Publishing Company
 4. Chandan, J.S. (1997). Management – Concepts and Strategies. New Delhi: Vikas Publishing House
 5. Koontz and Heinz Weihrich. (1990). Essentials of Management. New Delhi: Me Graw –Hill.
 6. Prasad, M.L. (1999). Principles and Practice of Management. New Delhi: Sultan Chand and Sons.
 7. Ramasamy, T. (1985).Principles of Management, Mumbai: Himalaya Publishing House.
 8. Rao, V.S.P., and Narayana P.S. (1987). Principles and Practice of Management. New Delhi: Konark Publishers Private Limited
 9. Ray, G.L. (2015). Extension Communication and Management. Ludhiana: Kalyan publications.
 10. Tripathi P.C., and Reddy, P.N. (1993). Principles of Management. New Delhi: Tata McGraw Hill
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HOME SCIENCE PRACTICAL- AMJ 2E LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Visit to an organization and understand the requirements of effective staffing.
2. Interact with the staff organization and understand their functions.
3. Carryout a case study on successful management of panchayat.
4. Select a topic related to women and issue faced by them and describe ways to assess them.
5. Identify the change agent problems and suggest ways to solve the same.
6. Identify the ways to handle the grievances.

Recommended Readings:

1. Banerjee, S. (1981). Principles and Practice of Management. New Delhi: Oxford and IBH Publishing company
 2. Basu, C.R. (1989). Organisation and Management. New Delhi: S Chand and Co Ltd.
 3. Burton, Gene and Hanab Thakar. (1997). Management Today. New Delhi: Tata McGraw Hill Publishing Company
 4. Chandan, J.S. (1997). Management – Concepts and Strategies. New Delhi: Vikas Publishing House
 5. Prasad, M.L. (1999). Principles and Practice of Management. New Delhi: Sultan Chand and Sons.
 6. Ramasamy, T. (1985). Principles of Management, Mumbai: Himalaya Publishing House.
 7. Rao, V.S.P., and Narayana P.S. (1987). Principles and Practice of Management. New Delhi: Konark Publishers Private Limited
 8. Ray, G.L. (2015). Extension Communication and Management. Ludhiana: Kalyan publications.
 9. Tripathi P.C., and Reddy, P.N. (1993). Principles of Management. New Delhi: Tata McGraw Hill
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SEMESTER VIII

I. ADVANCE MAJOR COURSE- AMJ 3A: (Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75	Pass Marks: Th (SIE + ESE) = 30
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Instruction to Question Setter for

Semester Internal Examination (SIE 10+5=15 marks):

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer

Note: *There may be subdivisions in each question asked in Theory Examinations.*

A. **FOOD SAFETY, SANITATION AND HYGIENE**

Theory: 60 Lectures

Course description

A study of food safety, hygiene and sanitary practices in food industries causes investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards in Food Service Industries

Learning objectives

1. Learn the various aspects of food safety
2. Understand about food laws and labeling
3. Understand the need for consumer education

Learning outcomes

1. Upon completion of this course, the student will be able to: 1. Identify causes of and prevention procedures for food-borne illness, intoxication, and infection.
2. Demonstrate good personal hygiene and safe food handling procedures; describe food storage and refrigeration techniques; explain sanitation of dishes, equipment, and kitchens including cleaning material, garbage, and refuse
3. Discuss Occupational Safety and Health Administration (OSHA) requirements and effective workplace safety programs in Food Service Industries.

Course Content

Unit-I. Introduction to Food Safety and adulteration Basic Principles of Food Safety

Food contamination: definition Sources of contamination

(12 Lectures)

Difference between food poisoning and food infection

Safety in food processing -a. Food procurement; b. Storage; c. Handling; d. Preparation e. Safety of leftover foods

Frame-work for creating enabling environment for serving safe & nutritious food at the workplace.

Regulatory compliance requirements for the canteen establishments, Food Service Industries
Safe & nutritious food tips for the employee
Factors affecting food safety and food spoilage:
Food adulteration - definition, types of adulteration in various foods- intentional, incidental and metallic contaminants

Unit-II. Food Laws and Regulations**(12 Lectures)**

National Legislation – Essential Commodities Act,
Standard of Weight and Measures Act, ISI, Mark of BIS, Agmark and PFA, FPO, Food Safety and Standards Bill 2005,
International Laws and Agreements - FAO, WHO, Codex Alimentarius, WTO, JEFA, APEDA, ISO 22000 series,
Hazard Analysis Critical Control Point (HACCP): principles of HACCP, applications of HACCP

Unit-III. Current Food Safety Standards in India**(14 Lectures)**

Current Food Safety regulations 2001,
Food Safety and Standards Authority of India, objectives of developing food safety standards, enforcement of structure and procedure,
role of food analyst, safety analysis, action by designated officer and report of food analyst
Food Safety Management System (FSMS) Good Practices/ PRPs - HACCP, GMP, GHP
Management Element / System
Statutory and regulatory requirements
Certification - HACCP, ISO 22000, FSSC 22000

Unit-IV. Sanitation Procedures**(12 Lectures)**

Basic Principles of Hygiene and Sanitation Personal hygiene and Environmental hygiene
Methods of Sanitation and Hygiene
Sterilization and disinfection using heat and chemicals
Waste product handling and control- Solid and liquid waste disposal Control of infestation- Pest control
Cleaning and sanitizing- need for efficient cleaning program, cleaning agents, equipment's,
Methods to wash, rinse and sanitizing food contact surfaces. Importance and methods of pest control;
Outlining methods of disposal of liquid, solid and gaseous waste

Unit-V. Importance of Personal Hygiene of Food Handlers**(10 Lectures)**

General principles of hygiene – personal and environmental hygiene, hygienic practices in handling and serving foods, planning and implementation of training programme for health person

Recommended Readings:

1. Mahtab, S, Bamji S, Kamala Krishnaswamy, Brahmam G.N.V, *Text Book of Human Nutrition*, Third Edition, Oxford and IBH Publishing Co. P. Ltd., New Delhi, 2012.
2. Srilakshmi, B., *Dietetics*, New Age International (P) Ltd., New Delhi, 2013.
3. Swaminathan, M., *Advanced Textbook on Food and Nutrition*, Vol. 1, Second Edition, Bangalore Printing and Publishing Co. Ltd., Bangalore, 2012.
4. *Dietary Guidelines for Indians*, ICMR, National Institute of Nutrition.

HOME SCIENCE PRACTICAL- AMJ 3A LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Microbiological Examination of different food samples
2. Bacteriological Analysis of Water
3. Assessment of surface sanitation by swab/rinse method
4. Assessment of personal hygiene
5. Biochemical tests for identification of bacteria
6. Scheme for the detection of food borne pathogens
7. Detection of common adulterant in food:
 - a) Khesari flour in besan
 - b) Vanaspati in Ghee/Butter.
 - c) Dried papaya seeds in black pepper,
 - d) Metanil yellow in turmeric or colored sweet products
 - e) Artificially foreign matter in tea (dust/leaves).

Recommended Readings:

1. Mahtab, S, Bamji S, Kamala Krishnasamy, Brahmam G.N.V, *Text Book of Human Nutrition*, Third Edition, Oxford and IBH Publishing Co. P. Ltd., New Delhi, 2012.
 2. Srilakshmi, B., *Dietetics*, New Age International (P) Ltd., New Delhi, 2013.
 3. Swaminathan, M., *Advanced Textbook on Food and Nutrition*, Vol. 1, Second Edition, Bangalore Printing and Publishing Co. Ltd., Bangalore, 2012.
 4. *Dietary Guidelines for Indians*, ICMR, National Institute of Nutrition.
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OR**ADVANCE MAJOR COURSE- AMJ 3B:**

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75**Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):***

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer

Note: There may be subdivisions in each question asked in Theory Examinations.

B. INTERPERSONAL RELATIONSHIP AND FAMILY DYNAMICS**Theory: 60 Lectures****Course Description**

The course prepares students for an understanding of contemporary interpersonal relationships in families and in society, from a psycho-social perspective. It includes a focus on concepts and theories of interpersonal communication, with an emphasis on types of relationships (family/peers/workplace), relationship development, communication strategies, stress and conflict management.

Learning Objectives

1. Understand interpersonal relationships and family dynamics in contemporary India.
2. Understand one's own self and others with the aim of improving interpersonal relationships.
3. Understand theories and perspectives related to interpersonal relationships and family dynamics.
4. Develop an insight into interpersonal stress, conflict and its resolution.

Learning Outcomes

1. Explain basic components and processes involved in interpersonal relationship
2. Describe theoretical perspectives in understanding interpersonal relationships and family dynamics.
3. Use one's self-awareness in understanding significant others. Illustrate the significance of self-awareness in our understanding of significant others.
4. Formulate strategies for developing positive dynamics in different relationships and managing conflict.

Course Content**Unit-I Understanding the Self****(12 Lectures)**

Self-Awareness—personality characteristics, cultural beliefs, values, expectations and ideas guiding behavior

Self-identity— Identifying one's own philosophy and goals of life (influenced by personal history, socialization and context)

Personality—factors that shape one's personality and its influence on behavior and interpersonal communications

Self with family/parents/siblings, peers, social/professional organizations The impact of media on the self

Unit-II Perspectives and Theories (10 Lectures)

Perspectives: On friendships, love, family and other interpersonal relationships

Ethological Perspective
Psychological Perspective
Sociological Perspective
Cross-cultural perspectives

Theories:

Social Exchange Theory
Triangular theory of love - Robert Sternberg

Unit-III Basics of Interpersonal Communication (10 Lectures)

Process and components of basic communication

Interpersonal communication: communication of ideas and feelings, self-disclosure, crediting and criticism

Nurturing positive interpersonal communication and dynamics: perspective taking, empathy, listening and feedback skills.

Resolving interpersonal conflicts: Types of conflicts and management skills (in relation with marital, parental, workplace, family, and friends)

Unit-IV Life Choices (Education, Career, Romantic Relationships) (12 Lectures)

Engagement with life goals and conscious life choices- in view of personal philosophy, demands of the family, peers, societal norms.

Understanding intimate, love and romantic relationships within a cultural context

Career choices and professional relationships- developing trust, mutual respect, mindfulness, appreciation for diversity and open communication.

Understanding the role of adjustments in relationships- myths, misconceptions and factors influencing adjustment patterns.

Unit-V Family Dynamics (16 Lectures)

Understanding Family Dynamics- Definition, function and scope

Factors that shape roles, relationships and family dynamics (family size, age composition, structure, social and financial status, gender and ordinal position, power, hierarchy and patriarchy, employment) and how these dynamics shape individual personality and behavior.

Change and evolution of the family - Family life cycle and stages

Changing roles and dynamics through significant life events: romantic relationships, partner selection, marriage, childbirth, parenting, career trajectories and economic status, health issues, loss of loved ones.

Gender norms and roles in family dynamics

Interpersonal communication within families: Managing expectations (family/self/society), self-goals, adjustments and negotiations.

Forms of family crisis: Marriage, divorce/separation, remarriage, financial instability, poor work-family balance, illness, death, childlessness, child abuse/neglect, family violence, peer pressure, addiction, rape, suicide, unemployment, natural disasters, epidemics and wars.

Family cohesion- the role of effective communication, compassion, perspective-taking, role distribution, positive conflict resolution, and teamwork.

Agencies offering support: Marriage and family therapists, Family courts, Child guidance clinics, counseling and rehabilitation centers.

Recommended Readings:

1. Arnett, J.J. (2005). Youth, cultures and societies in transition: The challenge of growing up in a globalized world. In F. Gale & S. Fahey. (Eds.), *Youth in Transition – The challenges of generational change in Asia* (pp 22-35). Bangkok: Regional Unit for Social and Human Sciences in Asia and the Pacific.
 2. Baron, R. A., Byrne, D., & Branscombe, N. R. (2006). *Social psychology*. ND: Pushp Print Services.
 3. Chaudhary, N., & Shukla, S. (2019). Family, identity, and the individual in India. In G. Misra (Ed.), *Psychology: Volume 2: Individual and the social: Processes and issues* (pp.143-189). New Delhi, India: Oxford University Press.
 4. D’cruz, P., & Bharat, S. (2001). Beyond joint and nuclear: The Indian family revisited. *Journal of Comparative Family Studies*, 32(2), 167-194.
 5. Duck, S. (1998). *Human relationships*. ND: Sage.
 6. Ganguly-Scrase, R. (2007). Victims and agents: Young people’s understanding of their social world in an urban neighbourhood in India. *Young*, 15, 321-341.
 7. Gardiner, H.W., Mutter, J.D. & Kosmitzki, C. (1998). *Lives across cultures: cross-cultural human development*. Boston: Allyn and Bacon.
 8. Gudykunst, W. B., & Toomey, S. T. (1998). *Culture and interpersonal communication*. ND: Sage.
 9. Mines, M. (1998). Conceptualizing the person: Hierarchical society and Individual autonomy in India. *American Anthropologist*, 90(3), 568-579.
 10. Pestonjee, D. M. (1992). *Stress and coping: The Indian experience*. New Delhi: Sage
 11. Weiten, W., & Llyod, M. A. (2004). *Psychology applied to modern life*. Singapore: Thompson Asia Pvt. Ltd.
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HOME SCIENCE PRACTICAL- AMJ 3B LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lectures**

1. Group discussion/role play/simulations on interpersonal relationships
2. Conduct workshops on: cultural variations in interpersonal relationships, family dynamics, verbal vs non-verbal communication, and social networking.
3. Plan an interaction with a counselor or therapists working in the area of interpersonal conflicts (in the family family/peer group/parent-child dyad/workplace).
4. Conduct a workshop on enhancing family cohesion and conflict resolution
5. Select a form of family crisis or stress. Describe ways of preventing and managing the crisis.
6. Create posters about ways to improve interpersonal communication skills and patters of relating to enhance resiliency in relationships.

Recommended Readings:

1. Arnett, J.J. (2005). Youth, cultures and societies in transition: The challenge of growing up in a globalized world. In F. Gale & S. Fahey. (Eds.), Youth in Transition – The challenges of generational change in Asia (pp 22-35). Bangkok: Regional Unit for Social and Human Sciences in Asia and the Pacific.
2. Baron, R. A., Byrne, D., & Branscombe, N. R. (2006). Social psychology. ND: Pushp Print Services.
3. Chaudhary, N., & Shukla, S. (2019). Family, identity, and the individual in India. In G. Misra (Ed.), Psychology: Volume 2: Individual and the social: Processes and issues (pp.143-189). New Delhi, India: Oxford University Press.
4. D’cruz, P., & Bharat, S. (2001). Beyond joint and nuclear: The Indian family revisited. Journal of Comparative Family Studies, 32(2), 167-194.
5. Duck, S. (1998). Human relationships. ND: Sage.
6. Ganguly-Scrase, R. (2007). Victims and agents: Young people’s understanding of their social world in an urban neighbourhood in India. Young, 15, 321-341.
7. Gudykunst, W. B., & Toomey, S. T. (1998). Culture and interpersonal communication. ND: Sage.
8. Pestonjee, D. M. (1992). Stress and coping: The Indian experience. New Delhi: Sage

OR**ADVANCE MAJOR COURSE- AMJ 3C:** (Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75

Pass Marks: Th (SIE + ESE) = 30

Instruction to Question Setter for***Semester Internal Examination (SIE 10+5=15 marks):****There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.**The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)****End Semester Examination (ESE 60 marks):****There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer**Note: There may be subdivisions in each question asked in Theory Examinations.***C. TEXTILE DESIGN AND ILLUSTRATION****Theory: 60 Lectures****Course Description**

Design and development of textiles is the key to the fashion world. This course aims to develop innovative approaches to design by understanding the fundamentals of design. It emphasizes on building a variety of skills, in combination with theoretical knowledge and practical application. It also focuses on knowledge and techniques needed to produce fashion drawings along with the vocabulary of clothing styles and accessories. It will lead to the development of students' intellectual abilities, creativity, independence, critical self-awareness, imagination and skills that will enhance global employment opportunities on completion of the course

Learning Objectives:

1. Understand the principles and elements of design.
2. Apply the principles and elements of design in textiles and fashion design.
3. Explore and learn sketching and drawing techniques to represent styles and fabrics in fashion.
4. Learns basic traditional media methods to develop creative and customized fashion illustrations
5. Design apparels and accessories for men, women and children.

Learning Outcomes:

Successful completion of this course will enable students to

1. Define and apply the principles and elements of design in textiles and fashion design.
2. Design and create visual compositions in fashion illustration and explains fashion apparel construction when illustrating garments.
3. Analyze fabrics and their tactile/visual qualities to render them appropriately.
4. Apply basic traditional media methods to develop creative and customized fashion illustrations

Course Content**Unit-I. Understanding Design****(10 Lectures)**

Design-its meaning and importance,

Importance of good taste in design

Designer – Textile designer and Fashion designer

Challenges and opportunities for design and designers

Unit-II. Elements of Design and Its Co-Relation (12 Lectures)

Point, Line, Colour, Plane, Volume, Space, Shape, Form, light, Texture, pattern

Unit-III. Principles of Design and Its Co-Relation (12 Lectures)

Balance, Proportion and scale, Rhythm, Emphasis, Harmony, Contrast, Variety Law of area

Unit-IV. Line, Colour and Pattern in Design (14 Lectures)

Line and its expressiveness

Types and composition

Effect of lines to create rhythm and optical illusions Colour expression

Colour wheel and its dimension Colour mixing and colour system Colour harmony and colour scheme Colour in different media

Colour in fabric, texture and light Pattern

Surface pattern and pattern group Repeat pattern

Unit-V. Human Body Proportions and Illustrating Fashion (12 Lectures)

Balance and proportion in human body: average and fashion figures

Postures of male, female and children croquies and its significance: Front view, Back view, Side view and 3/4th view

Stylizing the croquie and its importance Understanding fabric textures and drapes

Recommended Readings:

1. Derrick, L. (2018) Fashion Sketchbook: Fashion Sketchbook with figure templates (Fashion Croquis), Create Space Independent Publishing Platform
2. Elaine, S. (2013) The Dynamics of Fashion. 4th Ed. New York: Bloomsbury publication.
3. Julia Y., & Donna G., (2011), the Fashion Careers Guidebook: A Guide to Every Career in the Fashion Industry and How to Get It, Barron's Educational Series.
4. Linda, T., (2010), Portfolio Presentation for Fashion Designers, 3rd Edition, Fairchild books, New York.
5. Mary, L.G., (2008), The Fairchild Encyclopedia of Menswear, Fairchild Publications, New York.
6. Michele W.B., Diane D., (2006), the Spec Manual, Fairchild Publications, New York.
7. Patrick, J. I. (2009) New Encyclopedia of Fashion Details: Over 1000 Fashion Details, London: B.T. Batsford.
8. Patrick, J. I. (1996) Fashion Design Illustration - men, London: B.T. Batsford.
9. Patrick, J. I. (2005) Fashion Design Illustration - men, London: B.T. Batsford
10. Patrick, J. I. (2003) Introduction to Fashion Design, London: B.T. Batsford
11. Sharon L. T. and Glazer, S.S. (2017), Illustrating Fashion, 4th Ed. New York: Fairchild Books. The Snap Fashion Sketch Book, Prentice Hall, New Jersey.
12. Stipelman, S. (2017) Illustrating Fashion, 4th Ed. New York: Fairchild Books.
13. Tate, S. L. & Glazer, B. (2007) The Snap Fashion Sketchbook, New Jersey: Prentice Hall.

HOME SCIENCE PRACTICAL- AMJ 3C LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lectures**

1. Introduction of flat sketches, garment features and accessories: types of silhouettes, skirts, trousers, necklines, collars, sleeves, coats and jackets, footwear, handbags.
2. Factors to be considered when designing for children, women and men- formal wear, casual wear, night wear, sportswear, ethnic wear, wedding wear
3. Drawing average and fashion figures: stick, block and flesh
4. Observation of people and live sketching in different postures
5. Converting photographic poses from magazines into fashion illustration
6. Exploring medias to create fabric textures
7. Rendering of fabric swatches and fabric drapes using different colour medias
8. Visit to fashion museum / virtual tour of a fashion museum.
9. Visiting designers' boutique / designer's website
10. Preparation of an album of garment features for designing of Apparels.
11. Preparation of an album of accessories suitable for different occasion.
12. Observation of people in different situations and live sketching of styles worn
13. Designing of apparel and accessories for men as per the given brief.
14. Designing of apparel and accessories for women as per the given brief.
15. Designing of apparel and accessories for children as per the given brief.
16. Portfolio development

Recommended Readings:

1. Derrick, L. (2018) Fashion Sketchbook: Fashion Sketchbook with figure templates (Fashion Croquis), Create Space Independent Publishing Platform
2. Elaine, S. (2013) The Dynamics of Fashion. 4th Ed. New York: Bloomsbury publication.
3. Linda, T., (2010), Portfolio Presentation for Fashion Designers, 3rd Edition, Fairchild books, New York.
4. Mary, L.G., (2008), The Fairchild Encyclopedia of Menswear, Fairchild Publications, New York.
5. Michele W.B., Diane D., (2006), the Spec Manual, Fairchild Publications, New York.
6. Patrick, J. I. (2009) New Encyclopedia of Fashion Details: Over 1000 Fashion Details, London: B.T. Batsford.
7. Patrick, J. I. (2005) Fashion Design Illustration - men, London: B.T. Batsford
8. Patrick, J. I. (2003) Introduction to Fashion Design, London: B.T. Batsford
9. Sharon L. T. and Glazer, S.S. (2017), Illustrating Fashion, 4th Ed. New York: Fairchild Books. The Snap Fashion Sketch Book, Prentice Hall, New Jersey.
10. Stipelman, S. (2017) Illustrating Fashion, 4th Ed. New York: Fairchild Books.
11. Tate, S. L. & Glazer, B. (2007) The Snap Fashion Sketchbook, New Jersey: Prentice Hall.

OR**ADVANCE MAJOR COURSE- AMJ 3D:** (Credits: Theory-04, Practicals-02)**Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75****Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):***

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer

Note: There may be subdivisions in each question asked in Theory Examinations.

D. DESIGNING AND FURNISHING LIFE SPACES**Theory: 60 Lectures****Course Description**

The Course introduces the concepts of life space, it's designing and furnishing as a unified/complete entity. Further the Course while disseminating knowledge on various styles, types and construction of furniture highlights their significance in furnishing the life space-the abode of rest, peace and comfort - for the inmates. Students get exposed to the triad contributing to one's life space-design and décor, furniture and furnishing.

Learning Objectives

1. Comprehend the concept of life space
2. Learn skills of designing life space
3. Gain knowledge on different styles in furniture
4. Understand the role of furnishings in designing and decorating interiors

Learning Outcomes

1. Understand the various features in period style furniture
2. Select and arrange furniture and furnishings in different rooms in residential spaces
3. Knowledge on factors influencing planning of life space
4. Develop confidence in decorating interiors using furniture and furnishings

Course Content**Unit I: Concept of Life Space****(12 Lectures)**

Objectives and process of planning life space-biological needs, ecological concerns, cultural influences, psychological effects, utility, economy, beauty and character

Factors determining life space in interiors- people, location and orientation, resource available, activity zones in life space, schematic diagram

Trend setting from spacious to compact interiors and multi-storeyed buildings

Unit II Furniture in the Life Space**(10 Lectures)**

Importance of furniture in relation to interiors, salient features of traditional, contemporary and modern styles in furniture

Furniture Types-Modular furniture and mobile furniture; Case goods and upholstered furniture; multi-purpose furniture

Materials used and construction of furniture-joints, finishes; Construction of upholstered furniture

Unit III Furniture Selection and Arrangement (10 Lectures)

Factors considered in selection of furniture to suit different spaces and purposes General guiding concepts in arrangement of furniture

Arrangement of furniture in different rooms

Trends in furniture – impact of materials and methods, Ergonomics, space saving, innovation

Care and maintenance of furniture

Unit IV Furnishings for Designing Life Space (14 Lectures)

Conceptual meaning and definition of design, elements and principles of design Supportive elements as functional and aesthetic aspects – role of colour and light in designing life space – Prang colour system and colour harmonies; sources and effect of lighting

Conceptual meaning of furnishings – definition and classification – soft, hard, resilient; selection and basic use in life space

Home furnishings as accessories, floor, wall and ceiling decorations, selection and use

Types of windows, window treatments –Hard (shutters, rollers, blinds, shades), Soft (curtains, draperies, swags, valances).

Window accessories: chords, rings, rods, trims, and decorative products.

Developing innovative designs for window treatments

Unit V Home Furnishings and Accessories (14 Lectures)

Goals involved in furnishing interiors

Factors influencing furnishing decisions: climatic conditions, needs and preferences, principles of design, availability etc

Selection of furnishings based on background – walls, floors and ceilings

Selection, care and maintenance of different home furnishings-slip covers, cushion covers, bed linen, bath linens, and kitchen linens.

Role of accessories as furnishing components - Functional and decorative – fabric-based lamps, painting, wall hangings and soft toys

Recommended Readings:

1. Arora. S. P., and Bindra S.P. (2005). Building Construction. Delhi: Dhanpat Rai Publications
2. Bhavikatti, S.S., and Chitawadagi, M.V. (2019). (1st Ed.). Building Planning and Drawing. Hubli: Dreamtech Press
3. Faulkner, R. and Faulkner, S. (1987). Inside Today's Home. New York: Rinehart Winston, India.
4. Gandotra V., Shukul M., and Jaiswal N. (2011). Introduction to Interior Design and Decoration, New Delhi: Dominant publishers, India.
5. Jankowsky, W. (2001). Modern Kitchen Work Book. New Delhi: Rockport Publishers, India.
6. Maureen, M. (2004). Interior Design Visual Presentation - A Guide to Graphics, Models and Presentation Techniques. New Jersey: John Wiley and Sons.
7. Mendelson, C. (2005). Home Comforts: The Art and Science of keeping house. New York; London: Scriber Company
8. Premavathy, S. (2005). Interior Design and Decoration, New Delhi: CBS Publishers and Distributors, India.
9. Dutt, D.R. (2010). How Best to Plan and Build Your Home: A Total Guide for the Owner. New Delhi: Pustak Mahal (ISBN-13: 978-8122307559)

10. Stepat, D.V. (1991). Introduction to Home Furnishings. New York, London. : The Macmillan Company
 11. Stuart. L. (2013). Furniture Design: An Introduction to Development, Materials and Manufacturing. London: Laurence King Publishing
 12. Tolpin, J. (2001). New Family Home - Creating the Perfect Home for Today and Tomorrow. New Delhi: Taunton Press
 13. Usha S. (2002). Designs for a Lifetime. Chennai: Honesty Publishers
 14. Gandotra. V., and Patel, S. (2006). House for Family Living. New Delhi: Dominant Publishers
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HOME SCIENCE PRACTICAL- AMJ 3D LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lectures**

1. Identifying different styles in furniture
2. Visit to a manufacturing unit of a furniture shop and observing the construction of case goods and upholstered furniture
3. Survey of consumers to find out the factors considered while selecting furniture
4. Listing furniture requirements for various activities carried out in a household
5. Arranging furniture for different rooms in a living space using cut outs
6. Collecting pictures of rugs and carpets used in interiors
7. Drawing different methods of treating windows and developing an innovative design for treating windows
8. Observing the advantages and disadvantages of living in multi-storied buildings and individual houses for life space satisfaction
9. Drawing Prang Colour chart
10. Applying different colour harmonies to an outline of three-dimensional interior and identifying its effects
11. Visits to few modern interiors (residential and commercial) to observe the selection and fixing of various lighting fixtures
12. Collecting pictures of various rooms interiors in residences and identifying the accessories and soft furnishings used in it
13. Demonstrations on different types and styles of flower arrangement
14. Workshop on construction of soft window treatments

Recommended Readings:

1. Bhavikatti, S.S., and Chitawadagi, M.V. (2019). (1st Ed.). Building Planning and Drawing. Hubli: Dreamtech Press
2. Faulkner, R. and Faulkner, S. (1987). Inside Today's Home. New York: Rinehart Winston, India.
3. Gandotra V., Shukul M., and Jaiswal N. (2011). Introduction to Interior Design and Decoration, New Delhi: Dominant publishers, India.
4. Jankowsky, W.(2001). Modern Kitchen Work Book. New Delhi: Rockport Publishers, India.
5. Maureen, M.(2004). Interior Design Visual Presentation - A Guide to Graphics, Models and Presentation Techniques. New Jersey: John Wiley and Sons.
6. Premavathy, S.(2005).Interior Design and Decoration, New Delhi: CBS Pub. and Distributors, India.
7. Dutt, D.R.(2010). How Best to Plan and Build Your Home: A Total Guide for the Owner.New Delhi: Pustak Mahal (ISBN-13: 978-8122307559)
8. Stepat, D.V. (1991). Introduction to Home Furnishings. New York, London. : The Macmillan Company
9. Usha S. (2002). Designs for a Lifetime. Chennai: Honesty Publishers
10. Gandotra. V., and Patel, S. (2006). House for Family Living. New Delhi: Dominant Publishers

OR**ADVANCE MAJOR COURSE- AMJ 3E:**

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75**Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):***

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer

Note: There may be subdivisions in each question asked in Theory Examinations.

E. COMMUNICATION FOR DEVELOPMENT**Theory: 60 Lectures****Course Discipline**

Course in Communication for Development orients the students to learn about the various dimensions of development and communication for social change. The course focuses contemporary development concerns, advocacy and communication for sustainable social change. It enhances the capacity of the students in participatory methodologies and innovative communication techniques.

Learning Objectives

1. Understand the concept and process of development
2. Gain knowledge on development communication
3. Learn the importance media in development communication
4. Acquire skills on Information Education and Communication (IEC) technologies and media

Learning Outcomes

1. Understand the concept related to communication for development
2. Comprehend the significant development communication
3. Focus on different types of media and its uses in the implementation of programme
4. Analyse the ICT in development communication
5. Understand the steps in message design

Course Content**Unit-I. Development Communication****(12 Lectures)**

Definition, basic concept, nature, significance and functions and dysfunctions, dynamics of development.

Models of Development- Dominant paradigm, Basic Needs model, new paradigm of development.

Philosophy of and principles of development communication. Methods of Communication.

Unit-II. Approaches to Development Communication**(12 Lectures)**

Meaning, nature, role and characteristics of development communication Interrelationship between development and development communication

Diffusion / extension approach, Mass media approach, development support communication approach, institution approach, integrated approach and localized approach
Paradigm of development communication

Unit-III. Media and Development Communication (12 Lectures)

Traditional media – types, characteristic role in development communication
Development reporting – roles and responsibilities of development reporter, ethics in reporting, required skills and issues in development reporting
News reporting – definition of news, ingredients and qualities of news, news value, types of news reports, structure of news reports
Radio news, features and commentaries, radio and development communication Television and cinema – role in development communication
ICTS – scope in development communication

Unit-IV. Skills for Development Communication (12 Lectures)

Photography -basic principles, preplanning, scripting, shooting, developing, mounting, recording of commentary or dialogue, synchronization of frame with recording
Video films – essential preliminaries, preplanning – procedure, classification of video programmes, shooting script
Editing procedure – optical effects, music titles and other accessories to be added Recording process, Home videos, radio recording

Unit-V. Social marketing and advertising (12 Lectures)

Social marketing – concept of social marketing Innovative strategies in Social Marketing
Advertising – definition, types, origin and role Types of advertisement and their impacts
Media for advertising
Media planning and advertising

Recommended Reading

1. Capila. A. (2001). Images of Women in the Folk Songs of Garhwal Himalayass. New Delhi: Concept Publishers
 2. Communication for Development in the Third World Theory and Practices (1991). New Delhi: Sage Publications
 3. Dhanraj patil. (2010). Communication for rural development in India. New Delhi: Serials Publications
 4. Gupta. D. (2007). Development Communication in Rural Sector. New Delhi: Mukhopadhyay, Abhijeet Publication
 5. Joshi Uma. (1997). Textbook of Mass Communication and Media. New Delhi: Anmol Publications
 6. Joshi Uma. (2001). Understanding Development Communication. New Delhi: Domincent Publishers
 7. Karun Shetty. (2011). Communication for Social Change. New Delhi: Pacific publication
 8. Nisha, M. (2006). Understanding Extension Education. New Delhi: Kalpay Publications
 9. Reddy, A.A. (2001). Extension Education. Bapatla: Sri Lakshmi Press
 10. Singh, U.K., and Nayak A.K. (2007). Extension Education. New Delhi: Common Wealth Publishers
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HOME SCIENCE PRACTICAL- AMJ 3E LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lectures**

1. Analyse the models and its application in the implementation of programmes
2. Apply the traditional media and understand the effectiveness of the same in women's issues
3. Identify various issues in development communication through radio scripts, newspaper stories and reports
4. Carryout cases studies on successful implementation of communication programmes by using communication skill
5. Interact with media in organizing programmes on current issues
6. Apply the approaches of social advertising to create awareness on important issues related to women

Recommended Readings:

1. Capila.A. (2001). Images of Women in the Folk Songs of Garhwal Himalayass. New Delhi: Concept Publishers
 2. Dhanraj patil. (2010). Communication for rural development in India. New Delhi: Serials Publications
 3. Gupta. D. (2007). Development Communication in Rural Sector. New Delhi: Mukhopadhyay, Abhijeet Publication
 4. Joshi Uma. (1997). Textbook of Mass Communication and Media. New Delhi: Anmol Publications
 5. Joshi Uma. (2001). Understanding Development Communication. New Delhi: Domincent Publishers
 6. Karun Shetty. (2011). Communication for Social Change. New Delhi: Pacific publication
 7. Reddy, A.A. (2001). Extension Education. Bapatla: Sri Lakshmi Press
 8. Singh, U.K., and Nayak A.K. (2007). Extension Education. New Delhi: Common Wealth Publishers
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II. ADVANCE MAJOR COURSE- AMJ 4A: (Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75

Pass Marks: Th (SIE + ESE) = 30

Instruction to Question Setter for***Semester Internal Examination (SIE 10+5=15 marks):***

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

A. PUBLIC HEALTH NUTRITION**Theory: 60 Lectures****Course description**

The focus of this course is to examine the role of the dietician/nutritionist in identifying health and nutrition problems and integrating nutritional services with medical and social services within the community. This course will also provide basic knowledge and skills relevant to the practice of community nutrition, the concept of community, the role of nutrition in health promotion and perspectives for resolving community nutrition problems, Needs for assessment issues and national and state community nutrition programs, determinants of health outcomes, measurement of nutrition and health status, food and nutrition policy, legislative issues and management of community programs.

Learning objectives:

1. To know the basics of public health nutrition
2. To understand the need of prioritizing nutrition issues
3. To assess the nutritional and Health Status of an individual and the community.
4. To learn nutritional programmes and policies to overcome malnutrition
5. To understand various national and International nutritional organizations for combating malnutrition
6. To apply ICT in the formulation of community nutrition education programme

Learning outcomes:

1. Finally, the concepts and knowledge required for the delivery of community nutrition services will be applied to program planning, intervention and program evaluation
2. Gaining knowledge on nutritional programmes and policies overcoming malnutrition
3. Understanding the national, international and voluntary nutritional organizations to combat malnutrition
4. Able to organize community nutrition education programme with the application of computers.
5. Apply immunological intervention programmes to overcome epidemic of communicable diseases.

Course Content**Unit-I. Introduction to Public Health Nutrition and National Development (12 Lectures)**

Meaning and Scope of Public Health Nutrition

Roles and responsibilities of public health nutritionists

Definitions of optimum health, malnutrition (under nutrition, overweight, obesity, micronutrient deficiency), nutritional status, nutrition intervention, food and nutrient supplements, , nutrition education, morbidity, mortality rates

Nutrition – A Global Developmental Priority Importance of nutrition throughout the life cycle, dual burden of malnutrition
 Sustainable Development Goals (SDGs), 12 of the 17 Goals require good nutrition to be met
 Ecology Consequences and of Malnutrition,
 Strategies to Overcome Malnutrition Relation of nutrition to national development Nutrition and food security

Unit-II. Nutritional Assessment

(12 Lectures)

Introduction, Definition of Nutritional Status, Instruments, Standard of Reference, Age Assessment, Measurement Techniques, Weight, Linear Measurement/Height, Circumferences, Soft Tissue Subcutaneous Fat, Objective and Classification of nutritional assessment Methods
 Overview of nutritional status assessment methods:

Direct Nutritional Assessment parameters - (anthropometry, clinical signs and symptoms, dietary assessment and biochemical parameters); ecological parameters – environment, Food prices, and indirect parameters – SES, Mortality and Morbidity rates

Anthropometric measurements

Techniques commonly used in public health (weight for age, weight for height, height for age & BMI for age), Comparison of indices with references

The new WHO growth standards, its use and implications and classification to define mild, moderate & severe forms of malnutrition

New WHO growth standards for Adolescents, implications of introducing new standards in school health program)

Biochemical Estimation

Name of assessment of parameters, Reference value/Desirable Level of nutrients and their metabolites in body tissues

Lipids & Lipoproteins (TG, LDL and HDL cholesterol and their ratios)

Carbohydrates (blood and urinary glucose)

Protein (serum protein, albumin, NEAA/EAA ratio, hydroxyproline index, urea/creatinine ratio, etc.)

Iron (Hb, HcT, serum iron, transferrin, ferritin)

Vitamin A (serum retinol, carotene)

Vitamin D (serum alkaline phosphatase, calcium and phosphorous)

B-complex vitamins, including Folic acid & Vitamin B12 (urinary excretion)

Vitamin C (serum ascorbic acid, whole blood ascorbic acid)

Iodine (T3, T4, urinary excretion)

Sodium, potassium and chloride

Fluoride

TB Test, HIV Test CD4 counts

Clinical Examination of common nutritional deficiencies

Specific nutrient Deficiency signs & symptoms (Vitamin A, Iron, Iodine, Zinc U, B complex vitamins etc.)

Grouping of Signs

Dietary Survey and Types of Nutritional Survey

Dietary intakes methods and understanding their usage and limitations in different field situations: 24-hour diet recall methods; Food frequency method; Weighed food inventory; food diaries and food composition methods

Rapid assessment methods for dietary intake

Dietary Diversity Score for Household, Individual, women and children

Indirect Nutritional Assessment parameters

Vital Statistics, Age Specific Mortality Rate, Morbidity and Cause of Specific Mortality.

Unit-III. Social & Behavior Change Communication (12 Lectures)

Concepts, components and process of communication for nutrition health promotion

Definitions of Formal – non-formal communication, Participatory communication

Components of BCC (Sender, Message, Channel, Receiver)

Various types of communication – interpersonal, mass media, visual, verbal/ non-verbal.

need of SBCC in India

Social ecological model and communication for development (C4D) approach

Concepts and Theories of Social and Behavior Change Communication (12 Lectures)

Definitions, Three characteristics, Ten overarching principles for developing SBCC program or campaign

Steps for developing a successful Social and Behavior change communication program

Evaluating and re-planning

Training workers in nutrition education programmes

Methods of education when to teach, whom to teach

Use of computers to impart nutrition education

Organization of Nutrition education programmes

Unit –IV. National, International and Voluntary Organizations to Combat Malnutrition

Role of Nutrition in Achieving Global Targets (12 Lectures)

Optimal Infant and Young Child Feeding: Significance of the first 1000 days of life

Improving maternal, infant and young child nutrition – WHO Global Targets 2025

Nutrition Intervention programmes in India –

Integrated Child Development Services (ICDS): ICDS Mission Mode, ICDS mission in various states

Role of AWW; Supplementary Nutrition, Bal bhog, Sakhibhog, Shishubhog

Mid-Day Meal (MDM) program

Fortification program

National Programs to Combat Micronutrient Malnutrition

Iron: National Nutritional Anemia Control Program, Nutritional Program for Control of Anemia among Adolescent Girls, National Iron Plus Initiative (NIPI)

Vitamin A: Vitamin A Prophylaxis Program (VAPP)

Iodine: National Iodine Deficiency Disorders Control Program (NIDDCP), Universal Salt Iodization (USI), Double Fortified Salt (DFS)

Diarrhea Control Program: Role of Zinc, ORS and National Deworming Campaign

Fluorosis Control Program

Organizations Working towards Meeting Global Nutrition Targets

National organization – ICAR, ICMR, CSWB, SSWB, NNMB, NIN, CFTRI, DFRL, NIPCCD and NFI, Save the Children, Tata Trusts

International Organizations - World Bank, World Health Organization (WHO), United Nations International Children's Emergency Fund (UNICEF), World Food Programme (WFP), Bill and Melinda Gates Foundation

Voluntary organizations – Global Alliance for Improved Nutrition(GAIN) Micronutrient Initiatives, CARE, CRS, AFPRO, IDA; World Alliance for Breastfeeding Action (WABA)

Unit-V. Epidemiology of Communicable Diseases**(12 Lectures)**

Definition, causes, signs and symptoms, treatment and prevention of communicable diseases, Respiratory infections and intestinal infections,

Other infections- dengue, Flu

Types of immunity- active, passive and herd-group protection

Immunization agents- vaccines, immunoglobulin

Immunization schedules - National and WHO Expanded Programme on Immunization- Universal Passive, Combined, Chemoprophylaxis, non-specific measures

Recommended Readings:

1. Park A. (2007), Park's Textbook of Preventive and Social Medicine XIX Edition M/S Banarasidas, Bharat Publishers, 1167, Prem Nagar, Jabalpur, 428 001(India)
 2. Bamji M.S, Prahlad Rao N, Reddy V (2004). Textbook of Human Nutrition II Edition, Oxford and PBH Publishing Co. Pvt. Ltd , New Delhi
 3. Bhatt D.P (2008), Health Education, Khel Sahitya Kendra, New Delhi
 4. Gibney MJ, Margetts BM, Kearney JM, Arab L (2004) Public Health Nutrition Blackwell Publishing Co. UK
 5. Swaminathan M (2007), Essentials of Food and Nutrition. An Advanced Textbook Vol.I, The Bangalore Printing and Publishing Co. Ltd, Bangalore
 6. UNICEF. <https://www.unicef.org/>
 7. WHO.<http://www.who.int/>
 8. National Guidelines on Infant and Young Child Feeding. wcd.nic.in
 9. WHO Non-communicable diseases and risk factors. <http://www.who.int/ncds/en/>
 10. National Nutrition Mission – ICDS. icds-wcd.nic.in
 11. Ministry of Health & Family Welfare, www.mohfw.nic.in
 12. Field guide to designing communication strategy, WHO publication-2007
 13. Communication for Development (C4D) Capability Development Framework, UNICEF and 3D Change, 2009
 14. Health education: theoretical concepts, effective strategies and core competencies: a foundation document to guide capacity development of health educators/World Health Organization. Regional Office for the Eastern Mediterranean, 2012
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HOME SCIENCE PRACTICAL- AMJ 4A LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lectures**

1. Assessing the nutritional status of an individual, group and community in different settings
2. Conducting 3 Day Weighment Survey for an Individual
3. Planning and conducting nutrition education programmes in a selected village for 3 days
4. Spot observations based on the observations through field visits in ICDS centres, MDM school programme

Recommended Readings:

1. Park A. (2007), Park's Textbook of Preventive and Social Medicine XIX Edition M/S Banarasidas, Bharat Publishers, 1167, Prem Nagar, Jabalpur, 428 001(India)
 2. Bamji M.S, Prahlad Rao N, Reddy V (2004). Textbook of Human Nutrition II Edition, Oxford and PBH Publishing Co. Pvt. Ltd , New Delhi
 3. Gibney MJ, Margetts BM, Kearney JM, Arab L (2004) Public Health Nutrition Blackwell Publishing Co. UK
 4. Swaminathan M (2007), Essentials of Food and Nutrition. An Advanced Textbook Vol.I, The Bangalore Printing and Publishing Co. Ltd, Bangalore
 5. WHO Non-communicable diseases and risk factors. <http://www.who.int/ncds/en/>
 6. National Nutrition Mission – ICDS. icds-wcd.nic.in
 7. Ministry of Health & Family Welfare, www.mohfw.nic.in
 8. Health education: theoretical concepts, effective strategies and core competencies: a foundation document to guide capacity development of health educators/World Health Organization. Regional Office for the Eastern Mediterranean, 2012
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OR**ADVANCE MAJOR COURSE- AMJ 4B:**

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75**Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):***

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer

Note: There may be subdivisions in each question asked in Theory Examinations.

B. GENDER, SOCIETY AND HUMAN DEVELOPMENT**Theory: 60 Lectures****Course Description**

The course introduces students to gender and related concepts, and enables an understanding of gender as a socially constructed concept. It explores critical questions about the meaning and implications of gender in society, and acquaints students with key issues, debates, and questions pertaining to gender.

Learning Objectives

1. Critically understand the situation of women and men in Indian society from multiple perspectives.
2. Learn about the concepts of gender, patriarchy, equality, equity, and feminism as well as the intersection of social class and caste to determine the status of women.
3. Recognize how social institutions are patriarchal.
4. Develop sensitivity regarding the socio-cultural, economic and political factors that shape life experiences in relation to gender
5. Learn about women's human rights and laws related to women in India.
6. Learn about different gender identities and sexual orientations- masculinities, LGBTQIA in the Indian context

Learning Outcomes

1. Describe basic concepts of gender and relevance of gender studies as an academic discipline.
2. Describe theories and concepts of gender and development.
3. Analyse human rights in terms of gender equality and gender equity.
4. Critically analyse existing laws and the legal system through a gender lens.
5. Analyse how gender is constructed in different types of media.

Course Content**Unit-I Gender: A Social Construction****(12 Lectures)**

Differences between sex and gender – biological determinism Key gender concepts and definitions

Gender socialization in family and society

Patriarchal institutions and key areas of patriarchal control Caste, class and gender intersectionality in India

Gender identities and sexual orientations (femininity, masculinity, LGBTQIA)

Status of women – historical and contemporary perspectives
Introduction to women's studies/ gender studies as a discipline

Unit-II Gender and Development: Approaches and Strategies (12 Lectures)

Concept of gender and development – indicators of human and gender development – equality and equity
Orientation to theories of women, gender and development (WID, WAD and GAD) Human Development Index (HDI), Gender Development Index (GDI), Gender Inequality Index (GII), and Gender Empowerment Measure
Gender budgeting and gender auditing
Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs)

Unit-III Gender, Rights and Laws (12 Lectures)

Girls, women, and human rights UDHR, UN-CEDAW and UN-CRC
Constitutional provisions accorded to women
Legal aspects related to women: PCPNDT Act, PWDVA, Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) act, Indecent Representation of Women (Prohibition) Act, The Dowry Prohibition Act.
Overview of laws related to marriage, divorce and property inheritance. The Women's Reservation Bill

Unit-IV Role of Media in Social Construction of Gender (12 Lectures)

Social construction of gender reality by contemporary media
Media and perpetuation of gender stereotypes: rhetoric of the image, narrative Mainstream media and gender
Representation of women in media in political, cultural and social landscape
Researching and analyzing media from a gender perspective: in broadcast, print, new media.
Gender and media ethics
Gender and ICTs

Unit -V Gender, Health and Empowerment (12 Lectures)

Gender discrimination and under nutrition
Epidemiology of menstruation and menstrual disorder, health indicators and gender gap
Socioeconomic inequality and women's health
Biological and psychological determinants of women's health (all in brief)
Gender inequality in labor market: segmented labor market and occupational segregation
Gendered jobs and social inequality
Sex segregation at work place (in brief)

Recommended Readings:

1. Ambedkar, B.R. (1917). Caste in India: Their mechanism, genesis and development. New Delhi: Critical Quest.
2. Bhasin, K. (1993). What is patriarchy? New Delhi: Kali for Women.
3. Bhasin, K. (2003). Exploring masculinity. New Delhi: Women Unlimited.
4. Bhasin, K. (2000). Understanding gender. New Delhi. Kaali for Women.
5. Chakravarti, U. (2018). Gendering caste: Through a feminist lens. New Delhi: Sage.
6. Chatterjee, P. (2002). Community, gender and violence. Delhi: Permanent Black.
7. Das, B. (2009). Gender issues in development. Jaipur: Rawat Publications.
8. Goel, A, Kaur, A and Sultana, A. (2006). Violence against women: Issues and perspectives. New Delhi:

Deep& Deep Publishers.

9. Jain, J., & Rai, S. (Eds.). (2002). Films and feminism: Essays in Indian cinema. Jaipur: Rawat Publications.
 10. Dasgupta, S., Sinha, D., & Chakravarti, S. (2011). Media, gender, and popular culture in India: Tracking change and continuity. New Delhi: Sage Publishing India.
 11. Kannabiran, K. (Ed.). (2013). Women and law: Critical feminist perspectives. New Delhi: Sage.
 12. Kumar, S. (2019). LGBT Community in India: A study. New Delhi: Educreation Publishing
 13. National Law School. Vols. I to IV Gender, human rights and the law.
 14. Thomas, S. E. (2019). Gender, human rights and law. Volume - 6
 15. Bangalore: Centre for Women and the Law, National Law School of India University
 16. Websites of Government of India and National Commission for Women for Laws and Constitutional provisions accorded to women
 - a. <http://ncw.nic.in/important-links/List-of-Laws-Related-to-Women>
 - b. https://www.india.gov.in/sites/upload_files/npi/files/coi_part_full.pdf
 17. Websites of United Nations and UNDP, OHCHR to get the details of UDHR, UN CEDAW, UNCRC, MDGs and SDGs.
 - a. <https://www.un.org/en/universal-declaration-human-rights/>
 - b. <https://www.un.org/womenwatch/daw/cedaw/text/econvention.htm>
 - c. <https://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx>
 - d. <https://www.undp.org/content/undp/en/home/sustainable-development-goals.html>
 - e. https://www.undp.org/content/undp/en/home/sdgoverview/mdg_goals.html
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HOME SCIENCE PRACTICAL- AMJ 4B LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lectures**

1. Analysis of gender differentials using development indicators
2. Gender based analysis of media with special reference to portrayal of women
3. Case studies for programs and campaign for women's development.
4. Analyze the achievements of MDGs
5. Analyze the progress of SDGs
6. Critically engage with Laws and Acts for Women in India
7. Observe the representation of masculinity in Indian movies
8. Submit report after visiting local Women's organization and LGBTQAI organizations

Recommended Readings:

1. Bhasin, K. (2000). Understanding gender. New Delhi. Kaali for Women.
2. Chakravarti, U. (2018). Gendering caste: Through a feminist lens. New Delhi: Sage.
3. Chatterjee, P. (2002). Community, gender and violence. Delhi: Permanent Black.
4. Das, B. (2009). Gender issues in development. Jaipur: Rawat Publications.
5. Goel, A, Kaur, A and Sultana, A. (2006). Violence against women: Issues and perspectives. New Delhi: Deep& Deep Publishers.
6. Jain, J., & Rai, S. (Eds.). (2002). Films and feminism: Essays in Indian cinema. Jaipur: Rawat Publications.
7. Dasgupta, S., Sinha, D., & Chakravarti, S. (2011). Media, gender, and popular culture in India: Tracking change and continuity. New Delhi: Sage Publishing India.
8. Kannabiran, K. (Ed.). (2013). Women and law: Critical feminist perspectives. New Delhi: Sage.
9. Kumar, S. (2019). LGBT Community in India: A study. New Delhi: Educreation Publishing
10. Thomas, S. E. (2019). Gender, human rights and law. Volume - 6
 - a. <http://nsw.nic.in/important-links/List-of-Laws-Related-to-Women>
 - b. https://www.india.gov.in/sites/upload_files/npi/files/coi_part_full.pdf
11. Websites of United Nations and UNDP, OHCHR to get the details of UDHR, UN CEDAW, UNCRC, MDGs and SDGs.

OR**ADVANCE MAJOR COURSE- AMJ 4C:**

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75**Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):***

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer

Note: There may be subdivisions in each question asked in Theory Examinations.

C. DYEING, PRINTING AND FINISHING OF TEXTILES**Theory: 60 Lectures****Course Description**

After the manufacturing of textiles, value addition is required. Dyeing printing and finishing of the textiles are the prime methods of value addition to the textiles. This course deals with the basics of the Dyeing, printing and finishing along with the influence of chemicals and auxiliaries on the end products. It further describes different types of dyeing, printing and finishing and explains the procedure of doing it on different fabrics to obtain required results This will help in using reasonably priced dyes and dyeing procedure and operating according to ecological requirements and carrying out in the shortest possible time.

Learning Objectives:

1. Introduce basics of dyeing, printing and finishing
2. Inculcate the knowledge of auxiliaries and chemicals used for dyeing and printing
3. Enhance the understanding of the relation between the dyes, pigments and fabrics.
4. Acquaint students with the importance of finishing of textiles
5. Develop the skills in doing dyeing and printing of textiles
6. Reproducing the required shade from batch to batch.

Learning Outcomes:

Successful completion of this course will enable students to

1. Describe the basics of dyeing, printing and finishing.
2. Examine the knowledge of auxiliaries and chemicals used for dyeing and printing
3. Explain the relation between the dyes, pigments and fabrics.
4. Recommend the finishing for textiles
5. Dye and print textiles.
6. Reproduce the required shade from batch to batch.

Course content**Unit-I. Introduction of Dyeing and Printing****(12 Lectures)**

History of dyeing and printing

Terms related to colour- Dye, pigment, light, hue, value, intensity

Colour wheel and schemes

Digital colour models: CMYK. RGB

Colour matching system
Directional and non-directional printing
Motifs types: Geometric, floral and novelty

Unit-II. Basics of Dyeing and Printing (12 Lectures)

Classification of dyes Classification of Printing
Difference between dyes and pigments
Preparation of fabrics before dyeing and printing designing, scouring, bleaching, mercerization, carbonization Heat setting: processing method

Unit-III. Dyeing (12 Lectures)

Classification of dyes
Auxiliaries and machineries used for dyeing Methods for dyeing
Factors affecting dyeing, dyeing of cotton, wool and silk Dyeing of viscose and polyester
Natural dyeing methods and limitations After treatments

Unit-IV. Printing (12 Lectures)

Preparation of print paste and printing table Pigments and dyes used
Direct style of printing Resist style of printing Discharge style of printing Novel techniques of printing
Fixation and after treatment processes Dyes for digital textile printing

Unit-V. Finishes (12 Lectures)

Classification: Physical, Chemical and Functional Objectives of textile finishing
Factors affecting the finishing of textiles: fibre, weave, physical properties, end use, susceptibility to chemical modification
Finishes for achieving different texture Finishes for enhancing specific characteristics

Recommended Readings:

1. Chavan, R.B. (1979). Textile Printing (Book of Papers) Department of Textile Technology, IIT New Delhi.
 2. Giles, G.H. (1974) Laboratory Course in Dyeing Hart & Clough; Bradford; England Kale
 3. D.G. (1976) Principles of Cotton Printing. Maharaja Brothers Ahmedabad.
 4. Saraiya, N.S. & Gupta P.C. Technology and Management of Printing.
 5. Shenai, V.A. (1979). Chemistry of Dyes and Principles of Dyeing. Sevak Publications Mumbai
 6. Trotman E.R. (1975). Dyeing and Chemical Technology of Textile Fibre. Charles Griffin & Co. Ltd., London
 7. Wynne Andrea (1997). Textiles. The Motivate Series Mcmillain Education Ltd., London.
 8. Vilensky L.D. & Gohil E.P. G. (1987) Textile Science, An explanation of fiber properties. CBS Publishers & Distribution, Delhi.
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HOME SCIENCE PRACTICAL- AMJ 4C LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lectures**

1. Preparation of fabric for dyeing and printing
 - a. Scouring, desizing, bleaching
2. Dyeing: Dyeing of yarn and fabric with different classes of dyes by varying the temperatures, %shade and M: L ratio.
 - a. Dyeing of cotton yarn and fabric with direct dyes, vat and reactive dyes.
 - b. Dyeing of silk, wool and nylon yarn and fabrics with basic and acid dyes.
 - c. Dyeing of polyester yarn and fabric with disperse dyes.
3. Making designs for
 - a. Blocks, stencil and screen
4. Preparation of
 - a. Blocks, stencil and screen
5. Printing of fabrics using:
 - i. Direct style - block, stencil and screen
 - ii. Resist style - Tie & Dye, Batik
6. Application of starch by varying concentration and material
 - a. Natural starch
 - b. Synthetic starch
7. Printing on garments by different styles
8. Product development

Recommended Readings:

1. Chavan, R.B. (1979). Textile Printing (Book of Papers) Department of Textile Technology, IIT New Delhi.
2. Giles, G.H. (1974) Laboratory Course in Dyeing Hart & Clough; Bradford; England Kale
3. D.G. (1976) Principles of Cotton Printing. Maharaja Brothers Ahmedabad.
4. Saraiya, N.S. & Gupta P.C. Technology and Management of Printing.
5. Shenai, V.A. (1979). Chemistry of Dyes and Principles of Dyeing. Sevak Publications Mumbai
6. Trotman E.R. (1975). Dyeing and Chemical Technology of Textile Fibre. Charles Griffin & Co. Ltd., London
7. Wynne Andrea (1997). Textiles. The Motivate Series Mcmillain Education Ltd., London.
8. Vilensky L.D. & Gohil E.P. G. (1987) Textile Science, An explanation of fiber properties. CBS Publishers & Distribution, Delhi.

OR**ADVANCE MAJOR COURSE- AMJ 4D:** (Credits: Theory-04, Practicals-02)**Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75****Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):******There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.******The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)******End Semester Examination (ESE 60 marks):******There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer******Note: There may be subdivisions in each question asked in Theory Examinations.*****D. CREATIVE APPLIED ARTS****Theory: 60 Lectures****Course Description**

Introducing students to the discipline of Applied Arts is a dire need to divert young minds from too much of academics to lighter enjoyable exercises. It would prove an attempt to initiate in them an opportunity to develop and kindle their senses in fine and applied arts, a viable avenue for lifelong learning.

Learning Objectives

1. Appreciate aesthetics of arts and crafts
2. Develop and practice nuances of creative arts
3. Inculcate skills through hands – on experience in applied arts
4. Understand and appreciate major work of artists.

Learning Outcomes

1. Comprehend significance of art concepts as an integral component of man's living styles from bygone days
2. Customize/ optimize use of visual and applied arts, accessories and antiques for designing interiors and other aspects
3. Realize learning as an enjoyable stress-free experience resulting in lifelong learning
4. Expand knowledge and equip skills and emerge as self-employed freelancers

Course Content**Unit I Introduction to Visual Art****(12 Lectures)**

Meaning and philosophy of art; categories of art related to interior design and architecture:
visual, plastic, decorative, applied arts
 Type of arts and designs - Visual art and graphic art; visual design and graphic design Drawing using different methods and techniques

Unit II Materials Used in Works of Art**(12 Lectures)**

Materials and their use in applied arts – wood, earthenware, ceramics, glass, plastics and metals
 Availability, processing and use
 Ornamentation and fine tuning techniques

Unit III Introduction to Art Forms**(12 Lectures)**

Concept of design; ABC of basics of design – Aesthetics, Basic design and Creativity: their significance in design development

Varieties of art: Art, abstract and surreal

Two dimensional art forms: Graphics: Meaning, types – hand process and mechanical process- relief, intaglio, planography

Three dimensional art forms: Sculpture: meaning, types – relief, free standing, Process in sculpture – subtractive, additive and replacement

Unit IV Applied Arts for Functional/ Aesthetic Use**(12 Lectures)**

Painting – water, oil, pot, Madhubani, Worli, Fresco

Pottery

Puppetry

Table setting

Jewelry making

3D printing

Floor and wall decorations – kolam, alpana, flower carpets, rangoli

Unit V Study of Major Work of Artists**(12 Lectures)**

Foreign artists – Michelangelo, Leonardo da Vinci, Raphael Sanzio, Pablo Picasso, Vincent van Gogh

Indian artists – Raja Ravi Varma, R.K. Laxman, M.F. Husain

Recommended Reading

1. Antonelli, P. (2005). *Humble Masterpieces: Everyday Marvels of Design*. London: Harper Design
2. Asher, F.M. (2003). *Art of India – Prehistory to the Present*. Encyclopedia Britannica Inc.
3. Campbell, G. (2006). *The Grove Encyclopedia of Decorative Arts*. New York: Oxford University Press
4. Chaudhari, S.N. (2005). *Interior Design*. Jaipur: Aavishkar Publishers,.
5. Faulkner, R. (1956). *Art Today – An Introduction to the Fine and Functional Arts*. New Delhi: Rinehart and Winston
6. Faulkner, R., and Faulkner, S. (1986). *Inside Today's Home*. New York: Rinehart
7. Frank, I. (2000). *The Theory of Decorative Art: An Anthology of European and American Writings. 1750–1940*. New Haven: Yale University Press
8. Geoffroy, A and Migdal, M. (2011). *World Famous Caricatures Collection & Drawing Techniques*. Mad Artist Publishing
9. Kasu, A.A. (2005). *Interior Design*. Delhi: Ashish Book Centre
10. Krause, J. (2004). *Design Basics Index*. Barnes & Noble. HOW Books
11. Malhotra, S., and Malhotra, R. (2001). *Drawing Techniques. An Artist's Hand Book on Drawing and Printing*. New Delhi: Sachdwa Publications.
12. Malhotra, S., and Malhotra, R. (2001). *Fine Arts Drawing*. New Delhi: Sachdwa Publications.
13. Meggs, P. B. (1983). *A history of Graphic Design*. New York: Van Nostrand Reinhold
14. Oei, L., and Kegel, D. E. (2002). *The Elements of Design: Rediscovering Colors, Textures, Forms, and Shapes*. London: Thames and Hudson
15. Pile, J. (2003) *Interior Design (3rd Ed.)* New Jersey: USA: Pearson
16. Piotrowski, C. (2004). *Becoming an Interior Designer*. New Jersey, USA: John Wiley & Sons
17. Seymour, P. (2003). *The Artist's Hand Book – A Complete Professional Guide to Materials and Techniques*. London: Arcturus Publishing limited.

HOME SCIENCE PRACTICAL- AMJ 4D LAB:

Marks : Pr (ESE: 3Hrs) =25

Pass Marks: Pr (ESE) = 10

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICALS:**60 Lectures**

1. Template and model making, Making paper bags, lamp shades and other accessories
2. Developing designs for greeting cards, wall hangers, jewelry and dress making
3. Wealth from waste product making
4. 2 d art forms – Collage, decoupage, stencil, puppetry
5. Painting - Worli and Madhubani
6. Floor decorations – Kolam, Alpana, Rangoli, flower carpet, floating rangoli
7. Accessories – Macreme, pottery, soft toys, terrarium, Paper Mache and real time (working) fountains
8. Table setting; fruit and vegetable carving
9. Collection and display of antiques and posters
10. Collection and analysis of paintings/ work of art of famous artists
11. Field visits to museums, art gallery
12. Lecture cum demonstration of graphic and visual art by experts
13. Visit to commercial units making pottery, jewelry, furniture etc
14. Submission of a complete record on practical work and portfolio on specified topics

Recommended Reading

1. Asher, F.M. (2003). Art of India – Prehistory to the Present. Encyclopedia Britannica Inc.
2. Chaudhari, S.N. (2005). Interior Design. Jaipur: Aavishkar Publishers,.
3. Faulkner, R. (1956). Art Today – An Introduction to the Fine and Functional Arts. New Delhi: Rinehart and Winston
4. Frank, I. (2000). The Theory of Decorative Art: An Anthology of European and American Writings. 1750–1940. New Haven: Yale University Press
5. Kasu, A.A. (2005). Interior Design. Delhi: Ashish Book Centre
6. Malhotra, S., and Malhotra, R. (2001). Drawing Techniques. An Artist's Hand Book on Drawing and Printing. New Delhi: Sachdwa Publications.
7. Malhotra, S., and Malhotra, R. (2001). Fine Arts Drawing. New Delhi: Sachdwa Publications.
8. Piotrowski, C. (2004). Becoming an Interior Designer. New Jersey, USA: John Wiley & Sons

OR**ADVANCE MAJOR COURSE- AMJ 4E:** (Credits: Theory-04, Practicals-02)**Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75****Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):******There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.******The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)******End Semester Examination (ESE 60 marks):******There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer******Note: There may be subdivisions in each question asked in Theory Examinations.*****E. COMMUNITY DEVELOPMENT****Theory: 60 Lectures****Course Description**

Community development refers to the broad set of skills and institutions that local communities utilize in an effort to improve the quality of life for all residents. This Course examines the history of housing, economic trends and social policies that have affected the marginalized communities across the country and project the organizing and capacity building measures that community development professionals and activists have sought to improve these conditions.

Learning Objectives

1. Understand the conceptual meaning of community development and community organization
2. Become aware of community development approaches
3. Study community organization modalities in various settings
4. Learn to evaluate of community development programmes

Learning Outcomes

1. Distinguish community development from community organization
2. Comprehend significant phases in community development
3. Gain knowledge on sustainability and community development concepts
4. Envisage the role of community-based organizations in community development

Course Content**Unit-I. Concept of Community Development****(12 Lectures)**

Meaning and Definition of community development Principles, Philosophy and objectives
 Elements of community development -Community development as a process, community development as a method, community development as a programme, community development as a movement
 Rural development initiatives prior to independence and post-independence

Unit-II. Role of Community Based Organizations**(12 Lectures)**

Conceptual meaning and definition of community based organizations Role, structure and functions of community organizations

Models of community based organizations Approaches of community based organizations

Unit-III. Phases of Community Development

(12 Lectures)

Phases of community development – definition and needs

Seven Phases of community development: sequence and exclusive roles

Relationship

Assessment

Discussion

Organization

Reflection

Modification

Continuation

Personnel involved in community development activities – qualities and role National Extension Service – Role of student volunteers in community development

Unit-IV. Evaluation of Community Development Programmes

(12 Lectures)

Review of community development programmes Evaluation methods

Analysis /merits and demerits

Community involvement and assay of Benefits Incentives and Prizes/ Awards

Unit-V. Sustainability and Community Development

(12 Lectures)

Concept of sustainable community development SDGs – Sustainable Development Goals – concept Significance of SDGs to community development Need for sustainable community development

Sustainability in community development- aims, objectives and principles

Recommended Reading

1. Banta Sharma Nidaugmayum (2015). Community organization and social registration. New Delhi: Janada prakashan
 2. Indra Godara (2013). Committee and community organization. New Delhi : Black prints publishing
 3. Kunal Bhatia (2012). Social Work and Community Development. New Delhi: Sonali publications
 4. Reddy A.S.A (2001). Extension Education. Bapatla: Sree Lakshmi Press
 5. Thomas William, A.J. (2015). Rural Development Concept and Recent approaches. New Delhi, RAWAT publications
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HOME SCIENCE PRACTICAL- AMJ 4E LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS:**60 Lectures**

1. Assessment of selected community development programmes
2. Visit to Award won Panchayats to understand their success story
3. Visit to villages to observe community activities
4. Prepare a document on community development activities in a model village
5. Preparation of plan of work
6. Organize community development programmes in a selected rural area
7. Follow up and evaluation of the programmes in progress

Recommended Reading

1. Banta Sharma Nidaugmayum (2015). Community organization and social registration. New Delhi: Janada prakashan
 2. Indra Godara (2013). Committee and community organization. New Delhi: Black prints publishing
 3. Kunal Bhatia (2012). Social Work and Community Development. New Delhi: Sonali publications
 4. Reddy A.S.A (2001). Extension Education. Bapatla: Sree Lakshmi Press
 5. Thomas William, A.J. (2015). Rural Development Concept and Recent approaches. New Delhi, RAWAT publications
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COURSES OF STUDY FOR INTRODUCTORY/ MINOR ELECTIVE FYUGP IN “HOME SCIENCE”

SEMESTER I/ II/ III

INTRODUCTORY REGULAR COURSE

1 Paper

I. INTRODUCTORY REGULAR COURSE (IRC)

(Credits: Theory-02, Practicals-01)

- All Four Introductory & Minor Papers of Home Science to be studied by the Students of **Other than Home Science Honours.**
- Students of **Home Science Honours** must Refer Content from the **Syllabus of Opted Introductory & Minor Elective Subject.**

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75	Pass Marks: Th (SIE + ESE) = 30
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Instruction to Question Setter for

Semester Internal Examination (SIE 10+5=15 marks):

There will be two groups of questions. Question No.1 will be very short answer type in Group A consisting of five questions of 1 mark each. Group B will contain descriptive type two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be two groups of questions. Group A is compulsory which will contain three questions. Question No.1 will be very short answer type consisting of five questions of 1 mark each. Question No.2 & 3 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

INTRODUCTORY HOME SCIENCE

Theory: 30 Lectures

Course Description

This course will give a basic understanding of overall domain of Home Science as a discipline. It will deal with the basic knowledge of all the five branches or area of specialisation under the subject Home Science as an applied science

Learning Objectives

1. To make students enable to understand the domains of Home Science as a Subject
2. To make students aware of basics of Nutrition for a healthy life.
3. To make an understanding of Life and Human Development
4. To develop understanding of resources their best utilisation, textiles and their uses, Home Science extension education system for better community outreach programme

Learning Outcome

On successful completion of course

1. Students will develop a basic understanding of Home Science as Subjects.
2. Students will develop knowledge and understanding about health & nutrition, Human Development and its need, textiles & their uses, family resources and extension education system in order to achieve the aimed SDC by 2030.

Course Content**Unit I- Foods and Nutrition****(6 Lectures)**

Basic understanding of Foods, Nutrition, Health and its relationship, terminologies

Function of Food, Food Groups as source of various nutrients.

Macro and micronutrients, water

Principles of meal planning, RDA

A brief knowledge of nutrition during infancy, childhood, adolescence, adulthood, old age and special condition (pregnancy, lactation, calamities, disaster)

Unit II- Human Development**(6 Lectures)**

Definition, Introduction and importance of Human Development

Pre-natal development, birth and neonates, stages and factors affecting pre-natal development

Various developments during Infancy, Childhood, Adolescence, Adulthood, old age, (Physical, Mental, Social, Emotional)

Unit III- Family Resource Management**(6 Lectures)**

Concept, Universality, and Scope of management, approaches to management

Family as resource, Meaning, classification and characteristics of resources, factor affecting utilisation of resources, maximising use of resources and resource conservation

Family as resource, availability and management of resources by an individual/family- money, time, energy, space. Event planning and execution.

Unit IV- Textiles and Clothing**(6 Lectures)**

Textile fibers, its properties, classification, a brief comparative study of production, properties, uses of major natural (cotton, wool, silk, linen, jute) and manmade fiber (Nylon, Polyester, acrylic)

Basic concept of yarn and fabric manufacturing process

Reason of wearing clothes, factors affecting selection of cloth/ apparel

Stain removal of major stains

Unit V- Home Science Extension Education**(6 Lectures)**

Definition, concept, nature, philosophy and principles of Home science extension education

Methods and media of community outreach; Audio visual aids- concept, classification, characteristics and scope

Relationship between communication, extension and development.

Recommended Readings:

1. Srilakshmi (2007). Food Science, 4th Edition. New Age International Ltd.
2. Wardlaw and Insel MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition. Mosby.
3. Chadha R and Mathur P (eds). Nutrition: A Lifecycle Approach. Orient Blackswan, New Delhi. 2015
4. Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata McGraw- Hill.
5. Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient BlackSwan.
6. Patri and Patri (2002); Essentials of Communication. Greenspan Publications
7. Rao V.S. and Narayana P.S., Principles and Practices of Management, 2007, Konark Pub. Pvt. Ltd.
8. Corbman, P.B., (1985) Textiles- Fiber to Fabric (6th Edition), Gregg Division/McGraw Hill Book Co.
9. Sekhri S., (2013) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi

HOME SCIENCE PRACTICAL- IRC LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICAL**30 Lectures**

1. Cultural practices related to pregnancy and infancy
2. Methods of study children- interview, observation, narratives
3. Planning and preparation of diet for infant, children, pregnant and lactating women
4. Planning and executing Birthday party/ fresher's party
5. Stain removal- Haldi, Curry, nailpolish, ball point ink, paint/warnish/ polish
6. Preparation of chart and poster to educate Mothers for caring their new born babies

Recommended Readings:

1. Srilakshmi (2007). Food Science, 4th Edition. New Age International Ltd.
 2. Wardlaw and Insel MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition. Mosby.
 3. Chadha R and Mathur P (eds). Nutrition: A Lifecycle Approach. Orient Blackswan, New Delhi. 2015
 4. Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata McGraw- Hill.
 5. Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient BlackSwan.
 6. Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient BlackSwan.
 7. Patri and Patri (2002); Essentials of Communication. Greenspan Publications
 8. Rao V.S. and Narayana P.S., Principles and Practices of Management, 2007, Konark Publishers Pvt. Ltd.
 9. Corbman, P.B., (1985) Textiles- Fiber to Fabric (6th Edition), Gregg Division/McGraw Hill Book Co., US.
 10. Sekhri S., (2013) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi
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SEMESTER IV

MINOR ELECTIVE-1

1 Paper

I. MINOR ELECTIVE (MN 1)

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75

Pass Marks: Th (SIE + ESE) = 30

Instruction to Question Setter for**Semester Internal Examination (SIE 10+5=15 marks):**

There will be **two** groups of questions. Question No.1 will be **very short answer type in Group A** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be **two** groups of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

NUTRITION: A LIFESPAN APPROACH**Theory: 60 Lectures****Course Description**

The course deals with basic understanding of nutritional requirements of various age groups. In order to meet the nutritional requirement, it also gives concept of balanced diet, meal planning, recommended nutritional requirements, nutritional assessment etc.

Course Objective

1. To develop an understanding of importance of Nutrition and nutritional requirement through every phases of life
2. To learn the basics of meal planning to ensure the complete nutrition,

Course Outcome

1. On successful completion of course students will be able to identify the nutritional need of any age group
2. Will be able to plan, prescribe the proper diet to meet the RDA of any age group or category of community
3. Will develop an understanding of meeting the nutritional need by alternative food group or sources.

Course Content**Unit I: Principles of Meal Planning****(10 Lectures)**

Balanced diet
Food groups
Food exchange list
Factors effecting meal planning and food related behaviour.
Dietary guidelines for Indians and food pyramid

Unit II: Nutrient Requirements**(8 Lectures)**

Concept of Dietary Reference Intakes
Overview of methods for assessment of nutrient needs

Unit III: Nutrition for Adulthood and Old Age (12 Lectures)

Adult: Nutrient requirements for adult man and woman, RDA, nutritional guidelines, nutritional concerns, diet and lifestyle related diseases and their prevention

Elderly – Physiological changes in elderly, RDA, nutritional guidelines, nutritional and health concerns in old age and their management, factors contributing to longevity

Unit IV: Nutrition During Pregnancy and Lactation (12 Lectures)

Pregnancy – Physiological changes in pregnancy, RDA, nutritional guidelines, nutritional needs, effect of nutritional status on pregnancy outcome, optimal weight gain and its components, nutrition related problems in pregnancy and ways to control them.

Lactation – Physiology of lactation, RDA and nutritional needs of a nursing mother, nutritional guidelines

Unit V: Nutrition During Childhood (18 Lectures)

Growth and development, growth reference/ standards, RDA, nutritional guidelines, nutritional concerns and healthy food choices - Infants - Preschool children - School children - Adolescents

Recommended Readings:

1. Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Phoenix Publishing House Pvt. Ltd.
 2. Wardlaw GM, Hampi JS, DiSilvestro RA (2004). Perspectives in Nutrition, 6th edition. McGraw Hill.
 3. ICMR (2011) Dietary Guidelines for Indians. Published by National Institute of Nutrition, Hyderabad.
 4. ICMR (2010) Recommended Dietary Allowances for Indians. Published by National Institute of Nutrition, Hyderabad. 105
 5. Chadha R and Mathur P eds. (2015) Nutrition: A Lifecycle Approach. Orient Blackswan. New Delhi.
 6. Seth V and Singh K (2006). Diet Planning through the Life Cycle: Part 1 Normal Nutrition. A Practical Manual. Elite Publishing House Pvt. Ltd. New Delhi.
 7. Gopalan C, Rama Sastri BV, Balasubramanian SC (1989) Nutritive Value of Indian Foods. National Institute of Nutrition, ICMR, Hyderabad.
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HOME SCIENCE PRACTICAL- MN 1 LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICAL**60 Lectures****1. Introduction to Meal Planning**

Use of food exchange list

2. Planning and Preparation of Diets and Dishes for

- Young adult
- Pregnant and Lactating woman
- Preschool child
- School age child and adolescents
- Elderly

3. Planning Complementary Foods for Infants and Toddlers**Recommended Readings:**

1. Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Phoenix Publishing House Pvt. Ltd.
 2. Wardlaw GM, Hampi JS, DiSilvestro RA (2004). Perspectives in Nutrition, 6th edition. McGraw Hill.
 3. ICMR (2011) Dietary Guidelines for Indians. Published by National Institute of Nutrition, Hyderabad.
 4. ICMR (2010) Recommended Dietary Allowances for Indians. Published by National Institute of Nutrition, Hyderabad. 105
 5. Chadha R and Mathur P eds.(2015) Nutrition: A Lifecycle Approach. Orient Blackswan. New Delhi.
 6. Seth V and Singh K (2006). Diet Planning through the Life Cycle: Part 1 Normal Nutrition. A Practical Manual. Elite Publishing House Pvt. Ltd. New Delhi.
 7. Gopalan C, Rama Sastri BV, Balasubramanian SC (1989) Nutritive Value of Indian Foods. National Institute of Nutrition, ICMR, Hyderabad.
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SEMESTER V

MINOR ELECTIVE-2

1 Paper

I. MINOR ELECTIVE (MN 2)

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75**Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):***

There will be **two** groups of questions. Question No.1 will be **very short answer type in Group A** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be **two** groups of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

CURRENT CONCERNS IN PUBLIC HEALTH NUTRITION**Theory: 60 Lectures****Course description**

The focus of this course is to identify health and nutrition problems and integrating nutritional services with medical and social services within the community. This course will also provide basic knowledge and skills relevant to the practice of community nutrition, the role of nutrition in health promotion and perspectives for resolving community nutrition problems, Needs for assessment issues and national and state community nutrition programs, determinants of health outcomes, measurement of nutrition and health status, food and nutrition policy, legislative issues and management of community programs.

Learning objectives:

1. To know the basics of public health nutrition
2. To understand the need of prioritizing nutrition issues
3. To assess the nutritional and Health Status of an individual and the community.
4. To learn nutritional programmes and policies to overcome malnutrition
5. To understand various national and International nutritional organizations for combating malnutrition
6. To apply ICT in the formulation of community nutrition education programme

Learning outcomes:

1. The concepts and knowledge required for the delivery of community nutrition services will be applied to program planning, intervention and program evaluation
2. Gaining knowledge on nutritional programmes and policies overcoming malnutrition
3. Understanding the national, international and voluntary nutritional organizations to combat malnutrition
4. Able to organize community nutrition education programme with the application of computers.
5. Apply immunological intervention programmes to overcome epidemic of communicable diseases.

Course Content**Unit I: Nutritional Problems Affecting the Community (20 Lectures)**

Aetiology, prevalence, clinical features and preventive strategies of-
Undernutrition - Protein energy malnutrition: Severe Acute Malnutrition and Moderate Acute Malnutrition, Nutritional Anaemias, Vitamin A Deficiency, Iodine Deficiency Disorders
Over nutrition – obesity, coronary heart disease, diabetes
Fluorosis

Unit II: Strategies for Improving Nutrition and Health Status of the Community (5 Lectures)

Appropriate interventions involving different sectors such as Food, Health and Education

Unit III: Unit III: Nutrition Policy and Programmes (25 Lectures)

National Nutrition Policy
Integrated Child Development Services (ICDS) Scheme, Mid-day Meal Programme (MDMP),
National programmes for prevention of Anaemia, Vitamin A deficiency, Iodine Deficiency Disorders Unit

Unit IV: Food and Nutrition Security (10 Lectures)

Concept, components, determinants and approaches
Overview of Public Sector programmes for improving food and nutrition security

Recommended Readings:

1. Wadhwa A and Sharma S (2003). Nutrition in the Community-A Textbook. Elite Publishing House Pvt. Ltd. New Delhi.
 2. Park K (2011). Park's Textbook of Preventive and Social Medicine, 21st Edition. M/s BanarasidasBhanot Publishers, Jabalpur, India.
 3. Bamji MS, Krishnaswamy K and Brahmam GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
 4. Gibney MJ (2005). Public Health Nutrition.
 5. Vir S. (2011) Public Health Nutrition in developing countries. Vol 1 and 2
 6. ICMR (1989) Nutritive Value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
 7. ICMR (2011) Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
 8. Bamji MS, Krishnaswamy K and Brahmam GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi
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HOME SCIENCE PRACTICAL- MN 2 LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICAL**60 Lectures**

1. Planning and evaluation of low cost nutritious recipes for preschoolers, school age children, adolescents, pregnant and nursing mothers.
2. Planning and evaluation of low calorie nutritious recipes for weight management.
3. Planning and conducting a food demonstration.
4. Visit to an ongoing nutrition programme.

Recommended Readings:

1. Wadhwa A and Sharma S (2003). Nutrition in the Community-A Textbook. Elite Publishing House Pvt. Ltd. New Delhi.
 2. Park K (2011). Park's Textbook of Preventive and Social Medicine, 21st Edition. M/s Banarasidas Bhanot Publishers, Jabalpur, India.
 3. Bamji MS, Krishnaswamy K and Brahmam GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
 4. Gibney MJ (2005). Public Health Nutrition.
 5. Vir S. (2011) Public Health Nutrition in developing countries. Vol 1 and 2
 6. ICMR (1989) Nutritive Value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
 7. ICMR (2011) Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
 8. Bamji MS, Krishnaswamy K and Brahmam GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi
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SEMESTER VI**MINOR ELECTIVE-3****1 Paper****I. MINOR ELECTIVE (MN 3)**

(Credits: Theory-04, Practicals-02)

Marks: 15 (5 Attd. + 10 SIE: 1Hr) + 60 (ESE: 3Hrs) = 75**Pass Marks: Th (SIE + ESE) = 30*****Instruction to Question Setter for******Semester Internal Examination (SIE 10+5=15 marks):***

There will be **two** groups of questions. **Question No.1** will be **very short answer type in Group A** consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of five marks each, out of which any one to answer.

The Semester Internal Examination shall have two components. (a) One Semester Internal Assessment Test (SIA) of 10 Marks, (b) Class Attendance Score (CAS) of 5 marks. Conversion of Attendance into score may be as follows: (Attendance Upto 45%, 1 mark; 45<Attd.<55, 2 marks; 55<Attd.<65, 3 marks; 65<Attd.<75, 4 marks; 75<Attd, 5 marks)

End Semester Examination (ESE 60 marks):

There will be **two** groups of questions. **Group A is compulsory** which will contain three questions. **Question No.1 will be very short answer type** consisting of five questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

CARE AND WELL-BEING IN HUMAN DEVELOPMENT**Theory: 60 Lectures****Course Description**

Course deals with basic concept of Human development, factors affecting development and its relation with wellbeing. It also aims to develop understanding about programme and policies for promoting human development.

Course Objective

1. To develop basic understanding and knowledge of Human development and factor affecting it
2. To enable to have idea and knowledge of policies and programs related to Human development

Course Outcome

1. On completion of this course students will be well acquainted with knowledge for uplifting general population through better understanding of knowledge of human development

Course Content**Unit I: Care and Human Development****(15 Lectures)**

Definition, concepts & relevance of care
Vulnerable periods in life that require care
Principles & components of care

Unit II: Well-being and Human Development**(15 Lectures)**

Concept of well-being-- physical, psychological, spiritual
Life crises and well-being • Factors & experiences that promote well-being

Unit III: Care & well-being at different stages of life**(20 Lectures)**

Childhood years • Adolescence • Adulthood and old age
Well-being of caregivers

Unit IV: Policies, Services & Programs**(10 Lectures)**

School health programs
Nutrition & health for all
Counselling & yoga

Recommended Readings:

1. IGNOU. (2011). Positive psychology-2, MCFT-006 Applied social Psychology. New Delhi: IGNOU. 111
 2. Santrock, J.W. (2007). Life Span Development (3rd ed.). New Delhi: Tata McGraw-Hill.
 3. Seligman, M.E.P. (2002). Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment. New York: Free Press.
 4. Sriram, R. (2004). Ensuring infant and maternal health in India. In J. Pattnaik (Ed.). Childhood in South Asia: A critical look at issues, policies and programs. Conn .USA: Information Age.
 5. Singhi, P.(1999). Child health & well-being: Psychosocial care within & beyond hospital walls. In T.S. Saraswathi (Ed.).Culture, socialization and human development. New Delhi: Sage.
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HOME SCIENCE PRACTICAL- MN 3 LAB:**Marks : Pr (ESE: 3Hrs) =25****Pass Marks: Pr (ESE) = 10*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

PRACTICAL**60 Lectures**

1. Observations of children (1 infant, 1 toddler) to understand their care needs
2. Interview of a mother of a school-going child to understand her perspective of care and child's well-being
3. Interaction with two adolescents (male, female) to explore their perspectives on well-being
4. Visit to a senior citizens' home to study their care and well-being
5. Lecture/workshop by a counselor on significance of counseling
6. Participation in yoga/ self-development session

Recommended Readings:

1. IGNOU. (2011). Positive psychology-2, MCFT-006 Applied social Psychology. New Delhi: IGNOU. 111
 2. Santrock, J.W. (2007). Life Span Development (3rd ed.). New Delhi: Tata McGraw-Hill.
 3. Seligman, M.E.P. (2002). Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment. New York: Free Press.
 4. Sriram, R. (2004). Ensuring infant and maternal health in India. In J. Pattnaik (Ed.). Childhood in South Asia: A critical look at issues, policies and programs. Conn. USA: Information Age.
 5. Singhi, P. (1999). Child health & well-being: Psychosocial care within & beyond hospital walls. In T.S. Saraswathi (Ed.). Culture, socialization and human development. New Delhi: Sage.
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FORMAT OF QUESTION PAPER FOR SEMESTER INTERNAL EXAMINATION

Question format for 10 Marks:

Subject/ Code		Exam Year
F.M. =10	Time=1Hr.	
General Instructions:		
i. Group A carries very short answer type compulsory questions.		
ii. Answer 1 out of 2 subjective/ descriptive questions given in Group B .		
iii. Answer in your own words as far as practicable.		
iv. Answer all sub parts of a question at one place.		
v. Numbers in right indicate full marks of the question.		
<u>Group A</u>		
1.		[5x1=5]
i.	.....
ii.	.....
iii.	.....
iv.	.....
v.	.....
<u>Group B</u>		
2.	.....	[5]
3.	.....	[5]
Note: There may be subdivisions in each question asked in Theory Examination.		

Question format for 20 Marks:

Subject/ Code		Exam Year
F.M. =20	Time=1Hr.	
General Instructions:		
i. Group A carries very short answer type compulsory questions.		
ii. Answer 1 out of 2 subjective/ descriptive questions given in Group B .		
iii. Answer in your own words as far as practicable.		
iv. Answer all sub parts of a question at one place.		
v. Numbers in right indicate full marks of the question.		
<u>Group A</u>		
1.		[5x1=5]
i.	.....
ii.	.....
iii.	.....
iv.	.....
v.	.....
2.	.....	[5]
<u>Group B</u>		
3.	.....	[10]
4.	.....	[10]
Note: There may be subdivisions in each question asked in Theory Examination.		

FORMAT OF QUESTION PAPER FOR END SEMESTER UNIVERSITY EXAMINATION

Question format for 50 Marks:

Subject/ Code	Time=3Hrs.	Exam Year
F.M. =50		
General Instructions:		
i. Group A carries very short answer type compulsory questions.		
ii. Answer 3 out of 5 subjective/ descriptive questions given in Group B .		
iii. Answer in your own words as far as practicable.		
iv. Answer all sub parts of a question at one place.		
v. Numbers in right indicate full marks of the question.		
<u>Group A</u>		
1.		[5x1=5]
i.	
ii.	
iii.	
iv.	
v.	
<u>Group B</u>		
2.	[15]
3.	[15]
4.	[15]
5.	[15]
6.	[15]
Note: There may be subdivisions in each question asked in Theory Examination.		

Question format for 60 Marks:

Subject/ Code	Time=3Hrs.	Exam Year
F.M. =60		
General Instructions:		
i. Group A carries very short answer type compulsory questions.		
ii. Answer 3 out of 5 subjective/ descriptive questions given in Group B .		
iii. Answer in your own words as far as practicable.		
iv. Answer all sub parts of a question at one place.		
v. Numbers in right indicate full marks of the question.		
<u>Group A</u>		
1.		[5x1=5]
i.	
ii.	
iii.	
iv.	
v.	
2.	[5]
3.	[5]
<u>Group B</u>		
4.	[15]
5.	[15]
6.	[15]
7.	[15]
8.	[15]
Note: There may be subdivisions in each question asked in Theory Examination.		

Question format for 75 Marks:

Subject/ Code		Exam Year
F.M. = 75	Time=3Hrs.	
General Instructions:		
i. Group A carries very short answer type compulsory questions.		
ii. Answer 4 out of 6 subjective/ descriptive questions given in Group B .		
iii. Answer in your own words as far as practicable.		
iv. Answer all sub parts of a question at one place.		
v. Numbers in right indicate full marks of the question.		
Group A		
1.		[5x1=5]
i.	.....
ii.	.....
iii.	.....
iv.	.....
v.	.....
2.	.....	[5]
3.	.....	[5]
Group B		
4.	.....	[15]
5.	.....	[15]
6.	.....	[15]
7.	.....	[15]
8.	.....	[15]
9.	.....	[15]
Note: There may be subdivisions in each question asked in Theory Examination.		

Question format for 100 Marks:

Subject/ Code		Exam Year
F.M. = 100	Time=3Hrs.	
General Instructions:		
i. Group A carries very short answer type compulsory questions.		
ii. Answer 4 out of 6 subjective/ descriptive questions given in Group B .		
iii. Answer in your own words as far as practicable.		
iv. Answer all sub parts of a question at one place.		
v. Numbers in right indicate full marks of the question.		
Group A		
1.		[10x1=10]
i.	.....
ii.	.....
iii.	.....
iv.	.....
v.	.....
vi.	.....
vii.	.....
viii.	.....
ix.	.....
x.	.....
2.	.....	[5]
3.	.....	[5]
Group B		
4.	.....	[20]
5.	.....	[20]
6.	.....	[20]
7.	.....	[20]
8.	.....	[20]
9.	.....	[20]
Note: There may be subdivisions in each question asked in Theory Examination.		