



BENGALURU CITY UNIVERSITY

CHOICE BASED CREDIT SYSTEM

**(Semester Scheme with Multiple Entry and Exit Options for
Under Graduate Course)**

**Syllabus for B.Sc. Home Science
(V & VI Semester)**

2023-24 onwards

**Proceedings of the BOS in Home Science (UG& PG) for Bengaluru City University held on
15th September, 2023**

A meeting of the BOS in Home Science (UG& PG) for Bengaluru City University held on 15th September, 2023 between 10:30 am to 5:30 pm in Smt. V.H.D Central Institute of Home Science, Seshadri Road, Bengaluru – 560 001.

The following members were present in online & offline mode for the meeting:

Name and Designation

1. **Dr.Usha Devi. C**
Chairperson BOS in Home Science (UG, PG & PhD)
Bengaluru City University (BCU)
Principal & Director
Smt. V.H.D Central Institute of Home Science
Maharani Cluster University
Seshadri Road, Bengaluru – 560 001.
2. **Dr.Vijayalaxmi A.H.M.,**
Member
Professor & Joint Director,
Department of Collegiate Education,
Regional Joint Director Office,
Mysuru – 570 001
3. **Dr.Madhumathy S.,**
Member
Professor & HOD,
Department of Home Science,
Government College of Home Science,
Hassan - 573211
4. **Dr.AshaJyothi U. H.,**
Member
Professor & Principal,
Department of Home Science,
Government College of Home Science,
Holenarasipura, Hassan – 573 211
5. **Dr.Grace Premila Victor.,**
Member
Associate professor & HOD,
Department of Nutrition & Dietetics,
Bishop Cotton Women's College,
Field Marshal Kariyappa Road,
Bengaluru – 560 025

Usha Devi
15/9/23

ABSENT

ATTENDED ONLINE

ATTENDED ONLINE

Grace Premila
15/9/23

6. Dr.Marie Kavitha Jayakaran.,

Member

Associate professor & HOD,
Department of Home Science,
Bishop Cotton Women's College,
Field Marshal Kariyappa Road,
Bengaluru – 560 025

M.Kavitha
15/1/23

7. Dr.Sangeeta Pandey.,

Member

Professor & HOD,
Department of Nutrition and Dietetics,
Mount Carmel College (Autonomous),
No. 58, Palace Road,
Bengaluru – 560 052

Sandey
15/1/23

8. Dr.Komala M

Member

Professor & HOD,
Department of Human Development,
University of Mysore,
Manasa Gangothri, Mysuru – 570 006

ATTENDED
ONLINE

The meeting began with Dr Usha Devi C., Chairperson BOS in Home Science, welcoming the members to the meeting and apprising the members of the agenda scheduled for the meeting. She also informed the members that at present two colleges listed below are offering BA/BSc Home Science as one optional and BSc Nutrition and Dietetics courses at UG level and PG in Nutrition and Dietetics in one of the college.

- Bishop Cotton Women's Christian College – BA/BSc Home Science as one optional and Nutrition and Dietetics course; and also PG in Nutrition and Dietetics
- S B A N M College, Yelahanka – BSc Clinical Nutrition & Dietetics

1. The Board reviewed the NEP Home Science UG syllabus of fifth and sixth semester, made the necessary minor changes in the syllabus and approved the same for the academic year 2023-2024 for all the courses
2. The BOS committee also finalised eligibility criteria for M.Sc – Nutrition & Dietetics course offered in Bishop Cotton Women's Christian College under BCU, which is as follows:- students who have studied in B.Sc – Nutrition & Dietetics/ B.Sc Food & Nutrition/ B.Sc – Composite Home Science/ B.Sc – Food Science & Nutrition/ B.Sc – Nutrition & Dietetics as one of the majors (Annexure-I).
3. The Board constitutes the BOE (UG/PG) for approval by the BCU (Annexure-II).

4. The Board included panel of examiners from MCU, School of Home Science, Bishop Cotton Women's Christian College, Mount Carmel College to the Panel of Examiners sent by Bengaluru City University and recommended the same to BCU (Annexure-I) and an additional list of panel from other colleges.

The meeting ended with the Chairperson thanking the members for attending the meeting.

Grace Premila
Dr. Grace Premila Victor.
15/9/22

Marie Kavitha Jayakaran
Dr. Marie Kavitha Jayakaran.

Sangeeta Pandey
15/9/23
Dr. Sangeeta Pandey.

Usha Devi C
Dr. Usha Devi C
Chairperson
Dr. USHA DEVI. C., MSc., Ph.D., FISCA
Chairperson
BOS in Home Science (UG&PG)
Bangalore City University (BCU)
Central College Campus, Bangalore - 01

BENGALURU CITY UNIVERSITY

SYLLABUS

5TH AND 6TH SEMESTER

DEPARTMENT OF HOME SCIENCE

- 1) BA/BSC -Home Science
(AS ONE MAJOR)**
- 2) BSC -Nutrition & Dietetics
(AS ONE MAJOR)**
- 3) BSC -Clinical Nutrition & Dietetics
(Inter-disciplinary)**

SEPTEMBER 2023

THE LIST OF THE MEMBERS OF THE BOARD OF STUDIES
FACULTY OF HOME SCIENCE

Sl.No	NAME	DESIGNATION
1	DR. USHA DEVI C	CHAIRPERSON
2	DR. VIJAYALAXMI A.H.M	MEMBER
3	DR. MADHUMATHY S	MEMBER
4	DR. SHANTHA MARIA B. V	MEMBER
5	DR. GRACE PREMILA VICTOR	MEMBER
6	DR. ASHAJYOTHI U.H.	MEMBER
7	DR. SANGEETA PANDEY	MEMBER
8	DR. KOMALA M	MEMBER
9	DR. MARIE KAVITHA JAYAKARAN	MEMBER

HOME SCIENCE SUBJECT EXPERT COMMITTEE

**Composition of Curriculum – Committee for Home Science
(Composite Home Science/ Home Science/ Nutrition & Dietetics/ Clinical Nutrition
& Dietetics/ Care and Welfare/ Human Development/ Family Resource
Management)**

S. No.	Name and Organization	Designation
1.	Dr. M. Anuradha Principal, Padmashree Institute of Management and Sciences, Bengaluru	Chairperson
2.	Dr. Komala M. (Human Development) Professor, University of Mysore, Mysuru	Member
3.	Dr. Vijayalakshmi A.H.M. (Human Dept./ Care & Welfare), Associate Professor, Maharani Cluster University, Bengaluru	Member
4.	Dr. Shantha Maria (Home Science) Associate Professor, Mount Carmel College, Bengaluru	Member
5.	Dr. Sangeetha Pandey (Nutrition & Dietetics), Associate Professor Mount Carmel College, Bengaluru	Member
6.	Dr. Marie Kavitha (Human Dept.), Bishop Cotton Women's Christian College, Bengaluru	Member
7.	Dr. Gana Shruthy M.K. Special Officer, KSHEC, Bengaluru	Member - Convenor

**Curriculum
of
B.A/ B.Sc Home Science
as a ONE Major
(5th and 6th Semester)**

KARNATAKA STATE HIGHER EDUCATION COUNCIL

Sub-committee members of B. A/ B.Sc. Home Science

1.	Dr. Marie Kavitha Jayakaran - Convenor Bishop Cotton Women's Christian College -Bengaluru
2.	Dr. Vijaya U Patil Government First Grade College -Ankola
3.	Dr. Manjula G. Kadapatti Maharani Cluster University-Bengaluru
4.	Mrs. Veena Tirlapur KLE Society's Art & Commerce College -Gadag
5.	Mrs. Anita Bettaiah Bishop Cotton Women's Christian College -Bengaluru
6.	Mrs. Shobha. S SDM College - Ujire

Listing of Courses from I to VI Semesters for the Four-Year Undergraduate Program (FYUGP) in Home Science

Sem No.	Course Category	Course Code	Course Titles	Credits assigned	Instructional Hours per week		Duration of Exam(Hrs.)	Marks		
					Theory	Practical		IA	Exam	Total
I	DSC	HSCC1-T	Principles of Food and Nutrition	4	4		2.5	40	60	100
		HSCC2-P	Principles of Food and Nutrition	2	-	4	3	25	25	50
		HSCOE1-T	Food Preservation	3	3	-	2.5	40	60	100
II	DSC	HSCC3-T	Fundamentals of Human Development	4	4		2.5	40	60	100
		HSCC4-P	Fundamentals of Human Development	2		4	3	25	25	50
		HSCOE2-T	Teaching materials for early childhood education	3	3	-	2.5	40	60	100
III	DSC	HSCC5-T	Early childhood care and education	4	4		2.5	40	60	100
		HSCC6-P	Early childhood care and education	2		4	3	25	25	50
		HSCC0E3-T	Fundamentals of interior decoration	3	3	-	2.5	40	60	100
IV	DSC	HSCC7-T	Introduction to textiles	4	4		2.5	40	60	100
		HSCC8-P	Introduction to textiles	2		4	3	25	25	50
		HSCC0E4-T	Fashion designing	3	3	-	2.5	40	60	100
V	DSC	HSCC9-T	Human development and family dynamics	4	4		2	40	60	100
		HSCC10-P	Human development and family dynamics	2		4	3	25	25	50
		HSCC11-T	Interior decoration	3	3		2.5	40	60	100
VI	DSC	HSCC12-P	Interior decoration	2		4	3	25	25	50
		HSCC13-T	Traditional textiles and costumes of India	4	4		2-5	40	60	100
		HSCC14-P	Traditional textiles and costumes of India	2		4	3	25	25	50
		HSCC15-T	Resource Management	3	3		2.5	40	60	100
		HSCC16-P	Resource management	2		4	3	25	25	50



Government of Karnataka

Model Curriculum

Program Name	BA/B.Sc. Home Science		Semester	Fifth Sem
Course Title	Human development and Family Dynamics (Theory)			
Course No.	HSCC9-T	DSC	No. of Credits	4+2
Contact hours	60 Hrs		Duration of SEA/Exam	2 Hours
Formative Assessment Marks	40		Summative Assessment Marks	60

Course Pre-requisite(s): Certificate with minimum 45%.	
Course Outcomes (COs): At the end of the course the student should be able to <ol style="list-style-type: none"> 1. Understand the period of Adolescence and its developmental changes. 2. Study the need of counselling for adolescents. 3. Understand the physical, Physiological cognitive and socio-emotional development during adulthood stages. 4. Sensitized about interpersonal relationships, Marriage, functions of marriage, changing trends in marriage and Family and family dynamics. 5. Prepare for outreach activities with varied groups of adults and elderly. 	
Content	60 Hrs
Unit-I. Adolescence	15 Hrs
Chapter No. 1 Definition, characteristics, developmental tasks of Adolescence.	2 Hrs
Chapter No. 2 Physical changes, puberty, primary and secondary sexual characteristics among adolescents.	4 Hrs
Chapter No. 3 Identity formation, social, emotional, cognitive and moral development. Interests and problems of adolescents	5 Hrs
Chapter No. 4 Need for adolescent counselling. Techniques and methods of adolescent counseling. Education and Career guidance	4 Hrs
Unit-II. Adulthood- Early Adulthood and Marriage	15 Hrs
Chapter No. 5 Historical perspectives on adulthood, Contemporary changes, increase in life expectancy	7 Hrs

and decrease in death rate, classification of Adulthood. Early Adulthood- Characteristics and developmental tasks, physical, social, cognitive, emotional and moral development. Roles, responsibilities and adjustments.	
Chapter No. 6 Marriage – definition, functions, areas of marital adjustments, essentials of successful marriage	3 Hrs
Chapter No. 7 Changing trends in marriage: cohabitation, remarriage, LGBT (Lesbian, Gay, Bisexual, and Transgender) marriages	5 hrs
Unit-III. Family, Family Dynamics and Middle Adulthood	15 Hrs
Chapter No. 8 Family – Definition functions and types. Changing trends in family: causes for change, single parent families, separated families, nuclear families cross-generational families, adoptive/foster families, blended families, same-sex parent families	5 Hrs
Chapter No. 9 Family Dynamics- Definition, function and scope. Gender norms and roles in family dynamics	3 Hrs
Chapter No. 10 Middle Adulthood - Characteristics and developmental tasks. Physical, physiological and socio-emotional changes, changes in cognitive abilities, Adjustments and hazards of middle age, preparation for retirement	7 Hrs
Unit-IV. Family crisis and Late Adulthood	15 Hrs
Chapter No. 11 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	10 Hrs
Chapter No. 12 Late Adulthood - Characteristics and developmental tasks. Physical, physiological, psychological and social changes. Health care and health problems, Adjustments to retirement. successful ageing	5 Hrs

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-12)

Course Outcomes (COs) / Program Outcomes (POs)	1	2	3	4	5	6	7	8	9	10	11	12
Understand the period of Adolescence and its developmental changes		X		X	X						X	
Understand the physical, Physiological cognitive and socio-emotional development during adulthood stages								X	X		X	
Sensitized about interpersonal relationships, Marriage, functions of marriage, changing trends in marriage and Family and family dynamics								X		X		X
Prepare for outreach activities with varied groups of adults and elderly			X	X				X				

Pedagogy - Theory

Formative Assessment + Summative assessment = 40+60=100 marks	
Formative Assessment	Weightage in Marks
Test 1	15
Test 2	15
Assignment + Project	5 + 5
Summative Assessment	60
Total	40 marks + 60 marks = 100 marks

Course Title:	Human development and Family Dynamics (Practical)	Practical Credits	2
Course No.	HSCC10 P	Contact Hours:	52/13Sessions
Practical Topics - 2 credits		13 - 15 weeks	
Unit I <ul style="list-style-type: none"> Conduct a study on selection of life partner/ changing trends in marriage//adjustments/ problems in marriage OR Plan an interaction with a counselor or therapists working in the area of interpersonal conflicts (in the family family/peer group/parent-child/ Adolescent). 			10 Hrs
Unit II <ul style="list-style-type: none"> Conduct a role play to create awareness among college students on family values / family relationship /stability in marriage. OR Select a form of family crisis or stress. Develop an educational aid to prevent and manage the crisis. Visit to an Adolescent/ family counselling center and write a report 			15 Hrs

Unit III <ul style="list-style-type: none"> Organize a workshop for adolescents on -physical changes/health issues/ menstrual hygiene/behaviour during adolescence. OR Conduct a workshop on enhancing family cohesion and conflict resolution 	12 Hrs
Unit IV <ul style="list-style-type: none"> Plan, prepare and conduct activities to foster cognitive abilities / health/ nutrition/ recreational activities for the aged. OR Create posters about ways to improve interpersonal communication skills and patters of relating to enhance resiliency in relationships 	15 Hrs

Assessment

Formative +Summative Assessment = 25+25=50 marks

Formative Assessment	Weightage in Marks
Test 1	15
Test 2	15
Assignment / project	5 + 5
Total	25 marks + 25 marks = 50 marks

References:	
1.	Arnett, J. J., & Jensen, L. A. (2019). <i>Human Development: A cultural approach (3rded.)</i> . New York: Pearson.
2.	Berk, L.E. (2005). <i>Child development (5th ed.)</i> . New Delhi: Prentice Hall
3.	Baradha.G 'Basics of Human Development' Saradalaya Press, Sri Avinashilingam Education Trust Institutions, Coimbatore 2008.
4.	Cavanaugh, J., & Blanchard-Fields, F. (2011). <i>Adult development and aging (7thed)</i> . Stamford, CT: Cengage Learning.
5.	Hurlock.B.Elizabeth 'Developmental Psychology – A Life Span Approach' Tata McGraw Hill Publications, New Delhi Latest Edition. 3.
6.	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.	Santrock, J. (2017). <i>A topical approach to life span development (9th ed.)</i> . New NY.:Mcgraw-Hill Higher Education.
8.	Singh, A. (2015). <i>Foundations of Human Development: A life span approach</i> . ND: Orient Black Swan
9.	Suriakanthi. A. (2015) 'Child Development' Kavitha Publications, Gandhigram, Tamil Nadu.
10.	Walsh, B.A., Deflorio, L., Burnham, M.M., & Weiser, D.A. (2017). <i>Introduction to Human Development and Family Studies</i> . NY: Routledge

Date

Course Coordinator

Subject Committee Chairperson



Government of Karnataka

Model Curriculum

Program Name	BA/B.Sc. Home Science		Semester	Fifth Sem
Course Title	Interior Decoration (Theory)			
Course No.	HSCC11-T	DSC	No. of Credits	4+2
Contact hours	60 Hrs		Duration of SEA/Exam	2.5 Hours
Formative Assessment Marks	40		Summative Assessment Marks	60

Course Pre-requisite(s): Certificate with minimum 45%.	
Course Outcomes (COs): At the end of the course the student should be able to <ul style="list-style-type: none"> To Learn about housing and its principles To understand about color and its application in interiors To apply elements and principles of design in interior decoration To know about furniture, window treatment and accessories in interiors 	
Content	60 Hrs
Unit-I. Design Fundamentals	15 Hrs
Chapter No. 1 Types of design- Structural and Decorative, Naturalistic, Stylized, Geometric, Abstract.	3 Hrs
Chapter No. 2 Elements of Art- Line, form, color, space, texture, Pattern, light.	6 Hrs
Chapter No. 3 Principles of design- Harmony, Proportion, Balance, Rhythm, Emphasis	6 Hrs
Unit-II. Dimension of color	15 Hrs
Chapter No. 4 Dimension of color- Hue, Value, Intensity, Advancing and receding colors, cool and warm colors. Characteristics of colors	7 Hrs
Chapter No. 5 Prang color system- Primary, secondary, and Tertiary colors, color wheel. Color Harmonies- Related and Non-Related Color Harmonies.	8 Hrs
Unit-III Housing	15 Hrs
Chapter No. 4 Principles of Housing , types of Dwelling Units , Kitchen Plans	7 Hrs

<p>Chapter No. 5 Factors to be considered in Selection, Principles of Furniture Arrangement, FurnitureArrangement for different rooms. Styles of Furniture and materials used to make furniture</p>	<p>8 Hrs</p>
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Unit IV – Window Treatment & Accessories	15 hrs
Chapter No. 8 Windows- Types of windows- casement, bay window, sliding window, awing window, picture window. Window treatment- Modes of Hanging Curtains- Cafe, Tier, Priscilla, CrissCross, Glass, Pleated	8 Hrs
Chapter No. 9 Accessories – classification and type Flower decoration -styles and shapes	7 Hrs

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-12)

Course Outcomes (COs) / Program Outcomes (POs)	1	2	3	4	5	6	7	8	9	10	11	12
To Learn about housing and its principles		X		X	X						X	
To understand about colour and its application in Interiors								X	X		X	
To apply elements and principles of design in interior decoration								X		X		X
To know about furniture, window treatment and accessories in interiors			X	X				X				

Pedagogy - Theory

Formative Assessment + Summative assessment = 40+60=100 marks	
Formative Assessment	Weightage in Marks
Test 1	15
Test 2	15
Assignment + Project	5 + 5
Summative Assessment	60
Total	40 marks + 60 marks = 100 marks

Course Title:	Interior Decoration (Practical)	Practical Credits	2
Course No.	HSCC12 P	Contact Hours:	52/13Sessions
Practical Topics - 2 credits		13 - 15 weeks	
Unit I Elements of Arts and Principles of design.			20 Hrs
Unit II Color wheel, color harmonies.			7 Hrs
Unit III Furniture arrangement and Window treatment			20 Hrs
Unit IV Flower arrangement			5 Hrs

Assessment

Formative +Summative Assessment = 25+25=50 marks	
Formative Assessment	Weightage in Marks
Test 1	10
Test 2	10
Assignment / project	5
Total	25 marks + 25 marks = 50 marks

References:	
1.	Prathap Rao (2003) Interior design Principles - Standard Publishers and Distributors, New Delhi.
2.	Raja Rao and Subramanya (2003) Planning and Designing Residential Buildings - Standard Publishers and Distributors, New Delhi.
3.	Sita Ram Premavathy Pannuparveen (2005) Interior Design and Decoration - CBS Publishers, , New Delhi.
4.	Premlatha Mullick (2015) Textbook Of Home Science - Kalyani Publishers, New Delhi.

Date

Course Coordinator

Subject Committee Chairperson



Government of Karnataka

Model Curriculum

Program Name	BA/B.Sc. Home Science		Semester	Sixth Sem
Course Title	Traditional Textiles and Costumes of India (Theory)			
Course No.	HSCC13 T	DSC	No. of Credits	4+2
Contact hours	60 Hrs		Duration of SEA/Exam	2.5 Hours
Formative Assessment Marks	40		Summative Assessment Marks	60

Course Pre-requisite(s): Certificate with minimum 45%.	
Course Outcomes (COs): At the end of the course the student should be able to <ul style="list-style-type: none"> • Acquaint with Indian Textile and Clothing culture • Analyse traditional textiles based on the process of making it. • Understand the physical, geographical, cultural influence on costumes and textiles. • Differentiates traditional textiles from different parts of the country. • Appreciates the traditional Textiles and Costumes • Utilize traditional costume and textiles in contemporary context. • Understands the techniques of traditional embroidery 	
Content	60 Hrs
Unit-I. Introduction to Traditional Textiles	15 Hrs
Chapter No. 1 Textile Arts of India Weaving and weaving communities, Embroideries, Rugs and carpets, Saris Shawls and wraps.	3 Hrs
Chapter No. 2 History of Indian Traditional Textiles Chronological development of spinning, weaving and dyeing various trade routes.	4 Hrs
Chapter No. 3 Traditional Costumes- Classification of Traditional Textiles of India Painted and printed, Resist dyed, woven, and embroidered. Traditional Costume and Culture Influence of historical, economic, political and socio-cultural aspects on the evolution of traditional costume	8 Hrs
Unit-II. Ornamented and Resist Dyed Textiles	15 Hrs
Chapter No. 4 Pigment painted textiles Patachitra, Pichhavi and Phad Mordant painted textiles	8 Hrs

Kalamkari- Masulipatnam and Srikalahasti, Mata-ni- Pachhedi. Printed textiles Hand block printed, Ajrakh, Rogan, Sanganer, Bagh	
Chapter No. 5 Yarn resist Patola, Mashru, Ikat, Bandhana Fabric resist Sungadi, Bhandej, Laheriya	7 Hrs
Unit-III. Woven textiles and Embroidery	15 Hrs
Chapter No. 6 Woven textiles of India: Rajasthan – Kota Doria, Gujarat –Sujani, Tangaliya, Pachhedi Madhya Pradesh – Chanderi, Maheshwari, UttarPradesh – Brocades.	3 Hrs
Chapter No. 7 West Bengal – Dacca muslin, Balu Chari ,Tangail, Shawls from Kashmir, Assam and Nagaland, Maharashtra Paithani, Himroo , Andhra Pradesh and Telangana – Dharvaram, VenkatGiri, Gadwal and Narayan pet, Karnataka – Ilkal, moorkalmuru ,Tamil Nadu- Kanjeevaram	4 hrs
Chapter No. 8 Embroideries of India -kutch, ari, chikankari, kasuti, kashida, Chambaroomal	8 Hrs
Unit –IV Traditional Costumes of India:	15 Hrs
Chapter No. 9 Traditional Costumes of India: Jammu and Kashmir, Punjab, Haryana, Rajasthan, Gujarat, Maharashtra, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Orissa, West-Bengal, Assam, Nagaland, Meghalaya, Manipur, Arunachal, Mizoram, Tripura, India Uttar Pradesh, Madhya Pradesh, and Bihar	8 Hrs
Chapter No. 10 Traditional costumes of Kerala, Karnataka, Orissa, West-Bengal, Assam, Nagaland, Meghalaya, Manipur, Arunachal, Mizoram, Tripura, India Uttar Pradesh, Madhya Pradesh, and Bihar	7 Hrs

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-12)

Course Outcomes (COs) / Program Outcomes (POs)	1	2	3	4	5	6	7	8	9	10	11	12
Analyze traditional textiles based on the process of making it.		X		X	X						X	
Differentiates traditional textiles from different parts of the country								X	X		X	
Understands the techniques of traditional embroidery								X		X		X
Utilize traditional costume and textiles in contemporary context.			X	X				X				

Pedagogy - Theory

Formative Assessment + Summative assessment = 40+60=100 marks	
Formative Assessment	Weightage in Marks
Test 1	15
Test 2	15
Assignment + Project	5 + 5
Summative Assessment	60
Total	40 marks + 60 marks = 100 marks

Course Title:	Traditional textiles and costumes of India (Practical)	Practical Credits	2
Course No.	HSCC14 P	Contact Hours:	52/13Sessions
Practical Topics - 2 credits		13 - 15 weeks	
Unit I: Embroideries of India – 1. Kashida of Kashmir 2. Chamba of Himachal Pradesh 3. Phulkari and Bagh of Punjab 4. Chikankari of Uttar Pradesh 5. Kantha of Bengal			20 Hrs
Unit II: Embroideries of India 6. Embroideries of Manipur 7. Embroideries of Gujarat 8. Gold and Silver embroidery 9. Bead work			20 Hrs
Unit III: Preparation of portfolio • Pictures of traditional textiles with the descriptive analysis • Pictures of the traditional costumes with constructional details. • Samples of embroidery with its theoretical details			12 Hrs

Assessment

Formative +Summative Assessment = 25+25=50 marks	
Formative Assessment	Weightage in Marks
Record	10
Test 2	10
Assignment / project	5
Total	25 marks + 25 marks = 50 marks

References:	
1.	Bhatnagar P. (2004), Traditional Indian Costumes and Textiles, Abhishek Publications, New Delhi
2.	Chisti R.K., (2013) Sari tradition and beyond, Roli Publication
3.	Ghurye G. S. (1995), Indian Costume, Popular Prakashan, Bombay
4.	Irwin, J. H. & Hall, M. (1973). Indian Embroideries. Ahmedabad: Historic Textiles of India at Calico Museum of Textiles
5.	Karolia, A. (2019), Traditional India Handcrafted Textiles: Techniques, Processes and Designs Vol.I and II, Niyogi books, Delhi
6.	Pathak A. (2006), Indian Costumes, Roli Books, Mumbai
7.	Saraf, D. N. (1982). Indian Crafts. New Delhi: Vikas Publishing House Limited.
8.	Singh M. (2011) Traditional and Beyond Handcrafted Indian Textile, Roli Books Pvt. Ltd, New Delhi.
9.	Ritu Kumar, (2008). Costumes and Textiles of Royal India, Antique collectors club, India.
10.	John Gillow, Nicholas Barnard, (2008). Indian Textiles, Thames & Hudson, London
11.	Carl Kohler, (2012). A History of Costume, Dover Publications, INC, New York

Date

Course Coordinator

Subject Committee Chairperson



Government of Karnataka

Model Curriculum

Program Name	BA/B.Sc. Home Science		Semester	Sixth Sem
Course Title	Resource Management (Theory)			
Course No.	HSCC15 T	DSC	No. of Credits	4+2
Contact hours	60 Hrs		Duration of SEA/Exam	2.5 Hours
Formative Assessment Marks	40		Summative Assessment Marks	60

Course Pre-requisite(s): Certificate with minimum 45%.	
Course Outcomes (COs): At the end of the course the student should be able to <ul style="list-style-type: none"> Understand the available resources and develop the ability to evaluate the managerial efficiency and effectiveness in the family and other organization. Acquire an understanding of real-world challenges in HRM and identify measures to ensure a stable work environment efficiently through proper coordination, employee empowerment and training practices Critical thinking skills by developing a data-driven approach to improve business productivity and performance. Understand International Human Resource Management 	
Content	60 Hrs
Unit-I. Introduction to Resource Management	15 Hrs
Chapter No. 1 Resources: Definition and Classification – Human and Non-Human Resources, Renewable and Non-Renewable resources, Energy conservation and sustainability .	5 Hrs
Chapter No. 2 Management: Definition, Motivating factors, Managerial Process, Decision making and Problem Solving .	5 Hrs
Chapter No. 3 Money Management Budget plan, Account Keeping, Saving Process and Practice	5 Hrs

Unit-II. Resource management	15 Hrs
Chapter No. 5 Time Management Time plan, Tools, Process and practices	8 Hrs
Chapter No. 6 Energy Management ,Fatigue, Work simplification	7 Hrs
Unit-III. Ergonomics	15 Hrs
Chapter No. 8 Ergonomics – Concept, Definition, Characteristics of places, things and activities. Human Factors, Principles of Ergonomics, Occupational factors affecting the worker	7 Hrs
Chapter No. 9 – Anthropometry Definition and Applicability of Stature – Eye height, Elbow height, Sitting height, Shoulder and Elbow breadth, Thigh clearance and Popliteal height, Maximum and Minimum Vertical and Horizontal reach	8 Hrs
Unit-IV. Consumer Education	15 Hrs
Chapter No. 8 Definition of a consumer, Objects and Purpose of Consumer Education, Role of consumers in the economy, Types of consumer problems – products and service related, Causes and solutions	7 Hrs
Chapter No. 9 Consumer Protection, Consumer rights and responsibilities, Consumer Protection Act – Salient Features, Limitations and Guidelines for filling consumer complaint	8 Hrs

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-12)

Course Outcomes (COs) / Program Outcomes (POs)	1	2	3	4	5	6	7	8	9	10	11	12

Understand the available resources and develop the ability to evaluate the managerial efficiency and effectiveness in the family and other organization		X		X	X						X	
Acquire an understanding of real-world challenges in HRM and identify measures to ensure a stable								X	X		X	

work environment efficiently through proper coordination, employee empowerment and training practices												
Critical thinking skills by developing a data-driven approach to improve business productivity and performance								X		X		X
Understand International Human Resource Management			X	X				X				

Pedagogy - Theory

Formative Assessment + Summative assessment = 40+60=100 marks	
Formative Assessment	Weightage in Marks
Test 1	15
Test 2	15
Assignment + Project	5 + 5
Summative Assessment	60
Total	40 marks + 60 marks = 100 marks

Course Title:	Resource Management (Practical)	Practical Credits	2
Course No.	HSCC16 P	Contact Hours:	45/13Sessions
Practical Topics - 2 credits		13 - 15 weeks	
Unit I: Preparation of time plans for self			7 Hrs
Unit II: Budget and banking procedures			10 Hrs
Unit III: Standards of Weights and Measures Act, 1976, ISI, BIS, FPO, AGMARK, ISO, Eco mark, Wool mark, Silk mark, Cotton mark, Handloom mark BEE star labeling, FSSAI, Codex, HACCP, Food laws			20 Hrs
Unit IV: Anthropometry and work simplification			15 Hrs

Assessment

Formative +Summative Assessment = 25+25=50 marks	
Formative Assessment	Weightage in Marks
Record	10
Test 2	10
Assignment / project	5
Total	25 marks + 25 marks = 50 marks

References:	
1.	Umesh Prasad, (2011). Essential of Ergonomics. Sonali Publications, New Delhi
2.	Sawhney, H. K. & Mital, M. (2007). Family Finance & Consumer Studies. Elite Publishing House Pvt. Ltd
3.	Engel, J.F. and Black, Well R.D. (1990). Consumer Behaviour, 4 th Edition. Holt Sanders International Edition
4.	Seetharaman, P. and Sethi, M. (2001). Consumerism: Strength and Tactics. New Delhi, CBS Publishers
5.	Jan Dul and Bernard Weerdmeester, (2008). Ergonomics for Beginners – A quick reference guide, CRC Press, New York
6.	Gross. I. H.,Crandall,E.W.andKnoll,M.M.(1980).Management for Modern Families. New Jersey: Prentice Hall Inc
7.	Bhargava, B. (2005). <i>Family Resource Management and Interior Decoration</i> , Jaipur: Apple Printer and V. R. Printers
8.	Varghese, M. A., Ogale. N. and Srinivasan K. (1985). <i>Home Management</i> . New Delhi: New Age International (P) Limited, Publishers (ISBN 13: 9780852269046

Date

Course Coordinator

Subject Committee Chairperson

2.	Khan M.I., (2014). Industrial Ergonomics. PHI Learning Private Limited, New Delhi
3.	Umesh Prasad, (2011). Essential of Ergonomics. Sonali Publications, New Delhi
4.	Manjit Kaur Chauhan, (2015). Ergonomics Practical Manual for Beginners. Authors press, New Delhi.
5.	Tayyari. F and Smith J.L, (1997). Occupational Ergonomics – Principles and Applications, Chapman and Hall, Tokyo
6.	Jan Dul and Bernard Weerdmeester, (2008). Ergonomics for Beginners – A quick reference guide, CRC Press, New York.

Date

Course Coordinator

Subject Committee Chairperson

**Curriculum
of
B.Sc. with
Nutrition and Dietetics
as one Major
5th and 6th Semester**

KARNATAKA STATE HIGHER EDUCATION COUNCIL

Sub-committee members of B.Sc. Nutrition and Dietetics

1.	Dr. Sangeeta Pandey -Convenor Mount Carmel College
2.	Dr. Geetha Santhosh Mount Carmel College
3.	Dr. V. Padma Mount Carmel College
4.	Dr Usha Devi C -Principal Maharani Cluster University
5.	Dr Asha G Maharani Cluster University
6.	Dr Vidhya K Maharani Cluster University

**Content of courses for B.Sc. with Nutrition & Dietetics as Major subject & B.Sc. (Hons)
Nutrition & Dietetics II A Model**

Semester	Course Code.	Category of course	Theory/ Practical	Credits	Paper Titles	Marks	
						S. A	I.A
I	ND T C 1.1	DSC 1	Theory	4	Fundamentals of nutrition	60	40
	ND P C 1.1	DSC 1	Practical	2	Fundamentals of nutrition	25	25
	ND OE 1	OE 1	Theory	3	Fundamentals of food and health / Health lifestyle and nutrition	60	40
II	ND T C 2.1	DSC 2	Theory	4	Principles of Food Science and Preservation	60	40
	ND P C 2.1	DSC 2	Practical	2	Principles of Food Science and Preservation	25	25
	ND OE 2	OE 2	Theory	3	Food safety and Hygiene/ Food Adulteration	60	30
Exit option with certificate (50 credits)							
III	ND T C 3.1	DSC 3	Theory	4	Nutrition through life span	60	40
	ND P C 3.1	DSC 3	Practical	2	Nutrition through life span	25	25
	ND OE 3	OE 3	Theory	3	Traditional Foods and Health/ Nutritional Assessment	60	40
IV	ND T C 4.1	DSC 4	Theory	4	Human Physiology	60	40
	ND P C 4.1	DSC 4	Practical	2	Human Physiology	25	25
	ND OE T 4	OE 4	Theory	3	Nutrition in weight management/ Diet in life style disorder	60	40
Exit Option with Diploma (100 credits) or choose any one of the core subjects as major and the other as minor							
V	ND T C 5.1	DSC5	Theory	4	Clinical Nutrition & Dietetics – 1	60	40
	ND P C 5.1	DSC5	Practical	2	Clinical Nutrition & Dietetics – 1	25	25
	ND T C 5.2	DSC 6	Theory	4	Food Microbiology	60	40
	ND P C 5.2	DSC 6	Practical	2	Food Microbiology	25	25

VI	ND T C 6.1	DSC 8	Theory	4	Clinical Nutrition & Dietetics – II	60	40
	ND P C 6.1	DSC 8	Practical	2	Clinical Nutrition & Dietetics – II	25	25
	ND T C 6.2	DSC 9	Theory	4	Principles and practices in Public Health Nutrition	60	40
	ND TC P 2	DSC 10	Practical	2	Principles and practices in Public Health Nutrition	25	25
	Exit option with Bachelor of Science BSc Degree (142credits) or continue studies with the Major						



Government of Karnataka

Model Curriculum

Program Name	B.Sc. Nutrition & Dietetics		Semester	Fifth Sem
Course Title	Clinical Nutrition & Dietetics – I (Theory)			
Course No.	ND T C 5.1	DSC 5	No. of Credits	4 +2
Contact hours	60 Hrs		Duration of SEA/Exam	2.5 Hours
Formative Assessment Marks	40		Summative Assessment Marks	60

Course Outcomes (COs): At the end of the course the student should be able to	
<ol style="list-style-type: none"> 1. Know the role of dietetics in preventive, promotive and curative health care 2. Understand the clinical condition with relevant data (laboratory, anthropometry, pharmacology) 3. Develop skills to make appropriate dietary modifications in clinical conditions. 	
Content	60 Hrs
Unit – 1	15 Hrs
Chapter No. 1: Introduction to Diet therapy – Objectives. Nutrition assessment in clinical set up, Nutrition Care Process (ADIME). Role of dietician, responsibilities, code of ethics.	5 Hrs
Chapter No. 2: Therapeutic meal planning - factors to be considered, food groups, exchange list.	5 Hrs
Chapter No. 3: Types of hospital diet; modification of normal diet to therapeutic diet,	5 Hrs
Unit – 2:	15 Hrs
Chapter No. 4: Weight management: Underweight, overweight, etiology, assessment and treatment, dietary guidelines, challenges – eating disorders and fad diets.	10 Hrs
Chapter No. 5: Inborn errors of metabolism – PKU, Galactosemia, GSD, MSUD	5 Hrs

Unit -3:	15 Hrs
Chapter No. 7: Infections and febrile conditions: host defence mechanism Dietary management in acute and chronic fever – typhoid, malaria, tuberculosis.	8 Hrs
Food sensitivity: Definition, diagnosis, nutrition management – allergens.	7 Hrs
Unit -4	15 Hrs
Chapter No. 8: Gastrointestinal disorders: Diarrhoea, Constipation, GERD, Peptic ulcers, Irritable Bowel Syndrome, Inflammatory Bowel Disease (Lactose intolerance and gluten intolerance).	8 Hrs
Chapter No. 9: Liver & biliary system: Viral hepatitis, Cirrhosis, cholecystitis, cholelithiasis, acute & chronic pancreatitis	7 Hrs

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-12)

Course Outcomes (COs) / Program Outcomes (POs)	1	2	3	4	5	6	7	8	9	10	11	12
Know the role of dietetics in preventive, promotive and curative health care	X						X					
Understand the clinical condition with relevant data (laboratory, anthropometry, pharmacology)					X							
Develop skills to make appropriate dietary modifications in clinical Conditions		X									X	

Pedagogy

Lecture, demonstration, hands on learning through projects, presentations, hospital dietary visits, case studies, workshops.

Assessment

Formative Assessment + Summative assessment = 40+60=100 marks	
Formative Assessment	Weightage in Marks
Test 1	10
Test 2	10
Presentation / Assignment	10
Project quiz	10
Summative Assessment	60
Total	40 marks + 60 marks = 100 marks

Course Title:	Clinical Nutrition & Dietetics I (Practical)	Practical Credits	2
Course No.	ND P C 5.1	Contact Hours:	52 Hrs
Practical Topics - 2 credits		13 - 15 weeks	
Diet planning in			
1. Typhoid			
2. Tuberculosis			
3. GI condition – peptic ulcer, lactose and gluten intolerance			
4. Overweight			
5. Underweight			
6. Cirrhosis			
7. Hepatitis			

Assessment

Formative +Summative Assessment = 25+25=50 marks	
Formative Assessment	Weightage in Marks
Internal Assessment	25
Summative Assessment (ESE)	25
Total	25 marks + 25 marks = 50 marks

References:	
1.	Krause MV and Mahan, Food (2008), Nutrition And Diet Therapy, WS Saunders Co.,12th edition
2.	Antia, F.P. (2005): Clinical Nutrition and Dietetics, Oxford University Press, Delhi
3.	Robinson,C.H;Lawler,M.R.Chenoweth,W.L;and Garwick,A.E (1986):Normal and Therapeutic Nutrition,17th Ed., Mac Millan Publishing Co
4.	Shills ME and Shike M (2006), Modern Nutrition in Health and Disease, 10th edition, Lippincott Williams and Wilkins

Date

Course Coordinator

Subject Committee Chairperson



Government of Karnataka

Model Curriculum

Program Name	B.Sc. Nutrition & Dietetics		Semester	Fifth Sem
Course Title	Food Microbiology (Theory)			
Course No.	ND T C 5.2	DSC 6	No. of Credits	4+2
Contact hours	60 Hrs		Duration of SEA/Exam	2.5 Hours
Formative Assessment Marks	40		Summative Assessment Marks	60

Course Outcomes (COs): At the end of the course the student should be able to <ol style="list-style-type: none"> 1. Understand about the origin of microbiology and characteristics of microorganisms. 2. Gain knowledge on factors affecting growth and death of microorganisms 3. Learn about microbial food spoilage and food-borne illnesses 4. Acquire knowledge on the role of food microbiology in biotechnology 	
Content	60 Hrs
Unit – 1 Introduction to Microbiology	15 Hrs
Chapter No. 1: Scope of Microbiology, Food Microbiology: its origins - historical roots (in brief), Germ theory of Disease.	5 Hrs
Chapter No. 2: Naming, Classification and identification, morphological characteristics of Bacteria, Fungi and viruses.	5 Hrs
Chapter No. 3: Growth and cell division, Bacterial Growth, Culturing bacteria- (Methods of obtaining pure cultures, culture media, maintaining cultures).	5 Hrs
Unit – 2: Factors affecting microbial growth and death	15 Hrs
Chapter No. 4: Factors affecting the growth of micro-organisms- temperature, water activity, pH, oxygen, redox and nutritional factors; interaction of factors and between organisms.	5 Hrs
Chapter No. 5: Death of micro-organisms and microbial populations- a) Heat, preservation of foods (Appertization, Pasteurization).	10 Hrs

b) Chemical agents- factors influencing activity of sanitizers, preservatives, Hurdle effect. c) Radiation-preservation, d) High pressure (brief).	
Unit -3: Food Spoilage and Food borne disease	15 Hrs
Chapter No. 7: Nature, Causes, Contamination, Composition of spoilage, Changes in foods caused by spoilage organisms Spoilage of important food commodities and food products-Meat, Fish, Egg and Milk, Fruits and Vegetables, Cereals. Influence of processing.	8 Hrs
Chapter No. 8: Genetically modified foods Role of Microorganisms in fermented foods- Fermented-baked food preparations, Fermented vegetable foods, soyabean products, dairy products, other meat products, economically important fermentation products (Beer & Wine).	7 Hrs
Unit –IV Food Poisoning	15 Hrs
Chapter No. 1: Cause of disease, investigations and origins of food poisoning outbreaks, importance of food poisoning to individual and economy, control. Food poisoning bacteria causing: 1. Infections- Salmonella, Shigella, E. coli, Vibrio cholerae 2. Intoxications- Staphylococcus aureus, Clostridium Botulinum 3. Viruses- Hepatitis A .	10 Hrs
Chapter No. 2: Chapter No. 6: Definition of FSSAI, HACCP- A Food Safety Assurance system.	5 Hrs

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-12)

Course Outcomes (COs) / Program Outcomes (POs)	1	2	3	4	5	6	7	8	9	10	11	12
Understand about the origin of microbiology and characteristics of microorganisms						X						
Gain knowledge on factors affecting growth and death of microorganisms						X						
Learn about microbial food spoilage and food-borne illnesses						X						
Acquire knowledge on the role of food microbiology in biotechnology						X	X					

Pedagogy

Lecture, demonstration, hands on learning through projects, presentations, case studies, workshops.

Assessment

Formative Assessment + Summative assessment = 40+60=100 marks	
Formative Assessment	Weightage in Marks
Test 1	10
Test 2	10
Presentation / Assignment	10
Project quiz	10
Summative Assessment	60
Total	40 marks + 60 marks = 100 marks

Course Title:	Food Microbiology (Practical)	Practical Credits	2
Course No.	ND P C 5.2	Contact Hours:	52 Hrs
Practical Topics - 2 credits		13 - 15 weeks	
<div><div>1. Introduction to the microbiology lab</div><div>Safety guidelines, Good microbiological laboratory practice (GMLP), Resources (equipment, apparatus, materials)</div><div>2. Microscopy: Using microscope- Compound microscope, Electron microscope.</div><div>3. a.-Stained preparations – identification of fungi</div><div>b. Preparing a smear, Simple stain/Differential stain (Gram’s staining method)</div><div>4. Sterilization, and disinfection- Use of autoclave</div><div>5. Spoilage of foods from different food groups – Observation of changes under the microscope, Identification of food spoilage and deterioration under different storage conditions, MPN method (Demonstration)</div><div>6. Preparation of fermented products and analyzing microbial load in:</div><div>a. Fermented products- idly/ kimchi/Sauerkraut/fermented rice (pazhaya kanji)</div></div>			

7. Visit to industry to understand – quality operation cycle of commercial kitchen / Milk processing unit / any food industry to understand HACCP
8. Safe food-waste disposal strategies (Case studies)

Assessment

Formative +Summative Assessment = 25+25=50 marks	
Formative Assessment	Weightage in Marks
Internal Assessment	25
Summative Assessment (ESE)	25
Total	25 marks + 25 marks = 50 marks

References:	
1.	Norman G. Marriott, (1985) Principles of sanitation, Van Nostrand Reinhold company, Newyork.
2.	Mario Stanga, (2010) Sanitation: Cleaning and Disinfection in the Food Industry, Wiley.
3.	Y. H. Hui, L. Bernard Bruinsma, J. Richard Gorham, Wai-Kit Nip, Phillip S. Tong, Phil Ventresca (2002) Food plant sanitation, CRC Press.
4.	Y. H. Hui, (2014) Plant sanitation for food processing and food service, CRC Press.
5.	Jay, J. M., Loessner, M. J., & Golden, D. A. (2008). Modern food microbiology. Springer Science & Business Media.
6.	Bibek Ray (2014) Fundamental Food Microbiology. CRC press,

Date

Course Coordinator

Subject Committee Chairpe



Government of Karnataka

Model Curriculum

Program Name	B.Sc. Nutrition & Dietetics		Semester	Sixth Sem
Course Title	Clinical Nutrition & Dietetics – II (Theory)			
Course No.	ND T C 6.1	DSC 8	No. of Credits	4
Contact hours	60 Hrs		Duration of SEA/Exam	2.5 Hours
Formative Assessment Marks	40		Summative Assessment Marks	60

Course Outcomes (COs): At the end of the course the student should be able to <ol style="list-style-type: none"> 1. Integrate dietetics and counselling in preventive, promotive and curative health care 2. Understand the clinical condition with relevant data (laboratory, anthropometry, pharmacology) 3. Utilize and demonstrate skills to make appropriate dietary modifications in clinical conditions 	
Content	60 Hrs
Unit – I	15 Hrs
Chapter No. 1: Nutritional counseling – objectives, importance, process.	7 Hrs
Chapter No. 2: Nutrition support – Enteral and parenteral nutrition overview. Enteral and parenteral nutrition: access routes, formulas, challenges.	8 Hrs
Unit – II	15 Hrs
Chapter No. 3: Diabetes: Classification, Risk factors, Diagnosis, Complications, Dietary management – Type 1 & Type 2.	7 Hrs
Chapter No. 4: Renal: Etiology, Dietary management – Glomerulonephritis, nephrotic syndrome, chronic kidney disease, dialysis, renal calculi.	8 Hrs

Unit -III	15 Hrs
Chapter No. 5: Starvation, Stress, Trauma. Burns – Assessment, Fluid and electrolyte repletion, nutrition management.	7 Hrs
Chapter No. 6 Cardiovascular disorder: Atherosclerosis, Dyslipidemia, hypertension – etiology, risk factors, dietary management.	8 Hrs
Unit -: IV	15 hrs.
Chapter No. 7: Nutrient, drug interactions: Effect of drug on food intake; food and nutrient on drugs .	7Hrs
Chapter No. 8: Cancer: Risk factors, prevention, and dietary management	8 Hrs

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-12)

Course Outcomes (COs) / Program Outcomes (POs)	1	2	3	4	5	6	7	8	9	10	11	12
Integrate dietetics and counselling in preventive, promotive and curative health care	X						X					
Understand the clinical condition with relevant data (laboratory, anthropometry, pharmacology)					X							
Utilise and demonstrate skills to make appropriate dietary modifications in clinical conditions		X									X	

Pedagogy

Lecture, demonstration, hands on learning through projects, experiments, hospital dietary visits, case studies, workshops.

Assessment

Formative Assessment + Summative assessment = 40+60=100 marks	
Formative Assessment	Weightage in Marks
Test 1	10
Test 2	10

Presentation / Assignment	10
Project quiz	10
Summative Assessment	60
Total	40 marks + 60 marks = 100 marks

Course Title:	Clinical Nutrition & Dietetics II (Practical)	Practical Credits	2
Course No.	ND P C 6.1	Contact Hours:	52 Hrs
Practical Topics - 2 credits		52 hrs/13 sessions	
<div>1. Type 2 Diabetes</div> <div>2. Type 1 DM (carbohydrate counting)</div> <div>3. Cancer</div> <div>4. Chronic kidney disease</div> <div>5. Renal Calculi</div> <div>6. Burns</div> <div>7. Hypertension</div>			

Assessment

Formative +Summative Assessment = 25+25=50 marks	
Formative Assessment	Weightage in Marks
Internal Assessment	25
Summative Assessment (ESE)	25
Total	25 marks + 25 marks = 50 marks

References:	
1.	Krause MV and Mahan, Food (2008), Nutrition and Diet Therapy, WS Saunders Co.,12th edition
2.	Antia, F.P. (2005): Clinical Nutrition and Dietetics, Oxford University Press, Delhi
3.	Robinson, C.H;Lawler, M.R. Chenoweth, W.L; and Garwick,A.E (1986):Normal and Therapeutic Nutrition,17th Ed., Mac Millan Publishing Co
4.	Shills ME and Shike M, Modern Nutrition in Health and Disease, 10th edition, Lippincott Williams and Wilkins, 2006

Date

Course Coordinator

Subject Committee Chairperson



Government of Karnataka

Model Curriculum

Program Name	B.Sc. Nutrition & Dietetics		Semester	Sixth Sem
Course Title	Principles and Practices in Public Health Nutrition (Theory)			
Course No.	ND T C 6.3	DSC 10	No. of Credits	4
Contact hours	60 Hrs		Duration of SEA/Exam	2.5 Hours
Formative Assessment Marks	40		Summative Assessment Marks	60

Course Outcomes (COs): At the end of the course the student should be able to <ol style="list-style-type: none"> 1. Understand the definition, utility and applications of epidemiology in nutritional sciences. 2. Understand the multi-faceted nature of problems in public nutrition. 3. Gain understanding about the food and nutrition security in India 	
Content	60 Hrs
Unit – 1 Concept of Public Health and Nutritional Epidemiology	15 Hrs
Chapter No. 1: Introduction to Nutritional Epidemiology and Public health Nutrition. Scope and principles of public health Nutrition – Definition, aims and objectives. Multidisciplinary nature of public nutrition, Role of public nutritionist.	6 Hrs
Chapter No. 2: National and International agencies in community nutrition- Role of WHO, UNICEF, UNDP, FAO, UNESCO, ILO, WORLD BANK, Red Cross, CARE.	9 Hrs
Unit – 2: Nutritional problems and Assessment	15 Hrs
Chapter No. 3: Etiology, prevalence, clinical features, and preventive strategies of Protein energy malnutrition. Dual Nutrition Burden: i. Under nutrition and Over nutrition Nutritional anemia's, Vitamin A deficiency, Iodine deficiency disorders Obesity, coronary heart disease, Diabetes Mellitus.	7 Hrs
Chapter No 4 Assessment of Nutritional Status in community a. Anthropometric Assessment: Measurement of body weight, stature, mid upper arm circumference, standards (NCHS - weight for height, weight for age. Clinical Assessment: clinical signs of nutritional disorders c. Dietary Assessment: Family dietary survey, Assessment of dietary intake of individuals.	8 Hrs

Unit -3: Nutrition Security and Education	15 Hrs
Chapter No. 5: Food and Nutrition Security: Basic concepts & Policies. Overview of the on-going public sector programmes for improving food and nutrition security. Identification and measurement of food insecurity (FIA, ISMAP) Social capital and coping mechanism for food insecurity.	8 Hrs
Chapter No. 6: Objectives, principles and scope of nutrition and health education and promotion Links with health promotion Purpose, advantage and constraints of nutrition education Framework for planning nutrition promotion and education programs for the public Information, education and communication	7 Hrs
Unit -IV	15 Hrs
Chapter No. 7: National Nutrition Policy and Programmes - Integrated Child Development Services (ICDS) Scheme, Midday Meal Programme (MDMP)	7 Hrs
Chapter No. 8: National programmes for prevention of Anaemia, Vitamin A deficiency, Iodine Deficiency Disorders National Programme for Prevention and Control of Cancers, Diabetes, Cardiovascular Diseases and	8 Hrs

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-12)

Course Outcomes (COs) / Program Outcomes (POs)	1	2	3	4	5	6	7	8	9	10	11	12
Understand the definition, utility and applications of epidemiology in nutritional sciences	X					X						
Understand the multi-faceted nature of problems in public nutrition.					X							
Gain understanding about the food and nutrition security in India.		X						X			X	
Develop and prepare different types of visual aids suitable to community nutrition programmes.				X								
Gain practical experience in imparting the knowledge of nutrition to the community										X		

Pedagogy

Lecture, demonstration, hands on learning through projects, experiments, field visits, case studies, workshops.

Assessment

Formative Assessment + Summative assessment = 40+60=100 marks	
Formative Assessment	Weightage in Marks
Test 1	10
Test 2	10
Presentation / Assignment	10
Project quiz	10
Summative Assessment	60
Total	40 marks + 60 marks = 100 marks

Course Title:	Principles and Practices in Public Health Nutrition (Practical)	Practical Credits	2
Course No.	ND P C 6.3	Contact Hours:	52 Hrs
Practical Topics - 2 credits		13 weeks	
<div><div>1. Preparation of audio-visual aid for</div><div><div>a. PEM</div><div>b. Vitamin A deficiency</div><div>c. Anemia</div></div><div>2. Preparation of a low-cost recipes for PEM, Vitamin A deficiency and Anemia</div><div>3. Anthropometric and dietary assessment</div><div>4. Organize and conduct a nutrition awareness program on Anemia/ Vitamin A</div></div>			

Assessment

Formative +Summative Assessment = 25+25=50 marks	
Formative Assessment	Weightage in Marks
Internal Assessment	25
Summative Assessment (ESE)	25
Total	25 marks + 25 marks = 50 marks

References:	
1.	Sheila ChanderVir (2011). Public Health Nutrition in developing countries – part I and II, Woodhead Publishing India, Pvt Ltd
2.	Nutrition in Public Health - A handbook for developing programmes and services.3rd edition, Sari Edelstein, Jones and Bartlett learning, 2011
3.	Nutrition Epidemiology- An Introduction
4.	Wadhava, A. and Sharma, S. (2003). Nutrition in community. New Delhi : Elite publication house pvt. Ltd
5.	Annual reports – Dept. of agriculture and co-operation –Ministry of agriculture, Govt of India
6.	Gopaldas, J. and Seshadri, S.(1987). Nutrition monitoring and assessment. New Delhi: Oxford University Press.
7.	Park, J.E. and Park, K. (1997). Text book of preventive and social medicine (15thed.). Jabalpur: Banarasidas Bhanot.
8.	Samanta, R. K. (1991). Manual on instructional aids for teachingexcellence. New Delhi: Mittal Publications
9.	Shukla, P.K. (1982). Nutritional problems of India. New Delhi: PrenticeHall India Pvt. Ltd
10.	Bamji MS, Krishnaswamy K and Brahman GNV (Eds) (2016). Textbook of Human Nutrition, 4 thedition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi, Chapter 34, pg 563 – 575

Date

Course Coordinator

Subject Committee Chairperso