



**GOVERNMENT HOME SCIENCE COLLEGE
SECTOR-10, CHANDIGARH**

NAAC ACCREDITED GRADE 'A'

NIRF INDIA RANKINGS 2022 by Ministry of Education, GOI : 46th



**3rd Cycle
Assessment & Accreditation by NAAC
CRITERION-I
CURRICULAR ASPECTS**



CRITERION 1
KEY INDICATOR- Curriculum Enrichment

METRIC 1.3.1

Institution integrates cross cutting issues relevant to Professional ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

INDEX

Sr.No.	Curriculum	Page No.
1.	Professional Ethics	3-12
2.	Gender	13-17
3.	Human Values	18-36
4.	Sustainability and Environment	37-78
5.	Enrichment beyond Curriculum	79

Syllabus
Professional Ethics

Sr. No	Class	Page No.
1.	M.Sc. HDFR 2 nd Semester	4-7
2.	M.Sc. FN 4 th Semester	8-12

Semester – II

HD 107	Theories of Developmental Psychology	4	--	4	90	10	100	--	--	--	100
HD 108	Guidance and Counseling Across the Life Span	3	2	5	65	10	75	40	10	50	125
HD 109	Physical Growth & Development	3	--	3	65	10	75	--	--	--	75
HD 110	Development of Creativity in Children	2	2	4	45	05	50	40	10	50	100
HD 111	Mental Health in Developmental Perspective	2	--	2	45	05	50	--	--	50	50
HD 112*	Early Childhood years (Seminar)	--	2	2	--	--	--	--	50	50	50
HD 113**	Dissertation (Synopsis)	--	2	2	--	--	--	--	50	50	50
				22							550

****Marks will be awarded by the supervisor internally on the basis of synopsis/continuous evaluation *There will be no University examination for this practical. Internal Evaluation will be based on continuous assessment.**

7. James, A. & Prout, J. (Eds.). (1990). Constructing and reconstructing childhood. London: Falmer Press.
8. Maier, H.W. (1965). Three theories of child development. , New York: Harper & Row Publishers
9. Muus, E. Rolf. (1996). Theories of Adolescence. USA: McGraw Hill, Inc.
10. Kakar, S. (1997). Culture and psyche – Selected essays. Delhi: Oxford University Press.
11. Smith, J.A., Harre, R., & Van Langenhove, L. (1995). Rethinking psychology. London: Sage.
12. Vasta, R. (Ed.). (1992). Six theories of child development: Revised formulations and current issues .London: Sessica Kingsley Publishers Ltd.

GUIDANCE AND COUNSELING ACROSS THE LIFE SPAN (THEORY)

Maximum Marks: 75

Paper: 65

Internal Assessment: 10

Course No: HD 108

Credit Hours: 3/ week

Duration of Exam: 3 hours

Instructions to the Examiner

Question paper will have four sections. Examiner will set a total of nine questions comprising two questions from each unit, and one compulsory question of short answer type covering the whole syllabus. Students will attempt one question from each unit and the compulsory question. All questions will carry equal marks, unless specified.

Objectives

1. To introduce basic concepts in guidance and counselling.
2. To understand the need for guidance and counselling in human development.
3. To discuss the processes involved in counselling at different

stages in life. Contents

UNIT-I

1. Meaning, aims, principles and basic assumptions of guidance. Need and importance of child and family guidance. Kinds of guidance –educational, vocational and personal.
2. Guidance of children at home and school
Elementary school years
Middle years
Need of sex education at home and school.

UNIT-III

3. Nature of psychological disorders that require counselling and therapy in the following stages of human development
 - Childhood
 - Adolescence
 - Adulthood

- Old age

UNIT-IV

4. Meaning, aims, principles, stages and basic assumptions of counselling. Qualities and skills of a counsellor.
5. Techniques of counselling – directive, non directive, eclectic.

* Guidelines for internal assessment – Refer to scheme of studies

References:

1. Burnard,P. (1999). Counseling skills training. New Delhi: Viva Books.
2. Gladding,S.T.(1996). Counseling: A comprehensive profession .Ohio: Prentice Hall.
3. Jones ,R.N.(2002). Basic counseling skills –A helper’s manual.
4. Patterson,H.C.(1986). Theories of counseling and psychotherapy. New York: Harper.
5. Shertzer,B. &Stone,S.C.(1981). Fundamentals of guidance. Boston: Houghton.

GUIDANCE AND COUNSELING ACROSS THE LIFE SPAN (PRACTICAL)

Maximum Marks: 50

Paper : 40

Internal Assessment: 10

Course No: HD 108

Credit Hours: 2/ week

Duration of Exam: 3 hours

Instructions to the Examiner

Note:

1. Each practical paper will be of three hours duration.
2. The question paper should cover the entire

syllabus. Objectives

1. To create awareness of the basic skills involved in counseling.
2. To make the students understand psychosocial aspects of any problem behavior.
3. To develop competencies for interacting with families in need.
4. To make students aware of various agencies rendering guidance and counseling services in the city.

Contents

1. Visit and write the report on any two counseling centre such as HIV AIDS, drug de-addiction centre etc.
2. Collect three case studies and analyze the psychosocial problems in each. Prepare case reports.
3. Plan and organize life style education programs such as stress management, positive thinking, building self-esteem, motivation etc.

4. Conducting role play/street play/puppet show etc. to generate community awareness on issues and topics related to human development and family relations.
5. Interaction with practicing counselors working in schools, clinics, women centre, and hospitals and preparing a report of the same.

Internal Assessment is based as follows:

Terminal examination :	5 marks
File :	3 marks
Attendance :	2 marks
Total :	10 marks

References

1. Ferguson, R., & Kelly, M. (2005). Enhancing emotional intelligence. New York: Raleigh Consulting.
2. Geldard, K., & Geldard, D.(2004). Counseling adolescents. New Delhi: Sage Publications.
3. Gladding, S.T.(1996). Counseling: A comprehensive profession .Ohio: Prentice Hall.
4. Matthews, T. (2001). Being a happy teen. Australia: Seashell Publishers.

~~PHYSICAL GROWTH AND DEVELOPMENT (THEORY)~~

~~Course No. HD 109 Credit
Hours: 3/ week Duration
of Exam: 3 hours~~

~~Maximum Marks: 75
Paper: 65
Internal Assessment: 10~~

~~Instructions to the Examiner~~

~~Question paper will have four sections. Examiner will set a total of nine questions comprising two questions from each unit, and one compulsory question of short answer type covering the whole syllabus. Students will attempt one question from each unit and the compulsory question. All questions will carry equal marks, unless specified.~~

~~Objectives~~

- ~~1. To understand the concept of growth and development~~
- ~~2. To understand the role of nutrition in the development of an individual~~
- ~~3. To discuss the factors affecting physical growth and development~~

~~Contents~~

UNIT-I

- ~~1. Biological and physiological foundations of growth and development.~~
- ~~2. Factors affecting growth and development.~~

UNIT-II

- ~~3. Principles of growth and development~~

SEMESTER IV

CODE	SUBJECT	CREDIT HOURS			THEORY MARKS			PRACTICAL MARKS			TOTAL
		T	P	TOTAL	PAPER	INT.	TOTAL	PAPER	INT.	TOTAL	
1	Principles of Food Science	3	2	5	65	10	75	40	10	50	125
2	Entrepreneurial Ventures in Food Industry	2	2	4	45	05	50	40	10	50	100
3	Alternative Medicines and Nutrition	2	-	2	45	05	50	-	-	-	50
4	Dissertation	-	4	4	-	-	-	-	100	100	100
	TOTAL	7	8	15							375

Students are required to undergo 6 weeks internship in the Dietetics Department of a hospital. The certificate of completion of internship is mandatory for obtaining the degree.

**ENTREPRENEURIAL VENTURES IN FOOD INDUSTRY
(THEORY)**

Maximum Marks: 50

Paper: 45

Internal Assessment: 05

Credit Hours: 2/week

Duration of Exam: 3 hours

Instructions to the paper setter:

Question paper will have four sections/units. Paper setter will set a total of nine questions comprising of two questions from each unit and one compulsory question of short answer type covering the whole syllabus. Student will attempt one question from each unit and the compulsory question. All questions may carry equal marks, unless specified.

Objectives:

To enable the students to-

1. To motivate the students to undertake entrepreneurial ventures in food industry
2. To enable them to translate entrepreneurial knowledge into income generation and self employment
3. To disseminate knowledge about setting up of startups and small enterprises in relation to food industry.

UNIT - I

1. Entrepreneurship as a Process

- γ Concept, importance and features of entrepreneurship and entrepreneur
- γ Overview of differences among entrepreneur, manager, and business owner.
- γ Problems in the growth of entrepreneurship

2. Formation of Business Plan

- γ Business ideas: Definition and characteristics of good business idea
- γ Sources of long term and short term finance
- γ Government incentives, subsidies and grants for setting up of food enterprises in India

UNIT - II

3. Startups and Small Business Development in Food Industry

- Y Types, Features and importance of startups and small business
- Y Growth of Micro, Small and Medium enterprises (MSME) in food industry
- Y Problems faced by (MSME) in food industry

4. Food technology Startups in India and Developed countries

- Y Concept, features and development of technology startups
- Y Case study; Any two food technology startups with reference to challenges, concerns and sustainability issues

UNIT-III

5. Electronic-Commerce and Food Enterprise Development in India

- Y Meaning and evolution
- Y Growth of e-commerce industry in India
- Y E- commerce suitability for small enterprises and prospective areas in relation to food industry.

6. SWOC analysis

- Conducting a SWOC (Strength, Weakness, Opportunities and Challenges)
- Analysis of business and competitors

UNIT- IV

7. Growth Strategies in Small business

- Y Objectives and stages of growth in small business
- Y Types of growth strategies
- Y Expansion and diversification

8. Business Development and Marketing Strategies in relation to food industry

- Y Sales promotion: Objectives and tools
- Y Overview of advertising, packaging and branding as marketing tools

RECOMMENDED READINGS

- γ Gupta , C.B and Srinivisan, N.P (2001). Entrepreneurship Development. Sultan Chand and Sons
- γ Khanka ,S.S. (1998). Entrepreneurship Development. Sultan Chand and Sons,
- γ Patel, V. G. (1995). The Seven Business Crises and How to Beat Them. Tata-McGraw, New Delhi
- γ Small Industries Development Board of India (IDBI) Report on Small Scale Industrial Sector (Latest Editions)
- γ Taneja, S and Gupta, S.L. (2000). Entrepreneurship Development-New Venture Creation. Galgotia Publishing

ENTREPRENEURIAL VENTURES IN FOOD INDUSTRY

(PRACTICAL)

Maximum Marks: 50

Paper: 40

Credit Hours: 2/week

Internal Assessment: 10

Duration of Exam: 3 hours

1. Standardization, Preparation and Sale of selected quality recipes
2. Project Report and presentation of case studies on any two food technology startups with reference to challenges, concerns and sustainability issues
3. Practical training in establishment of a start up initiative

RECOMMENDED READINGS

- γ Gupta , C.B and Srinivisan, N.P (2001). Entrepreneurship Development. Sultan Chand and Sons
- γ Khanka ,S.S. (1998). Entrepreneurship Development. Sultan Chand and Sons,
- γ Patel, V. G. (1995). The Seven Business Crises and How to Beat Them. Tata-McGraw, New Delhi
- γ Small Industries Development Board of India (IDBI) Report on Small Scale Industrial Sector (Latest Editions)
- γ Taneja, S and Gupta, S.L. (2000). Entrepreneurship Development-New Venture Creation. Galgotia Publishing

Syllabus

Gender

Sr. No	Class	Page No.
1.	M.Sc. HDFR 3 rd Semester	14-17

Semester –III

Code	Subject	Credit Hours			Theory Marks			Practical Marks			Grand Total
		Theory	Practical	Total	Paper	Internal Assessment	Total	Paper	Internal Assessment	Total	
HD 113#	Dissertation (Review of literature and Data Collection)	--	2	2	--	--	--	--	50	50	50
HD 114*	Program Planning and Placement in Child Welfare Agencies	--	4	4	--	--	--	20 (viva voce)	80 (continuous assessment)	100	100
HD 115	Care & Education of Children with Special Needs	4	2	6	90	10	100	40	10	50	150
HD 116	Principles of Development	4	--	4	90	10	100	--	--		100
HD 117	Women Empowerment	2	2	4	45	05	50	40	10	50	100
HD 118*	Adolescence (Seminar)	--	2	2	--	--	--	--	50	50	50
				22							550

#Marks will be awarded by the supervisor internally on the basis of data collection/continuous evaluation.

*Internal Evaluation will be based on continuous assessment which will include school placements focusing on planning of activities, participation skills, parent-teacher meeting, nutrition programs, teaching aids and report writing.

**Women Empowerment
(Theory)**

**Course No.: HD 117
Credit Hours: 2/week
Duration of Exam: 03 hours**

**Maximum Marks: 50
Paper: 45
Internal Assessment: 5**

Instructions to the Examiner

Question paper will have four sections. Examiner will set a total of nine questions comprising two questions from each unit, and one compulsory question of short answer type covering the whole syllabus. Students will attempt one question from each unit and the compulsory question. All questions will carry equal marks, unless specified

Course Objectives:

To empower the students with knowledge about women empowerment.

To introduce students to the changing role and status of women in India, and the reality of women empowerment in the era of globalization.

To sensitize students on gender issues.

1. Changing role and status of women in historical perspective: Ancient, medieval, pre and post independence
 2. Various theories of feminism: Liberal, Marxist, Radical and Socialist.
 3. Women Empowerment: Meaning, concept, nature, objectives and stake holders of women empowerment
 4. Reality of women empowerment in India- Problem and issues of women empowerment: Socio cultural, gender bias, form and nature of women exploitation. Determinants of women empowerment: Education, health, social life, financial capacity, communication skills, representation in state policy, cultural life, decision making, source and quality of information and mobility
- Unit III**
5. Education of women: Female literacy and non - formal education for women development. Review of female literacy programme in India.
 6. Working women in India: Characteristics and problems of working women, impact of globalization on working women.

Unit IV

7. **Constitutional and other legal provisions for women empowerment:**
Legal rights of women, Convention on Elimination of All Forms of Discrimination against Women (CEDAW), Equal Remuneration Act – 1976 (ERA), Medical Termination of Pregnancy Act (MTP Act – 1971), Maternity Benefit Act -1961, National Policy for Women Empowerment – 2001
8. **Role of National Commission for Women, Central Social Welfare Board, State Social Welfare Board for Women Empowerment. Women Property Rights, Women's representation in decision making, Women Reservation Bill, Women and Human Rights.**

*** Guidelines for internal assessment – Refer to scheme of studies**

References:

1. **Goel S.L. 2002. Social Welfare Administration. New Delhi: Deep and Deep Publication**
2. **Sachdeva D.L. 1992. Social Welfare Administration. New Delhi: Kitab Mahal**
3. **Sahay Sushma.1998. Women and Empowerment: Approaches and Strategies. New Delhi: Discovery Publication House.**
4. **Sharma Aradhana. 2010. Paradoxes of Empowerment. New Delhi: Zubaan.**
5. **Srivastava Sushama. 2008. Women's Empowerment. New Delhi: Commonwealth Publishers**
6. **Purushottham Sangeetha. 1998. The Empowerment of Women in India. New Delhi: Sage.**

Women Empowerment (Practical)

Course No. HD117

Credit Hours: 2/week

Duration of Exam: 03 hours

Maximum Marks: 50

Paper: 40

Internal Assessment: 10

Instructions to the Paper Setters

1. Each practical paper will be of three hours duration
2. The question paper should cover the entire syllabus

Objectives:

To sensitize students to various contemporary issues related to women
To develop skills for organizing program/activities for women

Contents

1. To organize workshops/seminars/panel discussion by inviting people from policy, activists and other stake holders.
2. Carry out a case study on woman from broken family/ working women/ women in distress etc.
3. Make a visit to various agencies working for women and prepare the report for the same.
4. Make a display on various topics pertaining to women empowerment.
5. Documenting reports from media related to breach/facilitation of women.

Internal Assessment is based as follows:

Terminal examination :	3 marks
Project work :	3 marks
File :	2 marks
Attendance :	2 marks
Total :	10 marks

References:

1. Goel S.L. 2002. Social Welfare Administration. New Delhi: Deep and Deep Publication
2. Sachdeva D.L. 1992. Social Welfare administration. New Delhi: Kitab Mahal
3. Sahay Sushma.1998. Women and Empowerment: Approaches and Strategies. New Delhi: Discovery Publication House.
4. Sharma Aradhana. 2010. Paradoxes of Empowerment. New Delhi: Zubaan.
5. Srivastava Sushama. 2008. Women's Empowerment. New Delhi: Commonwealth Publishers
6. Purushotham Sangeetha. 1998. The Empowerment of Women in India. New Delhi: Sage.

Syllabus
Human Values

Sr. No	Class	Page No.
1.	B.Sc. (H.Sc) 5 th and 6 th Semester	19-28
2.	B.Sc. (HDFR) 5 th and 6 th Semester	29-36

**B.SC. HOME SCIENCE – DIETETICS
(2020-21) SEMESTER V**

SN O.	PAPER/SUBJECT	CREDIT HOURS			THEORY MARKS			PRACTICAL MARKS			TOTAL
		T	P	TOTAL	PAPER	IN T. AS S.	TOTAL	PAPER	IN T. AS S.	TOTAL	
1.	Nutritional Biochemistry – I (Common to composite and dietetics)	3	2	5	40	10	50	35	15	50	100
2.	Community Nutrition and Public Health- I	3	2	5	40	10	50	35	15	50	100
3.	Institutional Food Service and quality management - I	3	2	5	40	10	50	-	50*	50*	100
4.	Nutritional management in Health and Disease –I (Common to composite and dietetics)	3	2	5	40	10	50	35	15	50	100
5.	Fundamentals of Food Science -I	3	2	5	40	10	50	35	15	50	100
6.	Economics and Entrepreneurship Development –I (Common to all)	2	2	4	40	10	50	25	25	50	100
7.	Extension Education –I (Common to all)	2	2	4	40	10	50	25	25	50	100
	Grand Total			33							700

* Continuous evaluation will be done throughout the year and marks will be awarded. No separate university examination will be conducted

**THEORY
(COMMON TO
ALL)**

Credit hours: 2/week
Exam Hrs.: 3

Maximum Marks: 50
Paper: 40
Internal Assessment : 10

Objectives:

1. To understand the concept of extension and its relevance for self & national development.
2. To appreciate the role of Home Science extension in community development.
3. To sensitize students towards various methods, preparation and selection of suitable materials for effective communication.

Instructions to the paper setter:

1. Each theory paper will be of three hours duration.
2. Question paper will have four units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
3. Student will attempt one question from each unit and the compulsory question (Total of five questions)
4. All questions may carry equal marks, unless specified

UNIT – I

1. Concept of education
 - Formal education
 - Non formal education
 - Informal education

2. Concept of Extension education
 - Meaning and scope of extension
 - Difference between formal education and extension education
 - Extension education process
 - Concept of e-Extension

UNIT – II

3. Principles and philosophy of extension education
 - Principles of extension education
 - Philosophy of extension education
 - Function of extension education
4. Home Science Extension as a discipline and its contribution towards development.

UNIT – III

5. Teaching methods for extension education
 - Concept of extension teaching methods
 - Methods and steps in extension teaching
6. Classification of extension teaching methods
 - According to form and use
 - Advantages and limitations of extension teaching methods

UNIT – IV

7. Audio-visual aids
 - Classification of audio-visual aids
 - Advantages and limitations of various audio visual aids
8. Factors affecting selection and use of extension teaching methods and aids

**PRACTICAL
(COMMON TO
ALL)**

**Credit hours: 2/week
Exam Hrs.: 3**

**Maximum Marks : 50
Paper : 25
Internal Assessment : 25**

Objectives:

1. To prepare the students in developing various teaching methods and aids used in home science extension.
2. To develop the skills of students used in participatory approaches in program planning and evaluation.

Instructions for Paper Setter:

1. Each practical paper will be of 3 hours duration.
2. The question paper should cover the entire syllabus.
3. The file work and viva voce will be of 5 and 10 marks respectively (Total = 15 marks)

Contents:

1. Preparation of non-projected aids-
 - a. Chart/Posters
 - b. Flash cards/Flip book
2. As a traditional media of communication:-
 - a. Preparation of puppets
 - b. Writing stories for puppets.
3. Developing skills and use of following different teaching methods –
 - a. Role play
 - b. Puppet play
4. Visit to a community to study a government or voluntary organization in action.

RECOMMENDED READINGS:

1. Dhama, O.P. Bhatnagar, O.P., Second Edition 1985, Education and Communication for Development, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
2. Dubey V.K. and Bishnoi Indira, First Edition 2008, Extension Education and Communication, New Age International Publishers, New Delhi.
3. Supe S.V., Second Edition 1997, An Introduction to Extension Education, Oxford and IBH Publishing Co. Pvt. Ltd, New Delhi.
4. Ray G.L., Seventh Edition, 2008, Extension Communication and Management, Kalyani Publishers, New Delhi.
5. Desai Vasant, First Edition 1991, Fundamentals of Rural Development, Himalaya Publishing House.
6. Oakley P. and Garforth C. FAO, 1985, Guide to Extension Training.
7. Singh K. Uttam, Nayak A.K., Commonwealth Publishers, 2005, Extension Education.

**B.SC. HOME SCIENCE –
DIETETICS SEMESTER VI
2016-17**

SN O.	PAPER/SUBJECT	CRE DIT HOU RS			THEORY MARKS			PRACTICAL MARKS			TOT AL
		T	P	TOT AL	PAPE R	IN T. AS S.	TOT AL	PAPE R	IN T. AS S.	TOT AL	
1.	Nutritional Biochemistry – II (common to composite and dietetics)	3	2	5	40	10	50	35	15	50	100
2.	Community Nutrition and Public Health- II	3	2	5	40	10	50	35	15	50	100
3.	Institutional Food Service and quality management - II	3	2	5	40	10	50	-	50*	50*	100
4.	Nutritional management in Health and Disease –II (common to composite and dietetics)	3	2	5	40	10	50	35	15	50	100
5.	Fundamentals of Food Science -II	3	2	5	40	10	50	35	15	50	100
6.	Economics and Entrepreneurship Development –II (Common to all)	2	2	4	40	10	50	25	25	50	100
7.	Extension Education –II (Common to all)	2	2	4	40	10	50	25	25	50	100
	Grand Total			33							700

* Continuous evaluation will be done throughout the year and marks will be awarded. No separate university examination will be conducted.

B.Sc. Home Science Dietetics (Semester VI)
Economics and Entrepreneurship Development-II

EXTENSION EDUCATION-II
THEORY
(COMMON TO ALL)

Credit hours: 2/week
Exam Hrs.: 3

Maximum Marks : 50
Paper : 40
Internal Assessment : 10

Objectives:

1. To understand the concept of extension and its relevance for self & national development.
2. To appreciate the role of Home Science extension in community development.
3. To create awareness about rural development and various programs and agencies involved in it.

Instructions to the paper setter:

1. Each theory paper will be of three hours duration.
2. Question paper will have four units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
3. Student will attempt one question from each unit and the compulsory question (Total of five questions)
4. All questions may carry equal marks, unless specified.

UNIT – I

1. Rural development
 - γ Concept of rural development
 - γ Role of extension workers in rural development
 - γ Qualities of extension worker
2. Rural Development Programmes in India
 - γ Integrated Child Development Service (ICDS)
 - γ Integrated Rural Development Programme (IRDP)
 - γ Mahatma Gandhi National Rural Employment Guarantee Act(MGNREGA)

UNIT – II

3. Community development
 - γ Concept and origin of community development
 - γ Basic features of community development

- γ Philosophy of community development

- 4. Introduction to Panchayati Raj-
 - γ Concept of three tier system of administration
 - γ Evolution of panchayati Raj
 - γ Meaning of democratic decentralization

UNIT – III

- 5. Extension programme
 - γ Concept of extension programme.
 - γ Characteristics of a good extension programme.

- 6. Participation in extension programme
 - γ Advantages of people's participation in extension programme
 - γ Reasons for non-participation of people
 - γ Levels of participation

UNIT – IV

- 7. Extension programme planning
 - γ Concept of extension programme planning
 - γ Principles of extension programme planning

- 8. Process of Extension Programme Planning-Collect facts, analyse situation, identifying problems,decide objectives, develop plan of work, execute plan, evaluation of progress , reconsideration

EXTENSION EDUCATION-II
(PRACTICAL)
(COMMON TO ALL)

Credit hours: 2/week
Exam Hrs. : 3

Maximum Marks: 50
Paper : 25
Internal Assessment:25

Objectives:

1. To enable the students to carry out their social responsibility by extending their knowledge and services to the people in need.
2. To develop skills in the use of participatory approaches in programme planning and evaluation.

Instructions for Paper Setter:

1. Each practical paper will be of 3 hours duration.
2. The question paper should cover the entire syllabus.
3. The file work and viva voice will be of 5 and 10 marks respectively (Total = 15 marks)

Contents:

1. Survey of a specific community for need assessment.
2. Presentation of planning and organization of a need based extension programme for the selected community in relation to anyone of the following aspects:-
 - a. Literacy
 - b. Income Generation
 - c. Health
 - d. Social Evil
3. Conduct an extension or outreach activity in a selected community.
4. Evaluation of the above extension or outreach activity conducted.

RECOMMENDED READINGS:

8. Dhama, O.P. Bhatnagar, O.P., Second Edition 1985, Education and Communication for Development, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
9. Dubey V.K. and Bishnoi Indira, First Edition 2008, Extension Education and Communication, New Age International Publishers, New Delhi.
10. Supe S.V., Second Edition 1997, An Introduction to Extension Education, Oxford and IBH Publishing Co.Pvt.Ltd, New Delhi.
11. Ray G.L., Seventh Edition, 2008, Extension Communication and Management, Kalyani Publishers, New Delhi.
12. Desai Vasant, First Edition 1991, Fundamentals of Rural Development, Himalaya Publishing Henge.
13. Oakley P. and Garforth C. FAO, 1985, Guide to Extension Training.
14. Singh K. Uttam, Nayak A.K., Commonwealth Publishers, 2005, Extension Education.

B.Sc. Home Science (Human Development) , 2022-23
(Semester-V)

S. No.	Paper/ Subject	Credit hrs			Theory Marks			Practical Marks			Total
		Courses	T	P	Total	Paper	Int.	Total	Paper	Int.	
1	Introduction to Theories of Human Development-I	3	-	3	40	10	50	-	-	-	50
2	Children with Special Needs-I	3	2	5	40	10	50	40	10	50	100
3	Development in Adolescence (Common to composite and HDFR)	3	2	5	40	10	50	40	10	50	100
4	Introduction to Guidance and Counselling	3	3	6	40	10	50	50	25	75	125
5	Children at Risk	3	3	6	40	10	50	50	25	75	125
6	Economics & Entrepreneurship Development-I (Common to all)	2	2	4	40	10	50	25	25	50	100
7	Extension Education-I (Common to all)	2	2	4	40	10	50	25	25	50	100
				33							700

B.Sc. Home Science (Human Development)

(Semester-V)

Children with Special Needs-I

(Theory)

Credit hrs: 3/week

ExamHrs.: 3

Maximum marks: 50

Internal Assessment :10

Paper :40

Objectives:

- To acquaint students with meaning and nature of children with special needs.
- To generate awareness related to conceptual framework in special education.
- To familiarize students with problems of parents and children with special needs.

Instructions for Paper Setter:

1. Each theory paper will be of three hours duration.
2. Question paper will have four sections.
3. A total of nine questions comprising of two questions from each unit and one compulsory question of short answer type covering the whole syllabus will be set.
4. All questions may carry equal marks unless specified.
5. Students will be expected to attempt one question from each unit and the compulsory question.

Contents:

UNIT I

1. Meaning of children with special needs.
2. Types of exceptional children.

UNIT II

3. Concept of special education.
4. Introduction to various types of educational services e.g. Residential, Special day schools, Special classes, Integration, Mainstreaming and Inclusion.

UNIT III

5. Problems of children with special needs.

UNIT IV

6. Problems of parents having children with special needs.

References:

Mangal, S.K. (2012). Educating exceptional children: An introduction to special education. New Delhi: PHI Learning Pvt. Ltd.

Panda, K.C. (2001). The education of the exceptional child. New Delhi: Vikas Publications.

Reynolds, R., & Mann (1987). Encyclopedia of special education. New York: John Wiley & Sons.

Carson, R.C., Butcher, J.N., & Mineka, S. (2007). Abnormal psychology and modern life (11th ed.). New Delhi: Dorling Kindersley (India) Pvt. Ltd.

B.Sc. Home Science (Human Development)

(Semester-V)

Children with Special Needs-I

(Practical)

Credit hrs: 2/week

Exam Hrs. : 3

Maximum marks : 50

Internal Assessment :10

Paper :40

Objectives:

To create awareness about nature and rehabilitation of children with special needs.

To develop skills of dealing with children with special need.

Instructions for Paper Setter:

1. Each practical paper will be of 3 hours duration.
2. The question paper should cover the entire syllabus.
3. The file work and viva voice will be of 5 marks each (Total = 10 marks)

Content:

1. Prepare a display related to the nature/identification/causes/treatment/assistive devices for children with special needs.
2. Survey five families having children with special needs and prepare a report of their experiences in parenting such children.
3. Visit any three institutions working for children with special needs and prepare a critical report of the same.
4. Prepare a booklet with samples of work done by children with special needs.
5. Plan and conduct ten recreational activities for children with any one kind of impairment.

References:

Mangal, S.K. (2012). Educating exceptional children: An introduction to special education. New Delhi: PHI Learning Pvt. Ltd.

Panda, K.C. (2001). The education of the exceptional child. New Delhi: Vikas Publications.

Reynolds, R., & Mann (1987). Encyclopedia of special education. New York: John Wiley &

Sons.

Carson, R.C., Butcher, J.N., & Mineka, S. (2007). Abnormal psychology and modern life (11th ed.). New Delhi: Dorling Kindersley (India) Pvt. Ltd.

B.Sc. Home Science (Human Development)
Semester-VI

S. No.	Paper/ Subject Courses	Credit Hours			Theory Marks			Practical Marks			Total
		T	P	Total	Paper	Int.	Total	Paper	Int	Total	
1	Introduction to Theories of Human Development-II	3	-	3	40	10	50	-	-	-	50
2	Children with Special Needs-II	3	2	5	40	10	50	40	10	50	100
3	Development in Early and Late Adulthood (Common to composite and HDFR)	3	2	5	40	10	50	40	10	50	100
4	Marriage and Family	3	3	6	40	10	50	50	25	75	125
5	Old Age	3	3	6	40	10	50	50	25	75	125
6	Economics & Entrepreneurship Development-II (Common to all)	2	2	4	40	10	50	25	25	50	100
7	Extension Education-II (Common to all)	2	2	4	40	10	50	25	25	50	100
				33							700

B.Sc. Home Science (Human Development)

(Semester-VI)

Children with Special Needs-II

(Theory)

Credit hrs: 3/week

Exam Hrs.: 3

Maximum marks: 50

Internal Assessment:10

Paper:40

Objectives:

- To provide basic understanding of policies and programs for special children.
- To generate awareness related to conceptual framework in special education.
- To generate awareness related to counselling needs of special children.
- To generate awareness related to rehabilitation of special children.

Instructions for Paper Setter:

1. Each theory paper will be of three hours duration.
2. Question paper will have four sections.
3. A total of nine questions comprising of two questions from each unit and one compulsory question of short answer type covering the whole syllabus will be set.
4. All questions may carry equal marks unless specified.
5. Students will be expected to attempt one question from each unit and the compulsory question.

Contents:

UNIT I

1. Needs and rights of children with special needs.
2. Policies and programs for special children.

UNIT II

3. Physical barriers faced by children with special needs and ways to overcome them.
4. Social barriers faced by children with special needs and ways to overcome them.

UNIT III

5. Assistive devices for children with special needs.

UNIT IV

6. Counselling needs of special children
7. Rehabilitation of special children.

References:

Mangal, S.K. (2012). Educating exceptional children: An introduction to special education. New Delhi: PHI Learning Pvt. Ltd.

Panda, K.C. (2001). The education of the exceptional child. New Delhi: Vikas Publications.

Reynolds, R., & Mann (1987). Encyclopedia of special education. New York: John Wiley & Sons.

Carson, R.C., Butcher, J.N., & Mineka, S. (2007). Abnormal psychology and modern life (11th ed.). New Delhi: Dorling Kindersley (India) Pvt. Ltd.

B.Sc. Home Science (Human Development)
(Semester-VI)
Children with Special Needs-II
(Practical)

Credit hrs: 2/week
Exam Hrs.: 3

Maximum marks: 50
Internal Assessment: 10
Paper: 40

Objectives

- To provide basic understanding of special education.
- To generate awareness related to conceptual framework in special education.
- To generate awareness related to the needs and rights of special children

Instructions for Paper Setter:

1. Each practical paper will be of 3 hours duration.
2. The question paper should cover the entire syllabus.
3. The file work and viva voice will be of 5 marks each (Total = 10 marks).

Contents:

1. Carry out a case study of a child with any impairment.
2. Prepare and present a report on welfare schemes being run by Government and Non-Government Organizations related to children with special needs in your city.
3. Interview any special teacher and get her feedback on methods and materials used by her and problems faced with such children. Prepare a report of the same.
4. Prepare a display on current issues related to children with special needs.

References:

- Mangal, S.K. (2012). Educating exceptional children: An introduction to special education. New Delhi: PHI Learning Pvt. Ltd.
- Panda, K.C. (2001). The education of the exceptional child. New Delhi: Vikas Publications.
- Reynolds, R., & Mann (1987). Encyclopedia of special education. New York: John Wiley & Sons.
- Carson, R.C., Butcher, J.N., & Mineka, S. (2007). Abnormal psychology and modern life (11th ed.). New Delhi: Dorling Kindersley (India) Pvt. Ltd.

Syllabus
Sustainability and Environment

Sr. No	Class	Page No.
1.	B.Sc. (H.Sc) (Common to All Streams) 1 st & 2 nd Semester	38-45
2.	B.Sc. (H.Sc) (IDRM)5 th Semester	46-49
3.	B.Sc. (H.Sc) (IDRM)6 th Semester	50-56
4.	M.Sc. (C&T)3 rd Semester	57-59
5.	M.Sc. (FN) 4 th Semester	60-62
6.	M.Sc. (FN) 1 st & 2 nd Semester	63-69
7.	Post Graduate Diploma in Nutrition & Dietetics	70-78

B.Sc. Home Science – 1st Semester
(Common to all Streams)

Sr. No.	Paper/ Subject	Credit Hours			Theory Marks			Practical Marks			Total
		T	P	Total	Paper	Int. Ass	Total	Paper	Int. Ass.	Total	
1	English Language And Communication Skills	2+2(C)	-	4	90	10	100	-	-	-	100
2	Introduction to Foods & Nutrition -I	2	2	4	45	5	50	40	10	50	100
3	Introduction to Human Development -I	2	2	4	45	5	50	40	10	50	100
4	Introduction to Interior Design & Resource Management -I	2	2	4	45	5	50	40	10	50	100
5	Introduction to Clothing and Textiles -I	2	2	4	45	5	50	40	10	50	100
6	Applied Botany - I	2	2	4	45	5	50	40	10	50	100
7	Applied Zoology -I	2	2	4	45	5	50	40	10	50	100
8	Basics of Computer	-	2	2	-	-	-	40	10	50	50
9*	Environment, Road Safety Education, Violence Against Women And Children and Drug Abuse	2	-	-	-	-	-	-	-	-	-
10	Physical Education/ Music/Dance	-	2	2	-	-	-	Satisfactory/ Unsatisfactory S/US			-
	TOTAL			32							750

*The syllabus and marks will be as per Panjab University norms

Recommended Readings:

1. Berk, L.E (1996). Child Development. New Delhi: Prentice Hall.
2. Craig, G. (1999). Human Development. NJ: Prentice Hall.
3. Cole, M., & Cole, S. (1995). The Development of Children. NY: Freeman & Co.
4. Dacey, J.S. & Travers, J.F. (2002). Human Development across the life span, McGraw Hill, New York.
5. Papalia, Diane E. (1978). Human Development, N.Y.: McGraw Hills Book Company.
6. Santrock, J.W. (2007). Life Span Development. Tata McGraw Hill, New Delhi.

INTRODUCTION TO INTERIOR DESIGN & RESOURCE MANAGEMENT-I

(THEORY)

Maximum Marks: 50

Paper - 45

Internal Assessment - 05

Credit Hours: 2 /week

Duration of Exam: 3 hours

Instructions to the Examiner

Question paper will have four sections. Examiner will set a total of nine questions comprising of two questions from each unit, and one compulsory question of short answer type covering the whole syllabus. Student will attempt one question from each unit and the compulsory question. All questions may carry equal marks, unless specified.

Objectives

1. To understand the fundamentals of interior design & resource management in changing scenario.
2. To recognize the importance of process of management in family life.
3. To recognise the contribution of motivation forces and decision making in management process.
4. To understand the elements and principles of design and their application in home interiors.

UNIT -I

1. Meaning & Process of management -
Planning, Organizing, Controlling and Evaluation
2. Decision Making Process – meaning and steps in Decision Making
Process

UNIT-II

3. Types of decisions, Factors affecting Decision Making Process
4. Motivating factors in Management -Values, Goals and Standards

UNIT-III

5. Meaning & Importance of Interior design, Role of Interior Designer
6. Career options in Interior Design Management

UNIT-IV

7. Elements of Interior Design – Line, form and shape, colour, texture,
pattern and their application in Interiors.
8. Principles of Interior Design – Balance, rhythm, harmony,
proportion, emphasis and their application in Interiors.

B.Sc. (Home Science) First Semester

INTRODUCTION TO INTERIOR DESIGN & RESOURCE MANAGEMENT-I

(PRACTICAL)

Maximum Marks: 50

Paper – 40

Internal Assessment - 10

Credit Hours: 2 /week

Duration of Exam: 3 hours

1. Cleaning of different household articles – Brass, Silver, Glass, Plastic,
wood
2. Floor decoration – Alpana & Rangoli
3. Goal identification –List down your different types of goals - long term,
short term and means - end goals.

4. Making a scrap book comprising of pictures depicting elements and principles of art used in interior
5. To plan, organise and execute an event - Birthday/ Festival/ Institutional/ cultural/ Fashion Show.
 - a) Identification of its goal/event and objectives
 - b) Preparing proposal – time schedule, list of invitees, planning for menu
 - c) Planning of resources
 - d) Planning for invitation and decoration
 - e) Budget planning
 - f) Executing an event
 - g) Event evaluation and reporting

Recommended Readings

1. Gross. L. H. and Crandal.E.W.,1967,. Management for Modern Families. Appleton Centurion Crafts, New York.
2. Gupta.S., Garg.N. and Aggarwal.A2004. A Text Book of Family Resources Management , Hygiene and Physiology, Kalyani Publishers, New Delhi,
3. Kaur.H., and Macnell., 1994. Theory and Practice of Home Management. Surjeet Publishers. New Delhi.
4. Mann.K.2004, Home Management for Indian Homes. Kalyani Publishers, New Delhi.
5. Nickell.P. and Dorsey. M.J. 2002 Management in Family Living 4th Edition. CBS Publishers
6. Rao. M. P. 2012 Interior Design - Principles and Practice, Standard Publisher Distributor, Delhi.
7. Randhawa R. 2012. Text Book of Family Resource Management and Health Science, New light Publishers, Jalandhar.
8. Seetharaman P; Batra S. and Mehra P 2005. An Introduction to Family Resource Management. CBS Publishers and distributors, New Delhi
9. Seetharaman P. and Pannu P. 2012. Interior Design and Decoration. CBS Publishers and Distributors, New Delhi
10. The Educational Planning group Delhi. Home Management 1987. Arya Publishing House, New Delhi
11. Varghese A.M; Ogale N.N and Srinivasan K. 2006. Home Management. New Age International Pvt. Ltd Publishers, New Delhi.
12. Veena G. and et. all Introduction to Interior Design & Decoration, Dominant Publishers and Distributors, New Delhi.

B.Sc. Home Science – 2nd Semester
(Common to all Streams)

Sr. No.	Paper/ Subject	Credit Hours			Theory Marks			Practical Marks			Total
		T	P	Total	Paper	Int. Ass.	Total	Paper	Int. Ass.	Total	
1	English Language And Communication Skills	2+2(C)	-	4	90	10	100	-	-	-	100
2	Introduction to Foods & Nutrition -II	2	2	4	45	5	50	40	10	50	100
3	Introduction to Human Development-II	2	2	4	45	5	50	40	10	50	100
4	Introduction to Interior Design & Resource Management -II	2	2	4	45	5	50	40	10	50	100
5	Introduction to Clothing and Textiles -II	2	2	4	45	5	50	40	10	50	100
6	Applied Botany - II	2	2	4	45	5	50	40	10	50	100
7	Applied Zoology -II	2	2	4	45	5	50	40	10	50	100
8	Computer Applications	-	2	2	-	-	-	40	10	50	50
9*	Environment, Road Safety Education And Violence Against Women And Children	2	-	-	-	-	-	-	-	-	-
10	Physical Education/Music/ Dance	-	2	2	-	-	-	Satisfactory/ Unsatisfactory S/US			-
	TOTAL			32							750

*The syllabus and marks will be as per Panjab University norms

Recommended Readings:

1. Berk, L.E (1996). Child Development. New Delhi: Prentice Hall.
2. Craig, G. (1999). Human Development. NJ: Prentice Hall.
3. Cole, M., & Cole, S. (1995). The Development of Children. NY: Freeman & Co.
4. Dacey, J.S. & Travels, J.F. (2002). Human Development across the life span, Mc Graw Hill, New York.
5. Papalia, Daine E. (1978). Human Development, NY: Mc Graw Hill Book Company.
6. Santrock, J.W. (2007). Life Span Development. Tata McGraw Hill, New Delhi.

B.Sc. (Home Science) Second Semester

INTRODUCTION TO INTERIOR DESIGN & RESOURCE MANAGEMENT-II

(THEORY)

Maximum Marks: 50

Paper - 45

Internal Assessment - 05

Credit Hours: 2 /week

Duration of Exam: 3 hours

Instructions to the Examiner

Question paper will have four sections. Examiner will set a total of nine questions comprising of two questions from each unit, and one compulsory question of short answer type covering the whole syllabus. Student will attempt one question from each unit and the compulsory question. All questions may carry equal marks, unless specified.

Objectives

1. To understand the fundamentals of interior design & resource management in changing scenario.
2. To recognize the importance of resources and maximizing & conserving their use in order to achieve goals.
3. To understand the elements and principles of design and their application in home interiors.
4. To understand the importance of colour in interiors.

UNIT-I

1. Meaning & Classification of resources – Human, Non-human and Shared resources
2. Factors affecting the use of resources

UNIT-II

3. Money- Types of income, steps in budget planning, advantages and limitations of budget planning.
4. Time - Steps in time plan, tools in time management

UNIT-III

5. Energy- Classification of efforts used in homemaking activities and Fatigue
6. Work simplification - Its meaning and principles of work simplification.

UNIT-IV

7. Colour – classification of colours & properties of colour, colour wheel.
8. Colour schemes and Emotional effects of colours

B.Sc. (Home Science) Second Semester

INTRODUCTION TO INTERIOR DESIGN & RESOURCE MANAGEMENT-II

(PRACTICAL)

Maximum Marks: 50

Paper – 40

Internal Assessment - 10

Credit Hours: 2 /week

Duration of Exam: 3 hours

1. Table setting for different meals
Table manners and Napkin folding
2. Budget planning for different income groups

3. Making of colour wheel
 - a) Showing primary, secondary and tertiary colours
 - b) Properties of Colours - Value, Intensity, Warm colours & Cool colours
 - c) Showing different colours scheme
4. Making a scrap book comprising of pictures depicting different colour schemes and analysing

Recommended Readings

1. Gross. L. H. and Crandal.E.W.,1967,. Management for Modern Families. Appleton Centurion Crafts, New York.
2. Gupta.S., Garg.N. and Aggarwal.A2004. A Text Book of Family Resources Management , Hygiene and Physiology, Kalyani Publishers, New Delhi,
3. Kaur.H., and Macnell., 1994. Theory and Practice of Home Management. Surjeet Publishers. New Delhi.
4. Mann.K.2004, Home Management for Indian Homes. Kalyani Publishers, New Delhi.
5. Nickell.P. and Dorsey. M.J. 2002 Management in Family Living 4th Edition. CBS Publishers
6. Rao. M. P. 2012 Interior Design - Principles and Practice, Standard Publisher Distributor, Delhi.
7. Randhawa R. 2012. Text Book of Family Resource Management and Health Scince, New light Publishers, Jalandhar.
8. Seetharaman P; Batra S. and Mehra P 2005. An Introduction to Family Resource Management. CBS Publishers and distributors, New Delhi
9. Seetharaman P. and Pannu P. 2012. Interior Design and Decoration. CBS Publishers and Distributors, New Delhi
10. The Educational Planning group Delhi. Home Management 1987. Arya Publishing House, New Delhi
11. Varghese A.M; Ogale N.N and Srinivasan K. 2006. Home Management. New Age International Pvt. Ltd Publishers, New Delhi.
12. Veena G. and et. all Introduction to Interior Design & Decoration, Dominant Publishers and Distributors, New Delhi.

B. Sc. Home Science Interior Design & Resource Management (IDRM)

(Semester- V)

BUILDING MATERIALS AND CONSTRUCTION TECHNIQUES – I

(THEORY)

Credit hrs : 2 / week

Exam hrs : 3

Maximum Marks : 50

Paper : 40

Internal Assessment: 10

OBJECTIVES

- To enable the students to make use of various types of building materials in designing & planning of various design projects.
- To enable the students to execute construction work in various design projects.

Instructions to Examiner

1. Each theory paper will be of three hours duration.
2. Questions paper will have four units.
3. A total of nine questions comprising of two questions from each unit and one compulsory questions of short answer type covering the whole syllabus will be set.
4. All questions may carry equal marks unless specified.
5. Students will be expected to attempt one question from each unit and the compulsory question.

UNIT-I

- Concrete – Types, Properties and uses.
- Cement – Types, Properties & uses.

UNIT-II

- Brick Masonary, Types of Bonds and Types of Brick Walls, Decorative brick work in interiors.
- Bricks/Tiles- Types, Properties and uses in interior & exterior.

UNIT-III

- Stones - Types, Properties and uses in interior & exterior.

UNIT-IV

- Timber and Plastic: Timber, Types, Properties, uses, seasoning and defects.
- Timber Based Products: Comparative properties and uses of the commercial plywood, block board, particle board, teak ply board, laminates etc

REFERENCES

1. Callender, J.H. Time saver standards for architectural Design Data. McGraw Hill Publishing Co. New York.
2. Kumar, S.Varghese and Saluja,K. Building Construction, Standard Publishers Distributers, Delhi.
3. Sushil Kumar. Building Construction 20th Edition, standard publishers distribution, New Delhi
4. Susan M Winchip (2008) Fundamentals of light, Fairchild publications
5. Pratap R.M (1988) Interior Design Principles and Practice, standard publishers distribution, New Delhi
6. Project Management by S. Chaudhury. Publisher: McGraw Hill Education (India) Private Limited
7. Punmia B.C. 2008," Building Construction", laxmi publication Pvt. Ltd. New Delhi

B. Sc. Home Science Interior Design & Resource Management (IDRM)

(Semester- V)

BUILDING MATERIALS AND CONSTRUCTION TECHNIQUES – I

(PRACTICAL)

Credit hrs : 2 / week

Exam hrs : 3

Maximum Marks : 50

Paper : 25

Internal Assessment: 25

Objectives:

An interior designer is supposed to make use of various types of materials for conceptualizing, designing and executions of interior design projects.

1. Masonry:

Brick masonry: brick bonds – Zig-Zag & Diagonal

Stone masonry: Ashlar and Rubble

2. Openings:

a) Arches: Types and techniques of construction

Lintels: types and techniques of construction

b) Doors: Door frame and Types of doors with sectional details

c) Windows: Types of windows with sectional details

Ex: Design a door and window of for a given area

B. Sc. Home Science Interior Design & Resource Management (IDRM)

(Semester- VI)

BUILDING MATERIALS AND CONSTRUCTION TECHNIQUES – II

(THEORY)

Credit hrs : 3 / week

Exam hrs : 3

Maximum Marks : 50

Paper : 40

Internal Assessment: 10

OBJECTIVES

- To enable the students to make use of various types of building materials in designing & planning of various design projects.
- To enable the students to execute construction work in various design projects.

Instructions to Examiner

1. Each theory paper will be of three hours duration.
2. Questions paper will have four units.
3. A total of nine questions comprising of two questions from each unit and one compulsory questions of short answer type covering the whole syllabus will be set.
4. All questions may carry equal marks unless specified.
5. Students will be expected to attempt one question from each unit and the compulsory question.

UNIT-I Flooring

- Interior floors- Mud, brick, cement, terrazzo, wood, metals, resilient flooring, Hard and soft, mosaic, tiles, marble, granite, vitrified, their properties and uses
- Floor coverings-rugs and carpets, selection, laying, cost estimation, care and maintenance.

UNIT-II Roofs and ceilings

- Types: flat and pitched roofs, treatment-plastering, plaster of Paris, PVC, wooden, glass etc

UNIT-III Metals, glass & Plastic

- Metals – types of metals, properties and uses in building construction
- Glass: types of glass, properties and uses.
- Use of Plastic and PVC in interior and construction technology

UNIT-IV Painting and plastering

- Paints, types of paints, characteristics of ideal paint, defects in paintings, varnishes polishes, distempers, white wash, painting techniques.

- Plastering- types of plaster, defects in plaster, its repairs, curing and finishes.

REFERENCES

1. Callender, J.H. Time saver standards for architectural Design Data. McGraw Hill Publishing Co. New York.
2. Kumar, S.Varghese and Saluja,K. Building Construction, Standard Publishers Distributers, Delhi.
3. Sushil Kumar. Building Construction 20th Edition, standard publishers distribution, New Delhi
4. Susan M Winchip (2008) Fundamentals of light, Fairchild publications
5. Pratap R.M (1988) Interior Design Principles and Practice, standard publishers distribution, New Delhi
6. Project Management by S. Chaudhury. Publisher: McGraw Hill Education (India) Private Limited
7. Punmia B.C. 2008,” Building Construction”, laxmi publication Pvt. Ltd. New Delhi

B. Sc. Home Science Interior Design & Resource Management (IDRM)

(Semester- VI)

BUILDING MATERIALS AND CONSTRUCTION TECHNIQUES – II

(PRACTICAL)

Credit hrs : 2 / week

Exam hrs : 3

Maximum Marks : 50

Paper : 25

Internal Assessment: 25

1. Floorings and stairs

Types of flooring and their construction details

Ex: Design flooring for given space

Ceilings

False Ceiling: Types: pop, Gypsum board and ordinary boards with plan and sectional details

Ex: Design false ceiling for a given area

3. Panelling and partitions

Types of panelling with their constructional details

Types of partition with their constructional details

Ex: Design panelling for a wall and a partition for a given area

B. Sc. Home Science Interior Design & Resource Management (IDRM)

(Semester- VI)

SUSTAINABLE BUILDINGS

(THEORY)

Credit hrs : 2 / week

Exam hrs : 3

Maximum Marks : 50

Paper : 40

Internal Assessment: 10

OBJECTIVES:-

- To provide knowledge to the students about the concept & importance of sustainable buildings.
- To enable the students to use sustainable building materials in design projects.
- On successful completion of the course the students should have understood the importance of green building technology.
- Acquired knowledge in recent green building materials and to trap rain water

Instructions to the examiner-

1. Each theory paper will be of three hours duration.
2. Questions paper will have four units.
3. A total of Nine questions comprising of two questions from each unit and one compulsory question of short answer type covering the whole syllabus will be set.
4. All questions may carry equal marks unless specified.
5. Students will be expected to attempt one question from each unit and the compulsory question.

UNIT- I

- Sustainable buildings –Introduction, Concept, Importance and Benefits.

UNIT - II

- Principles of Sustainable design - Economy of Resources/ Resource conservation, Life Cycle Design, Humane Design.

UNIT- III

- Methods of achieving sustainable designs – Methods of conserving resources i.e. energy, water & material, Use of sustainable building construction material, Planning & designing sustainable buildings.

UNIT -IV

- Indian Green building Council - Green building rating system in India

References

- Jong-Jin Kim, 1998, “Sustainable architecture module: Qualities, Use, & Examples of Sustainable Buildings Materials”, National Pollution Prevention Center for Higher Education
- Charles J kibert (2013) “Sustainable Construction: Green building design & delivery”, Hoboken, N.J, John Wiley & Sons.
- Despande, R.S, (1974), “Build your own Home”, United book corporation, Poona.

B. Sc. Home Science Interior Design & Resource Management (IDRM)

(Semester- VI)

SUSTAINABLE BUILDINGS

(PRACTICAL)

Credit hrs : 2 / week

Exam hrs : 3

Maximum Marks : 50

Paper : 25

Internal Assessment: 25

Practical

- Make logos used for Green building concept
- Design a logo on Green Building concept
- Make a utility / decorative article out of waste.
- Make a list of the articles which can be reused, recycled & reduced
- Visit to sustainable buildings & make presentation.
- Display on sustainable building concept.

M.Sc. (Clothing and Textiles)
SEMESTER-III

Code	Paper/ Subject	Credit Hours			Theory Marks			Practical Marks			Total
		Th.	Pr.	Total	Paper	Int. Ass	Total	Paper	Int. Ass	Total	
	Courses										
1	Product Development	-	02	02	-	-	-	-	50	50	50 #
2	Dyeing and Finishing	03	03	06	65	10	75	60	15	75	150
3	Textile Designing	02	04	06	45	05	50	80	20	100	150
4	Costume Designing and Construction	-	03	03	-	-	-	60	15	75	75
5	Historic Costumes	03	-	03	65	10	75	-	-	-	75
6	Dissertation	-	02	02	-	-	-	-	-	50	50 **
	TOTAL	08	14	22							550

No university examination. Continuous evaluation done internally throughout the semester.

** Marks will be awarded by the supervisor internally on the basis of data collection/ continuous evaluation.

SEMESTER-IV

Code	Paper/ Subject	Credit Hours			Theory Marks			Practical Marks			Total
		Th.	Pr.	Total	Paper	Int. Ass	Total	Paper	Int. Ass	Total	
	Courses										
1	C.A.D.	-	04	04	-	-	-	80	20	100	100
2	Image Styling	-	02	02	-	-	-	-	50	50	50
3	Fashion Retailing and Merchandising	03	02	05	65	10	75	-	50	50	125
4	Dissertation	-	04	04	-	-	-	100	-	100	100
	TOTAL	03	12	15							375
GRAND TOTAL		25	55	80							2000

Note: Industrial Training of Six weeks in an Export House/ Readymade Garment Industrial Unit/ Textile Industry.

RECOMMENDED READINGS

1. **Costume & Fashion – A Complete History** by Bronwyn Cosgrave, Octopus Publishing Group Ltd., 2000, London.
2. **Design Ideas & Accessories** by Ritu Bhargau, B.Jain Publishers Pvt. Ltd., New Delhi.
3. **Young Fashion Designers-** Marta R. Hidalgo Taschen, China
4. **History of Internation Fashion-** Didier Grumbach, Roli Books Pvt. Ltd., G.K.-II, New Delhi
5. **Fashion Print- Design-** Angel Fernandez, A&C Black Publishers, London, 2009.
6. **Fashion by Design-** Jenice Greenberg Ellinwood, Fairchild Books, 2011. Conde Nast Publications
7. **Fashion- A History from the 18th -20th Century**, Tascen- Hon Kong, Vol-I & Vol-II
8. **Inside Fashion Design-** Sharon Lee Tate., Confield Press San Francisco, Harper & Row Publishers, New York.
9. **100- Contemporary Fashion Designers**, Taschen- Hong Kong.
10. **Creativity in Fashion Design-** Tracy Jennings, Faischild Books, Conde Nast Publications, 2011
11. **The Desgin Process-** Karl Aspelund Fairchild Books New York, Conde Nast Publications, 2010.
12. **The Complete Fashion Source Book**, John Peacock, Thames & Hudson Ltd., 2005
13. **Fashion – The Ultimate book of Costume and Style**, Darling Kinderley Ltd., 2012
14. **Costume & Fashion-** Jack Cassin Scott, Brockampton Press, London, 1998
15. **Costumes & Textiles of Royal India**, Ritu Kumar- Chisties Books.

M.Sc. (Clothing and Textiles)

Third Semester

HISTORIC COSTUMES

(THEORY)

Credit hrs: 3 hrs/week
Duration of Exam: 3hrs

Total Marks: 75
Paper: 65
Int . Ass.: 10

Objectives:

1. To study the costumes in the ancient world.
2. To know about the conservation of costumes and textiles
3. To become familiar with the styles and special features in costume from ancient world. Instructions for paper setters:

1. There will be total nine questions carrying equal marks
2. Two questions will be set from each unit and one compulsory question carrying short answer type questions from the whole syllabus
3. Five questions will be attempted in all, selecting one question from each section and the compulsory question.

Study of the costumes including male and female dresses, ornaments, headgear, hairstyles and footwear worn during following periods in Unit I, II and III.

Unit-I

Egypt
Greece

- Rome
- Byzantine

Unit-II

- Middle ages
- Renaissance Period

Unit-III

- French Revolution
- Romantic Period
- Victorian Period

Unit-IV

Conservation of Costumes and Textiles

- Introduction and need of costumes and textile conservation
 - Materials used in conservation of costumes and textiles
 - Mending techniques used in conservation of costumes textiles : Adhesive, Stitching and Mounting
 - Display and Storage : Care and Handling of costumes and textiles
- Assignments and Presentation of Ancient Indian Costumes
 - A visit to Museum and submission of report.

Recommended Readings:

1. Biswas, A. "Indian Costumes". Publication Division. (2003).
2. Pathak, Anamika "Indian Costumes". Lustre press, Roli books. (2006)
3. Racinet, A. "The historical Encyclopedia of Costumes", Studio editions, England.(1988).
4. Bradley, Carolyn G., "Western World Costume", British Commonwealth. (1955)
5. Cosgrave B. (2000), "Costume & Fashion- A complete history", octopus publishing group Ltd.
6. Laver, James "The concise history of Costume & Fashion", Harry N. Abrams, Inc. Publishers, New York.
7. Black, J. Anderson and Garland, Madge. "A History of Fashion", Orbis Publishing, London. (1975)
8. Arnold, J. "A handbook of Costume". Macmillan.(1973)
9. Parey, L. "The Victoria and Albert Museum's Textiles Collection British Textiles from 1850 to 1900", V and A Publications.
10. Davenport, Millia. "The book of costume", Vol I, Crown Publishers, New York,(1962)
11. Bhatnaga, P. "Traditional Indian Costumes and Textiles" Abhishek Publications(2004)
12. Planche, J.R.. "History of British Costumes", Johnson's Canons, Wilkin's Concilia. (2001)
13. Kumar. Ritu, "Costumes and Textiles of Royal India". Christies Book Ltd., London. (1999)
14. Alkazi. Roshan, "Ancient Indian Costumes" Art heritage, New Delhi. (2006)
15. Dar, S.N. "Costumes of India & Pakistan: A historical and cultural study", Taraporevala sons & Comp. Pvt. Ltd., Bombay (1961).

SEMESTER IV

4th Semester Exam.

CODE	SUBJECT	CREDIT HOURS			THEORY MARKS			PRACTICAL MARKS			TOTAL
		T	P	TOTAL	PAPER	INT.	TOTAL	PAPER	INT.	TOTAL	
1	Principles of Food Science	3	2	5	65	10	75	40	10	50	125
2	Entrepreneurial Ventures in Food Industry	2	2	4	45	05	50	40	10	50	100
3	Alternative Medicines and Nutrition	2	-	2	45	05	50	-	-	-	50
4	Dissertation	-	4	4	-	-	-	-	100	100	100
	TOTAL	7	8	15							375

ALTERNATIVE MEDICINE AND NUTRITION

(THEORY)

Maximum Marks: 50

Paper: 45

Credit Hours: 2/week

Duration of Exam: 3 hours

Internal Assessment: 05

Instructions to the paper setter:

Question paper will have four sections/units. Examiner will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus. Student will attempt one question from each unit and the compulsory question. All questions may carry equal marks, unless specified.

Objectives:

This course should enable the students to –

1. To enable the students to understand the herbal medicine and its role in field of nutrition.
2. To understand the role and interaction of nutrition and other allied disciplines in health management.
3. To keep the students updated with recent advancement in field of modern medicine and use of herbal medicine.

UNIT – I

1. Introduction to alternative system of medicines (Ayurveda, Homeopathy, Naturopathy, Yoga)

- γ Features of Alternative Medicine
- γ Importance of Alternative Medicines

2. Principles governing the alternative system of medicines

UNIT – II

3. Overview of role of traditional herbal medicines in healing

- γ Chinese medicine
- γ Japanese medicine
- γ Indian medicine

4. Awareness, control and regulation on use of herbal medicine

- γ Definition and classification of herbal medicinal products
- γ Good manufacturing practices and documentation of quality

UNIT –III

5. Ayurvedic concept of

- γ Diet in ayurveda
- γ Basic Tenets of Ayurveda- Food and its Components- *Akasha/ether*, (2) *Vayu/air* (3) *Teja/fire* (4) *Jala/water* (5) *Prithvi/earth and Gunas/ Physical Properties and Their Attributes of ayurvedic foods*

6. Medicinal plants used in alternative/traditional medicines-*neem*, aloe vera, garlic, turmeric and *tulsi*

UNIT –IV

7. Alternative medicine therapies – concept and principle of

- γ Mind body techniques – support groups, counseling, hypnosis, art therapy
- γ Body based practices – massage therapy, reflexology, aromatherapy, osteopathy, acupuncture

8. Importance and concept of diet in

- γ Yoga
- γ Naturopathy- Raw, mono, eliminative, soothing and constructive

RECOMMENDED READINGS

- γ National Science Board (2002). Science and Technology: Public Attitudes and Public Understanding, Section: Belief in Alternative Medicine". Science and Engineering Indicators - 2002. Arlington, Virginia: Division of Science Resources Statistics, National Science Foundation, US Government.
- γ Rosch, Paul J (2013).Alternative Medicine: More Hype Than Hope?
- γ Mayo Clinic (2010). Book of Alternative Medicine, 2nd Edition
- γ Kenneth R. Pelletier and William L. Simon (2002).The Best Alternative Medicine.
- γ David Hoffmann FNIMH AHG (2003).Medical Herbalism: The Science and Practice of Herbal Medicine.

PANJAB UNIVERSITY, CHANDIGARH

Outlines of tests, syllabi and courses of reading for M.Sc. Home Science (Foods & Nutrition) 1st & 2nd Semester System

**SCHEME OF STUDIES
SEMESTER I**

1st Semester Exam.

CODE	SUBJECT	CREDIT HOURS			THEORY MARKS			PRACTICAL MARKS			TOTAL
		T	P	TOTAL	PAPER	INT.	TOTAL	PAPER	INT.	TOTAL	
1	Nutritional Biochemistry	4	2	6	90	10	100	40	10	50	150
2	Human Nutrition	3	-	3	65	10	75	-	-	-	75
3	Public Health Nutrition I	2	2	4	45	05	50	40	10	50	100
4	Human Physiology	3	-	3	65	10	75	-	-	-	75
5	Research Methodology and Statistics	3	2	5	65	10	75	40	10	50	125
	TOTAL	15	6	21							525

SEMESTER II

2nd Semester Exam.

CODE	SUBJECT	CREDIT HOURS			THEORY MARKS			PRACTICAL MARKS			TOTAL
		T	P	TOTAL	PAPER	INT.	TOTAL	PAPER	INT.	TOTAL	
1	Biochemical Food Analysis and Instrumentation	2	2	4	45	05	50	40	10	50	100
2	Clinical and Therapeutic Nutrition I	3	2	5	65	10	75	40	10	50	125
3	Public Health Nutrition II	2	2	4	45	05	50	40	10	50	100
4	Advances in Nutrition	3	-	3	65	10	75	-	-	-	75
5	Computer Applications in Foods	-	2	2	-	-	-	40	10	50	50
6	Nutritional Anthropology	2	-	2	45	05	50	-	-	-	50
7	Dissertation	-	2	2	-	-	-	-	50	50	50*
	TOTAL	12	10	22							550

*Marks will be awarded by the supervisor internally on the basis of synopsis/continuous evaluation.

SEMESTER 1
PUBLIC HEALTH NUTRITION I
(THEORY)

Credit Hours: 2/week
Duration of Exam: 3 hours

Maximum Marks: 50
Paper: 45
Internal Assessment: 05

Instructions to the paper setter:

Question paper will have four sections/units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus. Student will attempt one question from each unit and the compulsory question. All questions may carry equal marks, unless specified.

Objectives

1. To understand the concept of Public Health Nutrition and health care delivery system.
2. To understand the causes and consequences of nutritional problems in the community.
3. To orient the students with the strategies for improving the nutritional status of communities.
4. To understand the concept of food and nutrition security.
5. To learn about the various Government programmes aimed at improving health and nutritional status of the population.

UNIT-I

1. Public Health Nutrition

- γ Aim, scope and content of Public health nutrition
- γ Role of nutrition in national development

2. Health Care Systems

- γ Health – definition, dimensions, determinants and indicators
- γ Health care systems in the community

UNIT-II

3. Public Health Aspects of Under nutrition

- γ Clinical syndromes of Malnutrition(Chronic Energy Deficiency/ PEM/ SAM)
- γ Severe Acute malnutrition and mortality

4. Prevention and management of

- γ Malnutrition
- γ Anemia
- γ Iodine Deficiency Disorders

UNIT-III

5. Approaches/ Strategies for Improving Nutrition and Health Status of the Community

- γ Health based interventions including immunization, provision of safe drinking water/ sanitation

- γ Food based interventions including food fortification, dietary diversification, supplementary feeding and biotechnological approaches.

6. Diarrhea and Malnutrition

- γ Diarrhea, morbidity, malnutrition and mortality
- γ Prevention and management of Diarrhea

UNIT-IV

7. Nutrition, agriculture and food Security

- γ Food and nutrition security: definitions, concept and components of food and nutrition
- γ Food and nutrition situation and food security in India

8. Food and nutrition security and programmes

- γ Food insecurity warning and mapping systems for nutritional vulnerability
- γ Public Sector programmes for improving of food and nutrition security
- γ Right to Food act
- γ Public Distribution System

RECOMMENDED READINGS:

- γ Achaya, K.T. (Ed) (1984) Interface between Agriculture, Nutrition and Food Science, The United National University.
- γ Beaton, G. H and Bengoa, J. M. (Eds) (1996) Nutrition in Preventive Medicine, WHO.
- γ Gibney M. J., Margetts, B.M., Kearney, J. M. Arab, I., (Eds) (2004) Public Health Nutrition, NS Blackwell Publishing.
- γ Gopalan, C. (Ed) (1987) Combating Under nutrition- Basic Issues and Practical Approaches, Nutrition Foundation of India.
- γ Kaufman M. (2007) Nutrition in promoting the public health strategies, principles and practices. Jones and Barlett Publishers.
- γ Park, K. (2009) Park's Textbook of Preventive and Social Medicine, 20th ed. Jabalpur M/s. Banarsidas Bhanot.
- γ Sheila Chander Vir. (2011). Public Health Nutrition in Developing Countries. Part 1 and 2. Woodhead Publishing India Pvt. Ltd.

**PUBLIC HEALTH NUTRITION I
(PRACTICAL)**

Total Marks: 50

Paper: 40

Internal assessment: 10

Teaching periods: 2p/week

Duration of exam: 3 hours

1. To plan and prepare low cost nutritious dishes / menus for vulnerable groups.
2. Development of low cost recipes for infants, preschoolers, elementary school children, adolescents, pregnant and lactating mothers
3. Planning and preparation of diet/ dishes for (PEM/SAM/CED, Anemia)
4. Field visits to ongoing national nutrition programmes

RECOMMENDED READINGS:

- γ Achaya, K.T. (Ed) (1984) Interface between Agriculture, Nutrition and Food Science, The United National University.
- γ Beaton, G. H and Bengoa, J. M. (Eds) (1996) Nutrition in Preventive Medicine, WHO.
- γ Gibney M. J., Margetts, B.M., Kearney, J. M. Arab, I., (Eds) (2004) Public Health Nutrition, NS Blackwell Publishing.
- γ Gopalan, C. (Ed) (1987) Combating Under nutrition- Basic Issues and Practical Approaches, Nutrition Foundation of India.
- γ Kaufman M. (2007) Nutrition in promoting the public health strategies, principles and practices. Jones and Barlett Publishers.
- γ Park, K. (2009) Park's Textbook of Preventive and Social Medicine, 20th ed. Jabalpur M/s. Banarsidas Bhanot.

SEMESTER II

PUBLIC HEALTH NUTRITION II (THEORY)

Credit Hours: 2/week
Duration of Exam: 3 hours

Maximum Marks: 50
Paper: 45
Internal Assessment: 05

Instructions to the paper setter:

Question paper will have four sections/units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus. Student will attempt one question from each unit and the compulsory question. All questions may carry equal marks, unless specified.

Objectives:

1. To understand the process of planning, monitoring and evaluation of public health nutrition programmes.
2. To give an understanding about IEC and to develop skills in preparation of communication aids for the community.
3. To be familiar with the ongoing national nutrition programmes.

UNIT-I

1. Programmes planning and management in Public Health Nutrition

- γ Planning: Definition, principles, process and planning cycle
- γ Management methods and techniques
- γ Evaluation: Definition, significance, purpose, types and steps of evaluation.

2. National Nutrition Programmes: Objectives and operations of

- γ ICDS
- γ Mid Day meal
- γ School health program

UNIT-II

3. Nutrition Education Communication (NEC)

- γ Importance and need for NEC
- γ Process of NEC
- γ NEC for Behavior change: Need for NEC for behavior change, Behavior and determinants of behavior.

4. Media/Methods of NEC, characteristics and their use.

- γ Relevance of Information Education Communication (IEC) to Programs

UNIT –III

5. Approaches for Control of under nutrition in India

National Programmes and guidelines for controlling under nutrition in India with emphasis on

- γ IYCF
- γ NRHM
- γ RCH
- γ IMNCI

6. Rolling of new WHO standards in India, its importance and implications

- γ National Nutrition Policy

UNIT- IV

7. Population Dynamics

- γ Demographic Transition
- γ Population Structure: Implications on quality of life
- γ Population Policy

8. Millanium Development Goals (MDGs)

- γ Millennium Development Goals and its relationship with nutrition
- γ New Emerging public health Problems of NCDs

RECOMMENDED READINGS:

- γ Edelstein S. (2006) Nutrition in Public Health. A handbook for developing programmes and services. Second Edition. Jones and Bartlett Publishers.
- γ Goyet, Fish. V. Seaman, J. and Geijer, U. (1978) The Management of Nutritional Emergencies in Large Populations, World Health Organization, Geneva.
- γ FAO. (1983) Selecting Interventions for Nutrition Improvement. A Manual Nutrition in Agriculture. No. 3.
- γ Gibney M.J., Margetts, B.M., Kearney, J. M. Arab, I., (Eds) (2004) *Public Health Nutrition*, NS Blackwell Publishing.
- γ Klein, R. E. (Ed) (1979) Evaluating the Impact of Nutrition and Health Programmes. London and New York: Plenum Press.
- γ Owen. A. Y. and Frankle, R. T. (1986) Nutrition in the Community. The Art of Delivering Services, 2nd ed. Times Mirror/ Mosby.
- γ WFP/ UNHCR (1998) WEP/ UNHCR Guidelines for Selective Feeding Programmes in Emergency Situations. Rome and Geneva: WEP & UNHCR.
- γ Sheila Chander Vir. (2011). Public Health Nutrition in Developing Countries. Part 1 and 2. Woodhead Publishing India Pvt. Ltd

**PUBLIC HEALTH NUTRITION II
(PRACTICAL)**

Total Marks: 50

Paper: 40

Internal assessment: 10

Teaching periods: 2p/week

Duration of exam: 3 hours

1. Development of nutritious food supplements/ dishes for various vulnerable segments of population
2. Assessment of the type of nutritional problems and their determinants in different population groups through analysis of secondary data (such as NSSO, NFHS data)
3. Field visits to ongoing public health nutrition programmes.
4. Assessment of their needs and study the public health nutrition problems in an identified community.

RECOMMENDED READINGS:

- γ Edelstein S. (2006) Nutrition in Public Health. A handbook for developing programmes and services. Second Edition. Jones and Bartlett Publishers.
- γ Goyet, Fish. V. Seaman, J. and Geijer, U. (1978) The Management of Nutritional Emergencies in Large Populations, World Health Organization, Geneva.
- γ FAO. (1983) Selecting Interventions for Nutrition Improvement. A Manual Nutrition in Agriculture. No. 3.
- γ Gibney M.J., Margetts, B.M., Kearney, J. M. Arab, I., (Eds) (2004) *Public Health Nutrition*, NS Blackwell Publishing.
- γ Klein, R. E. (Ed) (1979) Evaluating the Impact of Nutrition and Health Programmes. London and New York: Plenum Press.

**Post Graduate Diploma in Nutrition and
Dietetics Scheme of Studies**

Semester - I

Sr. no.	Subject	Credit Hours			TheoryMarks			Practical Marks			TOTAL MARKS
		T	P	TOTAL	Paper	Int. Ass.	TOTAL	Paper	Int. Ass.	TOTAL	
1.	Applied Nutrition - I	3	3	6	60	15	75	40	10	50	125
2.	Public Health Nutrition - I	3	3	6	60	15	75	40	10	50	125
3.	Institutional Food Service Management - I	2	3	5	40	10	50	-	*50	*50	100
4.	Introduction to Microbiology	2	-	2	40	10	50	-	-	-	50
5.	Human Physiology	3	-	3	60	15	75	-	-	-	75
6.	Food Product Development	-	2	2	-	-	-	40	10	50	50
7.	Nutritional Biochemistry	2	-	2	40	10	50	-	-	-	50
8.	*Seminar - I	-	2	2	-	-	-	-	*25	*25	*25
9.	*Project	-	2	2	-	-	-	-	-	*S/US	*S/US
	Total	15	15	30			375			225	600

Semester - II

Sr. no.	Subject	Credit Hours			TheoryMarks			Practical Marks			TOTAL MARKS
		T	P	TOTAL	Paper	Int. Ass.	TOTAL	Paper	Int. Ass.	TOTAL	
1.	Applied Nutrition - II	2	-	2	40	10	50	-	-	-	50
2.	Public Health Nutrition - II	4	4	8	80	20	100	60	15	75	175
3.	Institutional Food Service Management - II	2	3	5	40	10	50	-	*50	*50	100
4.	Food Hygiene and Microbiology	2	-	2	40	10	50	-	-	-	50
5.	Diet Therapy	4	4	8	80	20	100	60	15	75	175
6.	*Diet Counseling and Computer Operation	-	3	3	-	-	-	-	*25	*25	*25
7.	*Seminar - II	-	2	2	-	-	-	-	-	*25	*25
	Total	14	16	30			350			250	600

*Only internal examination/ continuous evaluation will be done and marks will be awarded internally.

NOTE: Students are required to undergo mandatory 3 months internship training in the dietetics department of a hospital.

Pre requisites of obtaining diploma:

- Y Certificate of completion of training/ internship.
- Y Submission and presentation of internship report. The internship report will be graded as satisfactory/ unsatisfactory by the concerned department faculty.

**Post Graduate Diploma in
Nutrition and Dietetics
Semester1
PUBLIC HEALTH
NUTRITION – ITHEORY**

**MARKS: 75
PAPER: 60
INTERNAL
ASSESSMENT: 15**

CREDITS:

3p/week

OBJECTIVES

:

1. To understand the causes/determinants and distribution of nutrition problems in the community.
2. To understand the consequences of nutritional problems.
3. To be familiar with various approaches to nutrition and health interventions programs and policies.

INSTRUCTIONS TO PAPER SETTERS:

1. Each theory paper will be of three hours duration.
2. Question paper will have four sections/units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
3. Student will attempt one question from each unit and the compulsory question (Total of five questions)
4. All questions may carry equal marks, unless specified.

UNIT I

1. Concept of community:
 - γ Types of community
 - γ Factors affecting health of community
2. Aim, scope and content of Public Health Nutrition
3. Role of public health nutrition in national development

UNIT II

4. Epidemiological triad:
 - γ Factors affecting malnutrition – Agent, host and environmental factors

5. Nutritional measures to overcome malnutrition:
 - γ Germination
 - γ Fortification
 - γ Supplementation
 - γ Enrichment
 - γ Parboiling
 - γ GM foods
 - γ Unconventional foods
 - γ Green revolution and white revolution
 - γ Food security

UNIT III

6. Nutrition and infection:
 - γ Interrelationship between nutrition and infection- basic concept

7. Nutritional surveillance:
 - γ Meaning
 - γ Need and importance
 - γ Objectives

8. Nutrition education:
 - γ Scope and importance
 - γ Group, individual and mass media methods and techniques

UNIT IV

9. Food and nutrition security:
 - γ Concept of food security
 - γ Factors underlying food and nutrition security
 - γ Right to food act 2009
 - γ Laws related to food safety – HACCP, FSSAI

10. National and international agencies engaged in food and nutrition activities: National agencies:

- γ ICMR
- γ NIN
- γ CSIR
- γ CFTRI
- γ ICAR

International agencies:

- γ FAO
- γ WHO
- γ UNICEF
- γ CARE
- γ UNESCO

RECOMMENDED READINGS:

- γ Gibney M.J., Margetts, B.M., Kearney, J.M. Arab, I. eds (2004) *Public Health Nutrition*, NS Blackwell Publishing. .
- γ Jelliffe, D. B and Jelliffe, E.F.P. (1989) *Community Nutritional Assessment*, Oxford University Press.
- γ Owen, A.Y. and Frankle, R.T. (1986) *Nutrition in the Community. The Art of Delivering Services*, 2nd ed. Times Mirror/Mosby.
- γ Park.K. (2009) *Park's Textbook of Preventive and Social Medicine*, 20th ed. M/s Banarsida Bhanot, Jabalpur.
- γ Wadhwa, A. and Sharma, S. (2006) *Nutrition in the Community*. A text book. SCN News, UN ACC/SCN Subcommittee on Nutrition.
- γ Mahtab S Bamji. (2010). Textbook of human nutrition. Delhi : Oxford.
- γ Swaminathan, M (1991): Essentials of Food and Nutrition, vols. I and II. Ganesh and Co. Madras.
- γ Stipanick, Martha H., (2006). Biochemical Physiological Molecular aspect of human nutrition. London : Elsevier.
- γ IAP. Textbook of Pediatrics. IVth Edition. JP Publishers.
- γ Babasahib and Desai. (2000). Handbook of nutrition and diet. New York.
- γ Mahindru S.N., (2009). Food Science and Technology: Food Safety. Vol II. New Delhi. APH Publication.
- γ Community Nutrition: Applying Epidemiology and Contemporary Practice. New Delhi. Boston Jones. 2007.
- γ Public Health Nutrition in Developing Countries. Part 1 and 2. Edited by Sheila Chander Vir. Woodhead Publishing India Pvt. Ltd. 2011.

PUBLIC HEALTH NUTRITION – I
PRACTICAL

MARKS: 50

PAPER: 40

INTERNAL ASSESSMENT:

10

CREDITS:
3p/week

1. Planning and preparation of low cost nutritious recipes for:
 - γ Preschoolers
 - γ Adolescents
 - γ Pregnant and lactating women
2. Planning and preparation of low cost nutritious recipes for mid-day meal program as per the Government of India guidelines
3. Preparation and demonstration of nutrition education aids
4. Visit to primary health care centre.

SEMESTER II
PUBLIC HEALTH
NUTRITION – II
THEORY

MARKS: 100
PAPER: 80
INTERNAL
ASSESSMENT: 20

CREDITS:

4p/week

OBJECTIVES

:

1. To understand the causes/determinants and distribution of nutrition problems in society.
2. To understand the consequences of nutritional problems.
3. To be familiar with various approaches to nutrition and health interventions programs and policies.

INSTRUCTIONS TO PAPER SETTERS:

1. Each theory paper will be of three hours duration.
2. Question paper will have four sections/units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
3. Student will attempt one question from each unit and the compulsory question (Total of five questions)
4. All questions may carry equal marks, unless specified.

UNIT I

1. Etiology, public health implication and preventive strategies for:
 - γ Protein energy malnutrition
 - γ Vitamin A deficiency
 - γ Nutritional anemia
2. Etiology, public health implication and preventive strategies for:

- γ Iodine deficiency disorders
- γ Vitamin D and osteoporosis
- γ Zinc deficiency

UNIT II

3. Objectives and operations of nutrition programs in India:
 - γ Mid-day meal program
 - γ Integrated child development services (ICDS)
 - γ Supplementary nutrition program (SNP)
 - γ Vitamin A prophylaxis program
 - γ National iodine deficiency disorder control program (NIDDCP)
 - γ National anemia prophylaxis / control program

4. Food toxins – Chemical and natural

UNIT III

5. Assessment of nutritional status:

Direct assessment:

 - γ Clinical signs – need and importance, identifying signs of PEM, vitamin A, iron deficiency and iodine deficiency
 - γ Nutritional anthropometry – need and importance, techniques for measuring height, weight, head, chest and arm circumference
 - γ Biochemical tests and biophysical methods

6. Dietary surveys:
 - γ Need and importance
 - γ Methods of dietary survey
 - γ Interpretation

UNIT IV

7. Indirect methods of assessment: Vital statistics

8. Growth references and standards:
 - γ Height for age
 - γ Weight for age
 - γ Weight for height
 - γ Body mass index
 - γ Mid upper arm circumference
 - γ Concept of NCHS, WHO, NFHS
 - γ Welcome trust classification

RECOMMENDED READINGS:

- γ Gibney M.J., Margetts, B.M., Kearney, J.M. Arab, I. eds (2004) *Public Health Nutrition*, NS Blackwell Publishing. .
- γ Jelliffe, D. B and Jelliffe, E.F.P. (1989) *Community Nutritional Assessment*, Oxford University Press.
- γ Owen, A.Y. and Frankle, R.T. (1986) *Nutrition in the Community. The Art of Delivering Services*, 2nd ed. Times Mirror/Mosby.
- γ Park.K. (2009) *Park's Textbook of Preventive and Social Medicine*, 20th ed. M/s Banarsida Bhanot, Jabalpur.
- γ Wadhwa, A. and Sharma, S. (2006) *Nutrition in the Community*. A text book. SCN News, UN ACC/SCN Subcommittee on Nutrition.
- γ Mahtab S Bamji. (2010). Textbook of human nutrition. Delhi : Oxford.
- γ Swaminathan, M (1991): Essentials of Food and Nutrition, vols. I and II. Ganesh and Co. Madras.
- γ Stipanick , Martha H.,(2006). Biochemical Physiological Molecular aspect of human nutrition. London : Elsevier.
- γ IAP. Textbook of Pediatrics. IVth Edition. JP Publishers.
- γ Babasahib and Desai. (2000). Handbook of nutrition and diet. New York.
- γ Mahindru SN., (2009). Food Science and Technology: Food Safety. Vol II. New Delhi. APH Publication.
- γ Community Nutrition: Applying Epidemiology and Contemporary Practice. New Delhi. Boston Jones. 2007.
- γ Public Health Nutrition in Developing Countries. Part 1 and 2. Edited by Sheila Chander Vir. Woodhead Publishing India Pvt. Ltd. 2

**PUBLIC HEALTH NUTRITION –
II PRACTICAL**

CREDITS: 4p/week

**MARKS: 75
PAPER: 60
INTERNAL
ASSESSMENT: 15**

1. Planning and preparation of low cost nutritious recipes for:
 - γ High protein and energy
 - γ High protein
 - γ High in vitamin A
 - γ High in iron
 - γ High in calcium
2. Plotting of growth chart
3. Techniques for anthropometric measurements : height, weight, mid upper arm circumference

Enrichment beyond Curriculum

S.No.	Society and Units	Links
1.	Environment Society-Harita	https://homescience10.ac.in/harita-environment-society
2.	NCC	https://homescience10.ac.in/aim-of-ncc
3.	NSS	https://homescience10.ac.in/aim-of-nss