

**UNIVERSITY OF MUMBAI**

No.UG/ICC/2016-17/162

MUMBAI- 400 032

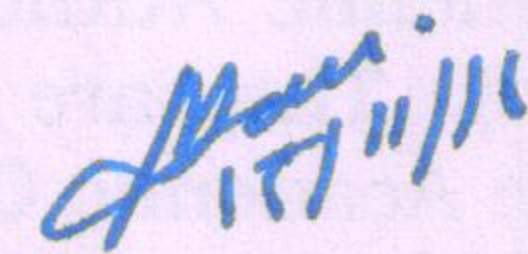
16 November, 2016

The Principal,  
College of Home Science,  
Nirmala Niketan,  
49, New Marine Line,  
**MUMBAI- 400 020.**

Madam,

I am to invited your attention to the Syllabi relating to the Bachelor of Science (Home Science) degree program vide this office Circular No. UG/316 of 2011, dated 27<sup>th</sup> September, 2011 and to inform you that the recommendation made by the Ad-hoc Board of Studies in Home Science at its meeting held on 30<sup>th</sup> June, 2016 has been accepted by the Academic Council at its meeting held on 14<sup>th</sup> July, 2016 vide item No.4.51 and that in accordance therewith, the revised syllabus as per the Choice Based Credit System for F.Y. B.Sc. Home Science (Sem. I & II), which is available on the University's web site ([www.mu.ac.in](http://www.mu.ac.in)) and that the same has been brought into force with effect from the academic year 2016-17.

Yours faithfully,



(Dr.M.A.Khan)

REGISTRAR

**A.C/4.51/14/07/2016**



# UNIVERSITY OF MUMBAI



**Revised Syllabus  
SEMESTER I & SEMESTER II  
Program: B.Sc.  
Course: Home Science**

(Choice Based Semester Grading System  
with effect from the  
Academic Year 2016–2017)

## **PREAMBLE**

Home Science is an interdisciplinary science, which offers holistic and socially-relevant educational programmes. Home Science has emerged as a full-fledged scientific course in which overall improvement in the quality of life of the individual, family, and community is sought. There is a prominent emphasis on professional competence and sensitivity to the needs of society. The degree courses are B.Sc. (Home Science), M.Sc. (Home Science) and Ph.D. (Home Science). The four main areas of specialization are as follows:

1. Foods, Nutrition and Dietetics
2. Human Development
3. Textile and Fashion Technology
4. Community Resource Management

The objectives of the Home Science curriculum are as follows:

1. To impart knowledge and facilitate the development of skills and techniques in the different areas of Home Science (namely 'Foods, Nutrition and Dietetics'; 'Human Development'; 'Textile and Fashion Technology'; and 'Community Resource Management') required for personal, professional and community advancement.
2. To inculcate in students, values and attitudes that enhance personal and family growth and to sensitize them to various social issues for the development of a humane society.
3. To promote in students a scientific temper and competencies in research to enable contributions to the national and international knowledge base in Home Science and allied fields.
4. In sum, to empower our women students such that they are able to effect positive changes at multiple levels.

## SEMESTER I

COURSE CODE	COURSE TYPE	TITLE OF THE COURSE	WORKLOAD		NO. OF CREDITS	
			L	P	T	P
USHS101	Core Subject	Food Science	3	-	3	-
USHS102	Core Subject	Child Development	3	-	3	-
USHS103	Core Subject	Fibre to Fabric	3	-	3	-
USHS104	Core Subject	Aesthetics in Interiors	3	-	3	-
USHS105	Foundation Course - Ability Enhancement Course 1	Contemporary Social Issues *Computer Application (Value-Added)	3	-	2	-
USHSP101	Core Subject Practical	Food Science	-	3	-	2
USHSP102	Core Subject Practical	Pattern Making and Styling for Kidswear	-	3	-	2
USHSP103	Core Subject Practical	Aesthetics in Interiors	-	2	-	2
					<b>14</b>	<b>6</b>

♦ **Additional fee will be charged for the computer classes. Unless a student passes the Computer Examination, the student will not get the credits of the said paper.**

Course Code	Title of the Course	Lectures / week	Marks allotted	Credits for the Course
USHS101	Food Science	3	100	3

**Objectives:**

1. To acquire knowledge of various concepts of Food Science, its facts and principles.
2. To understand nutritional importance of various food groups.
3. To develop the ability to select and apply the principles of Food Science to practical situations.

Unit	Course Content	Lectures
I	<p><b>Introduction to food science</b></p> <ul style="list-style-type: none"> <li>• <b>Concept of Food Science and Nutrition.</b></li> <li>• <b>Reasons for cooking foods.</b></li> <li>• <b>Cooking Methods-Dry heat methods and Moist heat methods.</b></li> </ul> <p><b>Introduction to various food groups - Classification, structure, nutritive value, selection,, storage and elementary principles of cooking involved in the following food groups:</b></p> <ol style="list-style-type: none"> <li>a. Cereals</li> <li>b. Pulses &amp; Legumes</li> <li>c. Nuts &amp; Oilseed</li> </ol>	15
II	<p><b>Introduction to various food groups - Classification, structure, nutritive value, selection, storage and elementary principles of cooking involved in the following food groups:</b></p> <ol style="list-style-type: none"> <li>d. Fats &amp; Oils</li> <li>e. Sugar &amp; Jaggery</li> <li>f. Vegetables &amp; Fruits</li> </ol>	15
III	<p><b>Introduction to various food groups - Classification, structure, nutritive value, selection, storage and elementary principles of cooking involved in the following food groups:</b></p> <ol style="list-style-type: none"> <li>g. Milk</li> <li>h. Eggs</li> <li>i. Flesh Foods-Fish, Meat &amp; Poultry</li> <li>j. Spices &amp; Condiments</li> </ol>	15

**References :**

- Arora K. (1993). Theory of Cookery. New Delhi: Frank Bros. and Co.  
 Bennion, M. (1975). Introductory Foods. New York:Mac Millan Publishing Co. Inc.  
 Manay, N.S. (1995). Food Facts and Principles. New Delhi: New Age International  
 Macwilliam M. (1980). Food Fundamentals. New York: John Wiley & Sane.  
 Srilakshmi. B. (1997) Food Science. New Delhi:New Age  
 Swaminathan, M. (1991). Food Science & Experimental Foods. Madras: Ganesh & Co.

Course Code	Title of the Course	Lectures / week	Marks allotted	Credits for the Course
USHS102	Child Development	3	100	3

**Objectives:**

1. To introduce students to the scientific study of childhood and the principles of child development.
2. To help students learn about the key features of physical, motor, cognitive, language, social and emotional development in childhood, covering the period from conception to late childhood.
3. To create an awareness of the various factors that influence and stimulate growth and development during the prenatal period, infancy, toddlerhood, preschool years, and school years.

Unit	Course Content:	Lectures
I	<p><b>Introduction, Prenatal Development, and Infancy</b></p> <ul style="list-style-type: none"> <li>(a) Importance of studying children; status of children in the world and in India; methods of studying children</li> <li>(b) Concept of development, principles and issues of development (nature and nurture; continuity and discontinuity; early experience versus later experience; stages or gradual development; role of context/culture)</li> <li>(c) Prenatal development <ul style="list-style-type: none"> <li>○ Stages of prenatal development and mother's experience of pregnancy</li> <li>○ Teratology and hazards to prenatal development</li> <li>○ Prenatal care</li> <li>○ Cultural beliefs about pregnancy</li> </ul> </li> <li>(d) Birth and the postpartum period <ul style="list-style-type: none"> <li>○ Birth process and complications</li> <li>○ Physical, emotional, &amp; psychological adjustments in the postpartum period</li> <li>○ Bonding</li> </ul> </li> <li>(e) Physical and motor development <ul style="list-style-type: none"> <li>○ Growth patterns: cephalocaudal &amp; proximodistal patterns</li> <li>○ Body growth and change in infancy, early childhood, and middle and late childhood</li> <li>○ Early experience and the brain; development of the brain in childhood</li> <li>○ Reflexes, gross motor skills, and fine motor skills</li> </ul> </li> </ul>	15
II	<p><b>Cognitive and Language Development in Childhood</b></p> <ul style="list-style-type: none"> <li>(a) Cognitive development <ul style="list-style-type: none"> <li>○ The course of infant and toddler cognitive development (Piaget's theory and extensions)</li> </ul> </li> </ul>	15

	<ul style="list-style-type: none"> <li>○ Characteristics of preschooler's thought (Piaget's and Vygotsky's theories and extensions)</li> <li>○ Preschooler's attention and memory abilities</li> <li>○ Social cognition in preschool years</li> <li>○ Cognitive development in school years (Piaget's &amp; Vygotsky's theories and extensions)</li> <li>○ Concept of intelligence; individual differences in intelligence</li> </ul> <p>(b) Language development</p> <ul style="list-style-type: none"> <li>○ Defining language</li> <li>○ Language development in infancy, early childhood, and middle and late childhood</li> <li>○ Multilingualism: advantages and challenges</li> <li>○ How parents and the family environment can facilitate language development</li> </ul>	
III	<p><b>Social and Emotional Development in Childhood</b></p> <p>(a) Theoretical perspectives (Freud, Erikson, and extensions)</p> <p>(b) Social and emotional development in infancy</p> <ul style="list-style-type: none"> <li>○ Origins of reciprocity</li> <li>○ Attachment, stranger distress, separation anxiety</li> <li>○ Temperament</li> <li>○ Sensitive period hypothesis</li> </ul> <p>(c) Social and emotional development in toddlerhood</p> <ul style="list-style-type: none"> <li>○ Views of socialization</li> <li>○ Growth of sociability</li> <li>○ Awareness of self and others</li> <li>○ Parent-toddler relations</li> </ul> <p>(d) Social developmental changes in early childhood</p> <ul style="list-style-type: none"> <li>○ Child's expanding world</li> <li>○ Self-control and self-management</li> <li>○ The developing self</li> </ul> <p>(e) Social development in middle and late childhood</p> <ul style="list-style-type: none"> <li>○ Development of the self</li> <li>○ Peer relations</li> <li>○ Children in school</li> <li>○ Functions of play</li> </ul> <p>(f) Family influences</p> <ul style="list-style-type: none"> <li>○ Quality of care</li> <li>○ Parenting styles and their influences</li> <li>○ Sibling relationships</li> </ul> <p>(g) Linkages between family and peer relations</p>	15

**References:**

- DeHart, G. B., Sroufe, L. A., & Cooper, R. G. (2004). *Child development: Its nature and course* (5th ed.). NY: McGraw-Hill.
- Santrock, J. W. (2013). *Child development* (14<sup>th</sup> ed.). NY: McGraw-Hill.
- Sroufe, L. A., Cooper, R. G., & DeHart, G. B. (1992). *Child development: Its nature and course*. NY: McGraw-Hill.

Course Code	Title of the Course	Lectures / week	Marks allotted	Credits for the Course
USHS103	Fibre to Fabric	3	100	3

**Objectives:**

1. To introduce students to the basics of textile fibers, yarns and fabrics.
2. To give an insight into the new developments in textiles.
3. To equip students with the knowledge of the care and maintenance of textiles.

Unit	Course Content	Lectures
I	<p><b>Fibers:</b></p> <p>a. Introduction to textile fibers</p> <p>b. Introduction to polymerization and molecular arrangement of fibers</p> <p>c. Classification of fibers</p> <p>d. Brief study of the cultivation/manufacturing processes, properties and uses of the following major fibers: Cotton, Jute, Linen, Wool, Silk Viscose Rayon Nylon, Polyester, Acrylic</p> <p>e. Study of blends – blending and its advantages, common blends and end uses</p> <p>f. Brief study of minor fibers: source, properties and end uses Natural (cellulosic): Hemp, Pina, Kapok, Banana Natural (proteinic): Mohair Synthetic: Elastomeric, Metallic, Glass, Carbon</p> <p>g. Recent Developments</p> <p>h. Sourcing of different fabrics</p> <p>i. Companies/centres/clusters, for fibre manufacture/cultivation</p> <p>j. Recent Trends and Future Trend Forecast of Fibres in the Textile &amp; Fashion Industry</p>	15
II	<p><b>Yarns:</b></p> <p>a. Introduction to yarns</p> <p>b. Yarn formation: Brief history of spinning (hand and mechanical spinning)</p> <p>c. Spinning:</p> <ol style="list-style-type: none"> <li>i. Yarn twist: Definition, Directions and Types of twist</li> <li>ii. Spun yarn: Ring spinning and Open-end spinning</li> <li>iii. Filament yarn: Monofilament, Smooth filament, Tape and network yarns, Bulk continuous filament yarn</li> </ol> <p>d. Classification of yarns: single, complex, composite</p> <p>e. Recent Developments</p> <p>f. Sourcing for Yarns</p> <p>g. Companies/centres/clusters, for yarns</p> <p>h. Recent Trends and Future Trend Forecast of Yarns in the Textile &amp; Fashion Industry</p>	15
III	<p><b>Fabrics:</b></p> <p>Woven: Yarn preparatory stages, parts of the loom, steps in weaving and basic weaves (plain, satin, sateen and twill)</p> <p>Knitted: Introduction to knitting, Weft knitting (flat and circular) Warp (tricot and raschel), properties and uses</p>	15



	Non-woven: Definition, manufacture, properties and uses d. Care labels e. Recent Developments f. Sourcing for Fabrics g. Companies/centres/clusters, for Fabrics h. Recent Trends and Future Trend Forecast of Fabrics in the Textile & Fashion Industry	
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**References:**

- Ajgaonkar, D. B. (1998). *Knitting Technology*. Mumbai: Universal Pub. Corporation
- Brannon, Evelyn L. (2010) *Fashion Forecasting*. 3d ed. New York: Fairchild.
- Corbman, B. P. (1985). *Textiles: Fibre to Fabric*. (6<sup>th</sup> Ed.).New York: Gregg Division/McGraw Hill
- Collier, B. J. and Phyllis, G. T. (2001). *Understanding Textiles*. New Jersey: Prentice Hall.
- Cook, J.G (2001) *Handbook of Textile fibers- Vol I* Woodhead Publishing Ltd.Cambridge
- D'Souza, N. (1998). *Fabric Care*. India: New Age International.
- Gohl, L.P.G And Velinsky L.D(2005) *Textile Science* (2<sup>nd</sup> Ed.) CBS Publishers and Distributors, New Delhi
- Gokerneshan, N (2004), *Fabric Structure and Analysis*, New age International Publishers, New Delhi
- Gong, R. H. and Wright, R. M, (2002) *Fancy Yarns: Their manufacture and application*, Woodhead Publishing Ltd, Cambridge
- Hollen, N., Saddler, J., Langford, A.L. & Kadolf, S.J. (1988).*Textiles*.(6<sup>th</sup> Ed). New York: Macmillan.
- Joseph, M. L. (1972).*Introductory Textile Science*.(2<sup>nd</sup> Ed.). New York: Holt, Rinehart and Winston.
- Joseph, M..L. (1975).Essentials of Textiles. New York: Holt, Rinehart and Winston.
- Kerr, Hillary. (2009) *Who What Wear: Celebrity and Runway Style for Real Life*. New York: Abrams.
- Kim, Eundeok. (2011) *Fashion Trends: Analysis and Forecasting*. Oxford; New York: Berg.
- Martin, Raymond. (2010) *The Trend Forecaster's Handbook*. London: Laurence King, 2010.
- McKelvey, Kathryn. (2008) *Fashion Forecasting*. Chichester, U.K.; Ames, IA: Wiley-Blackwell.
- Mishra, S.P. (2000) A Text Book of Fibre Science and Technology, New age International Publishers, New Delhi
- Needles, H. L (2011),*Textile Fibers, Dyes, Finishes and Processes, A Concise Guide*, Noyes Publications, New Jersey
- Rousso, Chelsea. (2012) *Fashion Forward: a Guide to Fashion Forecasting*. New York: Fairchild.
- Sekhri, S. (2011). *Fabric Science*, PHI Learning Private Ltd. New Delhi
- Shenai, V. A. (1991). *Technology of Textile Processing*. Vol. 1.(3rd Ed.). India: Sevak.
- Sinclair, R. (2015), *Textiles and Fashion Materials, Design and Technology*, Woodhead Publishing Cambridge
- Tortora, P.G. (1978). *Understanding Textiles*. New York: Macmillan.
- Wynne, A. (1997). *Textiles – The Motivate Series*. London: Macmillan Education.
- Udale Jenny (2008), *Textile and Fashion*, AVA publishing, Switzerland\
- Vidyasagar, P.V ((1998), *Handbook of Textiles*, Mittal Publications, New Delhi



Course Code	Title of the Course	Lectures / week	Marks allotted	Credits for the Course
USHS104	Aesthetics in Interiors	3	100	3

**Objectives:**

1. To help students understand the basic terminology of art and design.
2. To develop skills, abilities, knowledge and attitudes that will enable artistic production and creative problem solving.
3. To enable students to apply concepts of art and design to create aesthetically pleasing interiors.
4. To impart knowledge and skills for aesthetic appreciation and evaluation.

Unit	Course Content	Lectures
I	<p><b>Basics of Design Composition</b></p> <p>a) Objectives of Design</p> <p>b) Types of Design : Structural and Decorative</p> <p>c) Elements of Design : Line, Form, Colour, Texture, Space ,Light and Pattern</p> <p>d) Design Principles: Balance, Rhythm, Emphasis, Proportion, Harmony.</p> <p>e) Applications in Interior Design</p>	15
II	<p>Interior Space Planning</p> <p>a) Factors to be considered while designing of a house: Orientation, Circulation, Privacy, Grouping of rooms, Economy</p> <p>b) Ventilation</p> <p>c) Lighting</p> <p>d) Services</p> <p>e) Colour planning</p> <p>f) Introduction of concepts of Plan and Elevation.</p>	15
III	<p><b>Interior Furnishing</b></p> <p>a) Furniture</p> <p>b) Wall and Wall Finishes</p> <p>c) Doors and Door Types</p> <p>d) Window and Window Treatments</p> <p>e) Accessories for Home Decor</p> <p>f) Floor and Floor Finishes</p> <p>g) Man as a consumer of design, qualities and role of a good Interior Designer, Designing VS Decoration, Interior design as a career option</p> <p>h) Ethics for Professional Practice</p>	15

**References:**

Allen. P. S. (1985). Beginnings of Interior Environment (5th Ed), Macmillan Publishing Co. London.



- Bhatt. P. & Goenka S. (2001); Foundation of Art & Design (2nd Ed). Lakhani Book Depot. Mumbai
- Cliffon C., Mogg & Paine. M. (1988). The Curtain Book. Reed International Books. New York.
- Craig. H. T. (1987). Homes with Character. Glencoe Publishing Co. Inc. U.S.A.
- Gilliat M. (1986). The Decorating Book. Library of Congress Cataloguing Publications, Great Britain.
- Lewis E. L. (1980). Housing Decisions, The Good Heart, Willcox Co. Inc. Great Britain.
- Seetharaman. P. & Pannu. P. (2005). Interior Design & Decoration. First Edition, CBS Publishers & Distributors. New Delhi.



Course Code	Title of the Course	Lectures / week	Marks allotted	Credits for the Course
USHS105	Contemporary Social Issues	3	100	2

### Objectives

1. To develop a basic understanding about issues related to diversity and disparity.
2. To gain an overview of the Indian Constitution and the political process.
3. To develop a basic understanding about issues related to human rights and sustainable development
4. To gain an insight into the process of stress management and conflict resolution
5. To understand the growing social problems in India and the methods to combat it.

Unit	Topic	No of periods
I	<p><b>Concept of diversity and disparity</b></p> <ul style="list-style-type: none"> <li>• Concept of Diversity in India—cultural, population ,linguistic, regional and communal</li> <li>• Disparity –causes and consequences <ul style="list-style-type: none"> <li>❖ Gender</li> <li>❖ People with disabilities</li> <li>❖ Caste system.</li> </ul> </li> <li>• Intergroup conflicts due to caste, communal, regionalism and linguistic differences.(causes and effects)</li> </ul>	15
II	<p><b>A. The Indian Constitution and Political Process.</b></p> <ul style="list-style-type: none"> <li>• Basic features</li> <li>• Fundamental duties of the Indian citizen as crucial values in strengthening the social fabric of Indian Society(tolerance, peace and communal harmony)</li> <li>• The party system in Indian Politics</li> <li>• Local self government in urban and rural areas</li> <li>• Role of youth and women in politics</li> </ul> <p><b>B. Human Rights and sustainable development</b></p> <ul style="list-style-type: none"> <li>• Concept of Human Rights ,origin and evolution of the concept</li> <li>• The Universal Declaration of Human Rights</li> <li>• Fundamental human rights in the Indian constitution</li> </ul>	15
III	<p><b>Contemporary Social Concerns</b></p> <ul style="list-style-type: none"> <li>• Substance abuse</li> <li>• HIV/AIDS</li> <li>• Problems of elderly</li> <li>• Issues of Child Labour and child abuse</li> <li>• Corruption</li> <li>• Stress its causes and conflicts in society: stereotyping, prejudice, aggression and violence</li> <li>• Conflict resolution and efforts towards building peace and harmony in society</li> </ul>	15

	<i>Any other current social issue/problem as need arises.</i>	
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### **Suggested Readings**

[Note: This is not an exhaustive or prescriptive list; it is merely suggested reading]

#### **Unit 1 (Human Rights, Consumer Rights, Public Interest)**

- Shivananda, J. Human Rights. Alfa Publications, New Delhi,, 2006  
 Rajawat, M. Human Rights and Dalits. Anmol Publications, New Delhi, 2005  
 Kaushal, R. Women & Human Rights in India; Kaveri Books, New Delhi, 2000  
 Bajpai, A. Child Rights in India; Oxford University Press; New Delhi; 2003  
 Biju, M.R. Human Rights in a Developing Society; Mittal Publications, New Delhi, 2005  
 Prakash Kumar & Rai, K. B. Right to Know; Vikas Publishing House, NOIDA, 2008  
 Naib, Sudhir The Right to Information Act, 2005: A Handbook; OUP, New Delhi; 2011  
 Sathe, S. P. Judicial Activism in India; OUP; New Delhi, 2002

#### **Unit 2 (Ecology, Health, Education, Urban-Rural Issues)**

- Satpathy, N. Sustainable Development (An Alternative Paradigm); Karnavati Publications, Ahmedabad, Pachauri R.K & 1998  
 Srivastava L. (eds.) Global Partners for Sustainable Development; Tata Energy Research Institute, New Delhi; 1994  
 Shiva, Vandana Ecology and the Politics of Survival: Conflict over Natural Resources in India; Sage Publications, California, 1991  
 Pereira, W Inhuman Rights: The Western System and Global Human Rights Abuse; Apex Press; 1997 Pereira, W & Asking the Earth: Farms, Forestry and Survival in India; Earthscan Seabrook J Publications; 1991  
 Goel, S.L. Encyclopedia of Disaster Management, Vol. I, II & III; Deep and Deep Publications Pvt. Ltd., New Delhi; 2006  
 Parasuraman S. & Unnikrishnan P.V: India Disasters Report; Oxford University Press, New Delhi, 2000  
 Azim Premji The Social Context of Education in India; 2004. Foundation [www.azimpremjifoundation.org/](http://www.azimpremjifoundation.org/); Higher Education in India; UGC Report; 2003  
 Chaterjee, C Health and Human Rights; Vulnerable Groups in India, CEHAT, Mumbai & Sheoran, Gunjan May 2007  
 Datta, Prabhat The Great Indian Divide; Frontline; Volume 21 - Issue 14, Jul. 03 - 16, 2004  
 Kundu, Amitabh Rural Urban Economic Disparities in India: Database and Trends; December 2010; <http://www.indiapolicyforum.org/node/21>

#### **Unit 3 (Effective Communications Skills)**

- Covey, Stephen 7 Habits of Highly Effective People; Free Press, 2004  
 Iyer, Prakash The Habit of Winning; Penguin, India; 2011  
 Goldratt, Eliyahu The Goal; The Northriver Press; 3rd Edition; 2004  
 Goldratt, Eliyahu It's Not Luck; The Northriver Press; 1994



Course Code	Title of the Course	Periods / week	Marks allotted	Credits for the Course
USHSP101	Food Science	3	50	2

**Objectives:**

To familiarize the students with:

1. Common ingredients, devices and equipments and their functionality available for food preparation.
2. Different cooking methods and techniques used while food preparation.
3. Principles involved in the preparation of different foods and their application
4. Concept of food quality.

Unit	Course Content	Periods
I	<p><b>Experimental Cookery</b></p> <ul style="list-style-type: none"> <li>• Introduction to different terms, equipments and methods used in cookery</li> <li>• Sugar cookery <ul style="list-style-type: none"> <li>Stages of sugar cookery</li> <li>Crystalline and Non-crystalline sugar candies</li> </ul> </li> </ul> <p><b>Role of fats in cookery</b></p> <ul style="list-style-type: none"> <li>• Factors affecting fat absorption</li> </ul>	15
II	<p><b>Starch Cookery</b></p> <ul style="list-style-type: none"> <li>• Gluten formation</li> <li>• Effect of moist heat</li> </ul>	15
III	<p><b>Pectin Gel formation</b></p> <ul style="list-style-type: none"> <li>• Jams, Jellies, Marmalades</li> </ul> <p><b>Cooking of Protein Foods</b></p> <ul style="list-style-type: none"> <li>• Protein gelation, denaturation and coagulation</li> <li>• Effect of heat, acid and enzymes on protein</li> <li>• Role of egg in cookery</li> </ul>	15

**References:**

- Jamesen, K. (1998). Food Science laboratory manual New Jersey. Prentice Hall. Inc.
- Mcwilliams, M. (1984). Experimental foods laboratory manual. New Delhi: Surjeet Publication.
- Mcwilliams, M. (1997). Foods experimental perspective. (3rd Ed.) New Jersey. Merill/Prentice Hall.
- Sethi, M and Rao, S.E. (2001). Food science experiments and applications. New Delhi. CBS Publishers and Distributors





Course Code	Title of the Course	Periods / week	Marks allotted	Credits for the Course
USHSP102	Pattern Making and Styling for Kidswear	3	50	2

**Objectives:**

1. To introduce basic styling and pattern drafting.
2. To create interest in the subject by application of fundamentals of clothing.
3. To introduce the basic techniques of clothing construction.

Unit	Course Content	Periods
I	<p><b>Introduction:</b></p> <ul style="list-style-type: none"> <li>• Pattern cutting tools</li> <li>• Sewing equipment: its use and care</li> </ul> <p><b>Fundamentals:</b></p> <ul style="list-style-type: none"> <li>• Preparing woven fabrics for cutting: straightening and blocking of fabrics</li> <li>• Hand sewing techniques (Bastings/Slip stitch and Hemming)</li> <li>• Seams (Plain, Run and fell, French, Lapped, Double sewn, Pinked)</li> <li>• Fasteners (Press button, Button and buttonhole, Pant hook and bar, Velcro, Hook and eye)</li> <li>• Piping, Bias Facing and Fitted Facing (Concave/Convex/Inner corner/Outer corner)</li> <li>• Edge finishing (Groove and Edge, Edging with laces)</li> </ul> <p><b>Basic Blocks and Sleeve based on Armstrong method</b></p>	15
II	<p><b>Surface embellishment</b></p> <ul style="list-style-type: none"> <li>• Embroidery</li> <li>• Fabric painting</li> <li>• Stencil printing</li> </ul> <p><b>Making of embellished accessory for example bag/pouch</b></p> <p><b>Wardrobe Styling</b> Exploring types of garments in kids' wardrobe learning to coordinate mix-n-match and style attire to create different looks by accessorizing with suitable footwear/head-gears/scarves/ties/belts/bows/sashes/hair-dos/jewelry, etc.</p> <p><b>Dressing up for specific occasion for example sports/picnics/casual/playwear as per kids body types and lifestyles</b></p>	15
III	<p><b>Basic Clothing Concepts</b></p> <ul style="list-style-type: none"> <li>• Introducing body measurements</li> <li>• Reading design drawings and patterns with various yokes/pleats/gathers/necklines/sleeves/garment openings.</li> <li>• Basic drawing and planning garment details</li> <li>• Understanding and selecting fabrics</li> </ul> <p><b>Adaptation of basic blocks to draft patterns for kidswear namely Shirt, Shorts, Frock and Knickers</b></p>	15

**The course includes:**

- Planning and styling of garments with different garment details and adorning with different embellishing techniques (after having browsed through pattern books and Internet).
- Basic sketching for comprehending garment patterns.
- Flat pattern down-scaled for the journal sheets.
- Pattern constructions full scale.
- Journal as a compilation of drawings, patterns and swatches with colorful photographic presentations.
- Basic concepts of clothing to be incorporated in the garments or may be taught in the form of samples.
- Some instructional classes may be used as make-up periods and for conducting examinations as per predetermined schedules.

**References:**

- Cunningham G. (1969). *Singers Sewing Book*, New York: Singer Co. Ltd.
- Gardiner, W. (2003). *Encyclopedia of Sewing Techniques*, Kent: Search Presshold.
- Jewel, R. (2000). *Encyclopedia of Dress Making*. (1<sup>st</sup> Ed.) New Delhi: A.P.H. Publishing Corporation.
- McCall's. (1964). *Sewing in Colour*. London: The Hamlyn Publishing Group Ltd.
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- Zarapkar, T. (1981). *Zarapkar System of Cutting*, Mumbai: Zarapkar Tailoring College.
- Buckley, C. and McAssey J., (2011). *Basic Fashion Design 08 styling*, Bloomsbury: London.
- Marian L Davis, (1996). *Visual Design and Dress*, Third Edition, Prentice Hall: New Jersey.
- Suzanne G Marshall, Hazel O Jackson (2000). *Individuality in Clothing and Personal Appearance*, Prentice Hall, New Jersey.
- Caroline Tatham and Julian Seaman, (2003). *Fashion Designing and Drawing Course*, London: Thames and Hudson Publishers.
- Harold Carr, (1992). *Fashion Design and Product Development*, John Wiley and Son Inc.: New York.



Course Code	Title of the Course	Periods / week	Marks allotted	Credits for the Course
USHSP103	Aesthetics in Interiors	2	50	2

**Objectives :**

1. To help learn the relationships that characterizes art and design practice.
2. To enable students to explore theories and apply principles of aesthetics and art criticism to theorize your own artwork.
3. To encourage experimentation with traditional and contemporary materials, technical processes and methods.
4. To impart knowledge and skills for aesthetic appreciation and evaluation.

Unit	Course Content	Periods
I	<p><b>Concept of Colour:</b></p> <ol style="list-style-type: none"> <li>a. Dimensions of colours</li> <li>b. Colour systems :Prang and Itten's Star</li> <li>c. Planning Colour Harmonies : Related and Complimentary</li> <li>d. Application of Colour Harmonies in Interior and Exterior design</li> </ol>	10
II	<p><b>Presentation techniques</b></p> <ol style="list-style-type: none"> <li>a. Material, Media &amp; tools: Water Colours, Pen, Ink, Charcoal, Pencil, Brushes.</li> <li>b. Effect of lines to represent textures.</li> <li>c. Rendering with Pen &amp; Ink.</li> <li>d. Rendering of various materials: signs and symbols</li> </ol>	10
III	<p><b>Drafting and Presentation of Drawings</b></p> <ol style="list-style-type: none"> <li>a. Drafting tools &amp; medium</li> <li>b. Lines</li> <li>c. Lettering</li> <li>d. Dimensions</li> <li>e. Drafting a single room - Plan and Elevation</li> <li>f. Understanding Architectural Drawings</li> </ol>	10

**References:**

- Craig. H. T. (1987). Homes with Character. Glencoe Publishing Co. Inc. U.S.A.
- Damhorst. M. L., Miller. K. A. & Michelman. S. O. (2001). The meaning of Dress. Fairchild Publishing . New York.
- Diane. T. & Cassidy T. (2005). Colour Forecasting. Blackwell Publishing Co. Great Britain.
- Gill. R. W. (1994). Rendering with Pen & Ink. Thames & Hudson Ltd. London.
- Hauser. P. W. (1994). Greeting Card & Gift Wrap. North Light Books, Ohio.
- Hendy J. (1997). Balconies & Roof Gardens. New Holland Publishers (UK) Ltd. U.K.
- Hiney. I. M. (1998). Fabric Covered Boxes. Sterling Publishing Co. Inc. New York.
- Lehri. R. M. (1999) Folk Designs & Motifs from India. Dover Publications Inc. New York.
- Sheen. J. (1992). Flower Crafts. Salamander Books Ltd. New York.
- Wilson. J. (2005). Handbook of Textile Design – Principles, Processes & Practice. Woodhead Publishing Ltd. England.

## SEMESTER II

COURSE CODE	COURSE TYPE	TITLE OF THE COURSE	WORKLOAD		NO. OF CREDITS	
			L	P	T	P
USHS201	Core Course	Basic Nutrition	3	-	3	-
USHS202	Core Course	Adolescent Development	3	-	3	-
USHS203	Core Course	Psychology of Clothing	3	-	3	-
USHS204	Core Course	Introduction to Tourism and Hospitality Industry	3	-	3	-
USHS205	Foundation Course - Ability Enhancement Course 2	Environment & Sustainable Development	3	-	2	-
USHSP201	Core Course Practical	Introductory Food Analysis and Biochemistry	-	3	-	2
USHSP202	Core Course Practical	Pattern Making, Garment Construction and Styling for Kidswear	-	3	-	2
USHSP203	Core Course Practical	Skills for the Hospitality Industry	-	2	-	2
					<b>14</b>	<b>6</b>



Course Code	Title of the Course	Lectures / week	Marks allotted	Credits for the Course
USHS201	Basic Nutrition	3	100	3

**Objectives:-**

1. To enable students to understand the relation of nutrition to health.
2. To enable students to understand functions, sources, requirements and effects of deficiency of macronutrients.
3. To enable students to understand digestion, absorption and metabolism of Macronutrients.

Unit	Course Content	Lectures
I	<p><b>Introductory Nutrition:</b> Important terminologies and concepts in Nutrition such as:</p> <ul style="list-style-type: none"> <li>• Balanced diet,</li> <li>• Food guide pyramids,</li> <li>• Food plate concept,</li> <li>• Macro &amp; micro nutrients,</li> <li>• Malnutrition</li> </ul> <p><b>Energy:</b></p> <ul style="list-style-type: none"> <li>• Forms of Energy</li> <li>• Energy expenditure</li> <li>• Components of energy expenditure – BMR, TEF and Physical activity</li> <li>• Factors influencing &amp; Requirements of energy expenditure</li> <li>• Requirements of energy</li> </ul>	15
II	<p><b>Functions, classification, sources, basic structures, tests for identification, metabolism and RDA</b></p> <p><b>Macronutrients:</b></p> <ul style="list-style-type: none"> <li>• Carbohydrates</li> <li>• Lipids</li> <li>• Proteins</li> </ul>	15
III	<p><b>Functions, classification, sources, basic structures, tests for identification, metabolism and RDA</b></p> <p><b>Micronutrients:</b></p> <ul style="list-style-type: none"> <li>• Vitamins –Fat soluble and water soluble vitamins</li> <li>• Minerals – Macro, Micro &amp; Trace Minerals</li> </ul> <p><b>Water</b></p> <ul style="list-style-type: none"> <li>• Functions &amp; Imbalances</li> </ul>	15

**References:**

- Srilakshmi,B., (2003), Nutrition Science, New Age International Ltd.
- Gopalan, C et al (2004), Nutritive value of Indian Foods, NIN, ICMR, Hyderabad
- ICMR(2010)Nutrient requirements and Recommended Dietary Allowances for Indians-A report of the expert group of the ICMR, NIN, Hyderabad.
- Swaminathan,M., (1998), Essentials of Food and Nutrition.2nd edition, volume I&II, Printing & Publishing,Banglore
- Ramarao A.V.S.S., (1998), A textbook of Medical Biochemistry, New Delhi:UBS Publications
- Guthrie,H., (1986), Introductory Nutrition,6th edition Times Mirror/Mosby college Publication.
- Bamji,M., Praihad Rao,N., and Reddy,V., (1996), Textbook of Human Nutrition. Oxford and TBH Publishing Co, Pvt, Ltd.



Course Code	Title of the Course	Lectures / week	Marks allotted	Credits for the Course
USHS202	Adolescent Development	3	100	3

**Objectives:**

1. To introduce students to the scientific study of adolescence.
2. To help students learn about key areas of adolescent development: puberty, health, cognitive and moral development, self, identity, emotions, gender, personality, and sexuality.
3. To have students understand the contexts which influence adolescent development: family/parents/siblings, peers/friends, school, and culture.
4. To sensitize students to the common challenges during adolescence.
5. To acquaint students with the various ways in which one can create well-being in adolescence.

Unit	Course Content	Lectures
I	<p><b>Introduction, History, and Biological Development</b></p> <p>(a) Historical perspective of the study of adolescence: adolescence as a new stage in human development, stereotyping of adolescents, positive youth development theory</p> <p>(b) Importance of studying adolescents; status of adolescents in the world and in India</p> <p>(c) Puberty: determinants, growth spurt, sexual maturation, secular trends in puberty, pubertal timings and health care, psychological dimensions</p> <p>(d) Adolescent health as a critical juncture: nutrition, exercise and sports, sleep, leading causes of death</p> <p><b>Cognitive and Moral Development</b></p> <p>(a) Experience-dependent plasticity of the brain in adolescence.</p> <p>(b) The cognitive development view: Piaget's and Vygotsky's theories and extensions</p> <p>(c) The information processing view: characteristics of the information-processing view, attention, memory, executive functioning (decision-making, reasoning, critical thinking, creative thinking)</p> <p>(d) Moral development: Piaget, Kohlberg, Gilligan and extensions</p> <p>Religion and spirituality</p>	15
II	<p><b>Self, Identity, and Emotions</b></p> <p>(a) Self: what is the self, multidimensionality, self-concept vs. self-esteem, theories (James, Cooley, Harter), characteristics of an adolescent's self</p> <p>(b) Identity: Erikson's identity vs. role diffusion, psychosocial moratorium, identity crisis, Marcia's four statuses of identity, current perspective on identity development</p> <p>(c) Emotions: definition, relationship with self-esteem, adolescence as a period of storm and stress, hormones and emotions, social aspects and emotions, emotional competence</p> <p><b>Personality, Gender, and Sexuality</b></p> <p>(a) Personality: different conceptions of personality, the Big Five</p>	15

	<p>model of personality, person vs. situation as determinants of behavior</p> <p>(b) Gender : femininity, masculinity, gender classifications, androgyny as a healthy option, role of culture in gender development, sex vs. gender, gender differences (activities and interests, personal-social attributes, social relationships, styles and symbols)</p> <p>(c) Sexuality: sex vs. sexuality, importance of sexuality in adolescence, challenges related to sexuality</p>	
III	<p><b>Contexts of Adolescent Development</b></p> <p>(a) Reciprocal socialization and the family as a system.</p> <p>(b) Parents: developmental changes in parents and adolescents, changing parent-adolescent relationships, parents as managers, parenting styles, parent-adolescent conflict, autonomy and attachment</p> <p>(c) Siblings: sibling roles</p> <p>(d) Peer relations: peer group functions, family-peer linkages, peer conformity, peer statuses, friendship, dating and romantic relationships</p> <p>(e) Schools; adolescence as a critical juncture in achievement; technology</p> <p>(f) Role of culture; youth in poverty</p> <p><b>Challenges, Problems and Wellbeing in Adolescence</b></p> <p>(a) Teen suicide: statistics, common situations in which adolescents commit suicide, symptoms of depression, prevention and intervention</p> <p>(b) Academic stress: statistics/profile of adolescents in India related to academic stress, reasons, strategies for coping</p> <p>(c) Bullying, ragging, aggression/violence, and juvenile delinquency: statistics/profile of adolescents in India, prevention and intervention</p> <p>(d) Substance abuse: smoking, alcohol and drugs; influence of peers; prevention and intervention</p> <p>(e) Strategies for creating well-being in adolescence</p>	15

**References:**

- Dolgin, K. G. (2010). *The adolescent: Development, relationships, and culture* (13<sup>th</sup> ed.). NY: Pearson.
- Garrod, A., Smulyan, L., & Powers, S. I. (2011). *Adolescent portraits: Identity, relationships, and challenges* (7<sup>th</sup> ed.). NY: Pearson.
- Santrock, J. W. (2013). *Adolescence* (15<sup>th</sup> ed.). NY: McGraw-Hill.



Course Code	Title of the Course	Lectures / week	Marks allotted	Credits for the Course
USHS203	Psychology of Clothing	3	100	3

**Objectives:**

1. To understand the psychology of clothing.
2. To give an insight into the relationship between clothing, fashion and body types.
3. To understand the various factors affecting clothing behavior in relation to personality and roles.

Unit	Course Content	Lectures
I	<p><b>Origin and Theories of Dress and Adornment</b></p> <ul style="list-style-type: none"> <li>• Early Interest / Use</li> <li>• Purpose for Dress – Modesty, Adornment, Protection and Utility</li> </ul> <p><b>Clothing and Physical Self:</b></p> <ul style="list-style-type: none"> <li>• Body Image and Social Ideals</li> <li>• Bodily Traits and Social Influences</li> <li>• Physical Attractiveness</li> <li>• Physical Disabilities and Appropriate Clothing</li> <li>• Selection of fabrics for various age groups and end uses with self – help features</li> </ul>	15
II	<p><b>Clothing, Socialization and Concept of Self</b></p> <ul style="list-style-type: none"> <li>• Stages in Self-concept formation</li> <li>• Social feedback</li> <li>• Self-comparison / perception / esteem</li> <li>• Clothing in groups and organizations</li> <li>• Social constraints in clothing</li> <li>• Clothing society and self</li> <li>• Socio-cultural variations in clothing</li> <li>• Impact of mass media on clothing</li> </ul>	15
III	<p><b>Clothing, Fashion, Personality and Roles</b></p> <ul style="list-style-type: none"> <li>• Symbolic interactive theory</li> <li>• Role theory</li> <li>• Role acquisition / conflict / embracement</li> <li>• Dramaturgy</li> <li>• Clothing and personality</li> <li>• Fashion Theory Process</li> <li>• Recent developments</li> </ul>	15

**References:**

Kaiser S. B. (1985). *The Social Psychology of Clothing*. New York: MacMillan

Course Code	Title of the Course	Lectures / week	Marks allotted	Credits for the Course
USHS204	Introduction to Tourism and Hospitality Industry	3	100	3

**Objectives:**

1. To enable students to understand the meaning, concept, origin and development of the hospitality industry.
2. To provide technical, analytical and conceptual skills appropriate for the hospitality industry.
3. To develop young women into professional experts, to manage hospitality industry in general and hotels in particular.

Unit	Course Content	Lectures
I	<p><b>Overview of the Tourism and Hospitality Industry</b></p> <p><b>History:</b></p> <ol style="list-style-type: none"> <li>a. Travel :International / Domestic</li> <li>b. History of Hotels and Motels</li> <li>c. History of Travel Agency &amp; Tour Operations</li> <li>d. Origin of Food Service Industry</li> <li>e. Growth of Air Travel</li> </ol> <p><b>Careers in the Industry</b></p> <ol style="list-style-type: none"> <li>a. Career paths and career goals</li> <li>b. Professionalism and etiquette</li> <li>c. Social responsibility in the business</li> <li>d. Careers in Travel and Tourism; Managed services, Restaurants and Lodging, Club management, MICE, Recreation, Leisure, Amusement, Theme parks etc</li> </ol> <p><b>Customer Service</b></p> <ol style="list-style-type: none"> <li>a. Definition and Importance</li> <li>b. Types of customers: External and Internal</li> <li>c. Customer Relations Management</li> <li>d. Customer services : before, during and after sale</li> <li>e. Challenges encountered in providing service</li> <li>f. Customer Service and Technology</li> </ol>	15
II	<p><b>The Hotel Industry</b></p> <p><b>Introduction</b></p> <ol style="list-style-type: none"> <li>a. Definition</li> <li>b. Categorizations of Hotels</li> <li>c. Hotel brands in India</li> </ol> <p><b>Organization of the Hotel</b></p> <ol style="list-style-type: none"> <li>a. Organizational Structure of Hotel : Small and Large Hotel</li> <li>b. Departments /Divisions in Hotel <ol style="list-style-type: none"> <li>i. Revenue and Non - revenue departments</li> <li>ii. Front office and Back office departments</li> </ol> </li> </ol> <p><b>Hotel Guestrooms</b></p> <p><b>Types of guests:</b></p> <p><b>Types of Food service facilities: Commercial and Institutional food facilities</b></p>	15

	<b>Future trends in Hospitality</b>	
III	<b>The Tourism Industry</b> Introduction and Role of Tourism Factors Influencing growth of Tourism <ol style="list-style-type: none"> <li>a. Religion and Spirituality</li> <li>b. Leisure</li> <li>c. Sight seeing</li> <li>d. Culture</li> <li>e. Adventure</li> <li>f. Other Tourism Activities</li> </ol> <b>Tour Operators and Travel Agents</b> <ol style="list-style-type: none"> <li>a. Role of Travel Agent and Tour Operators</li> <li>b. E- Trade</li> <li>c. Web – Marketing</li> </ol> <b>Tourist Organizations: Indian and International organizations</b> <b>Future Tourism Trends</b>	15

**References:**

- Agarwal. A. and Agarwal. M. (2000). Careers in Hotel Management. Vision Books Pvt. Ltd, New Delhi.
- Alan. T. S. and Wortman. J. F. (2006). Hotel and Lodging Management – An Introduction. John Wiley and Sons. New Jersey.
- Andrews. S. (1982). Hotel Front Office – Training manual. Tata McGraw Hill Publishing Co. Ltd. New Delhi.
- Andrews. S. (2003). Hotel Housekeeping – Training manual. Tata McGraw Hill Publishing Co. Ltd. New Delhi.
- Branson J. and Lennox M. (1992). Hotel, Hostel and Hospital Housekeeping. Hodder and Stoughton Educational Press, Great Britain.
- Brown G. and Hepner. K. (1996). The Waiter’s Handbook. Hospitality Press Pty Ltd, Australia
- Casado. M. A. (2000). Housekeeping Management. John Wiley. New York.
- Ford. R. C. and Heaton. C. P. (2000). Managing the Guest Experience in Hospitality. Delmar Thomson Learning. New York.
- Hurst. R. (1983). Housekeeping Management for Hotels and Residential Establishments. Heinemann, London.
- O’ Shannessy. V and Haby. S. Richmond (2001). Accommodation Services. Prentice Hall, Australia
- Raghubalan. G. and Raghubalan. S. (2007). Hotel Housekeeping Operations and Management. Oxford University Press. New Delhi
- Walker. J. R. (2005). Introduction to Hospitality Management. Pearson Education Pvt. Ltd, Delhi.



Course Code	Title of the Course	Lectures / week	Marks allotted	Credits for the Course
USHS205	Environment and Sustainable Development	3	100	2

**Objectives:**

1. To provide an insight into recent ecological and environmental issues and concerns.
2. To create sensitivity and consideration towards ethics, conservation and sustainable development for environmental problems.
3. To give an exposure into legal aspects and environmental laws at the National and Global level.

Unit	Course Content	Lectures
I	<p><b>ECOSYSTEMS, BIODIVERSITY , RESOURCES AND ETHICS.</b></p> <ul style="list-style-type: none"> <li>• Definition and scope of Environmental Science.</li> <li>• Natural Ecosystems : Global, national and local issues</li> <li>• Biodiversity :Concepts and global, national and local concerns</li> <li>• Resources-Natural and Manmade</li> <li>• Energy-renewable and non-renewable</li> <li>• Land- Food production ,weather and climate, Soil erosion and desertification, Agricultural practices and its effects on land</li> <li>• Sustainable methods for resource conservation</li> <li>• Environmental ethics-Concept of intrinsic and extrinsic value of human and non human life</li> <li>• Ecospirituality.</li> </ul>	15
II	<p><b>POLLUTION AND ITS IMPACT ON THE ENVIRONMENT</b></p> <p>Each subtopic will be discussed with regards the following: Sources of pollution, Effects on environment and human health, methods of eliminating effects of pollution ,controlling and preventing pollution</p> <ul style="list-style-type: none"> <li>• Air Pollution</li> <li>• Water Pollution</li> <li>• Thermal and Radiation Pollution</li> <li>• Noise Pollution</li> <li>• E-waste</li> </ul>	15
III	<p><b>NATURAL RESOURCES, CONSERVATION AND SUSTAINABLE DEVELOPMENT</b></p> <ul style="list-style-type: none"> <li>• Natural disasters due to ecological damage and environmental degradation.(2 recent case studies can be discussed)</li> <li>• Legal provisions and laws empowering sustainable development.(National and Global)</li> <li>• Sustainable methods of waste management</li> <li>• Sustainable methods for resource conservation</li> <li>• Solid waste management</li> <li>• Effluent treatment</li> <li>• E waste management</li> <li>• Principles of conservation : Reduce, Reuse and Recycle</li> </ul>	15

- |  |  |  |
|--|--|--|
|  | <ul style="list-style-type: none"><li>• Recent trends, initiatives and outcomes in recycling and conservation of biodiversity and resources(Global and National)</li></ul> |  |
|--|--|--|

**References:**

- Bharucha E. Textbook of Environmental Studies for Undergraduate Courses. Naabhi Publications, 2013.
- Bellamy j., Clark B. AND York R. The Ecological Rift. Monthly Review Press ,2011.
- Boubel R., Fox D. Fundamentals of Air Pollution .Naabhi Publications,2005.
- Dixit N. Water Use and Waste Water Management. Naabhi Publications, 2006
- Ernst F. Schumacher E. Small Is Beautiful: Economics as if People Mattered. Harper Perennial,1989
- MacKay D. Sustainable Energy - Without the Hot Air. W. W. Norton & Company ,1999.
- McDonough W. Braungart. Cradle to Cradle: Remaking the Way We Make Things. North Point Press,2002
- P.Panday, Bhola Mahato, R.K. Singh, L.B. Singh and B.N. Pandey, A Text Book of Environmental Pollution. Narendra Pub, 2010

Course Code	Title of the Course	Periods / week	Marks allotted	Credits for the Course
USHSP201	Introductory Food Analysis & Biochemistry	3	50	2

**Objectives:**

To familiarize the students with

1. Basic techniques of food analysis.
2. Techniques of identifying food adulteration.
3. Concept of food quality.

Unit	Course Content	Periods
I	<p><b>Introductory Food Analysis</b></p> <ul style="list-style-type: none"> <li>• Standardization of acids and alkalies</li> </ul> <p><b>Proteins:</b></p> <ul style="list-style-type: none"> <li>• Colour reactions of Amino acids-Biuret Method, Ninhydrin test, Xanthoproteic test, etc.</li> <li>• Precipitatory reactions of proteins</li> </ul>	15
II	<p><b>Carbohydrates:</b></p> <p>Qualitative analysis</p> <ul style="list-style-type: none"> <li>• Benedicts's test, Molisch test, Iodine test, etc.</li> <li>• Quantitative analysis - Cole's Method, Benedicts quantitative test.</li> <li>• Analysis of dietary fibre</li> </ul>	15
III	<p><b>Lipids</b></p> <ul style="list-style-type: none"> <li>• Qualitative tests for lipids</li> <li>• Determination of Acid value</li> </ul> <p><b>Vitamins</b></p> <ul style="list-style-type: none"> <li>• Estimation of Vitamin C- DCIP method</li> </ul> <p><b>Pigments</b></p> <ul style="list-style-type: none"> <li>• Effect of heat, acid &amp; alkali on vegetable &amp; fruit pigments (Chlorophyll, carotenoids &amp; anthocyanins)</li> </ul>	15

**References:**

- Jamesen, K. (1998). Food science laboratory manual New Jersey. Prentice Hall.
- Mcwilliams, M. (1984). Experimental foods laboratory manual. New Delhi: Surjeet Publication.



Course Code	Title of the Course	Periods / week	Marks allotted	Credits for the Course
USHSP202	Pattern Making, Garment Construction and Styling for Kidswear	3	50	2

**Objectives:**

1. To apply the basics of styling and garment construction techniques.
2. To plan and stitch garments that are aesthetically and functionally designed for kids.
3. To apply the basic techniques of clothing construction in garment making.

Unit	Course Content	Periods
I	<b>Apron</b> <b>Wardrobe Styling</b> Exploring types of garments in kids' wardrobe learning to coordinate mix-n-match and style attire to create different looks by accessorizing with suitable footwear/head-gears/scarves/ties/belts/bows/sashes/hair-dos/jewelry, etc. <b>Dressing up for specific occasion for example formal/birthday party/traditional occasions as per kids body types and lifestyles</b>	15
II	<b>Girls:</b> <b>A-line Frock</b> <b>Knickers</b>	15
III	<b>Boys:</b> <b>Shirt</b> <b>Shorts</b>	15

The course includes:

- Planning and styling of garments with different garment details and adorning with different embellishing techniques (after having browsed through pattern books and Internet).
- Sourcing and selecting suitable fabrics (preferably cotton) and other trimmings and findings.
- Folding of fabrics, placement of drafts considering fabric consumption and minimum wastage, pinning, cutting and marking methods
- Stitching of the planned garments using suitable seams, neckline, armhole and edge finishes.
- Journal as a compilation of drawings, patterns and swatches with colorful photographic presentations.
- Some instructional classes may be used as make-up periods and for conducting examinations as per predetermined schedules.

**References:**

- Cunningham G. (1969). *Singers Sewing Book*, New York: Singer Co. Ltd.  
 Gardiner, W. (2003). *Encyclopedia of Sewing Techniques*, Kent: Search Presshold.  
 Jewel, R. (2000). *Encyclopedia of Dress Making*. (1<sup>st</sup> Ed.) New Delhi: A.P.H. Publishing Corporation.

McCall`s. (1964). *Sewing in Colour*. London: The Hamlyn Publishing Group Ltd.

Reader`s Digest (1993). *Step by Step Guide: Sewing and Knitting*, Auckland: Reader`s Digest.

Zarapkar, T. (1981). *Zarapkar System of Cutting*, Mumbai: Zarapkar Tailoring College.

Buckley, C. and McAssey J., (2011). *Basic Fashion Design 08 styling*, Bloomsbury: London.

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Suzanne G Marshall, Hazel O Jackson (2000). *Individuality in Clothing and Personal Appearance*, Prentice Hall, New Jersey.

Caroline Tatham and Julian Seaman, (2003). *Fashion Designing and Drawing Course*, London: Thames and Hudson Publishers.

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Course Code	Title of the Course	Periods / week	Marks allotted	Credits for the Course
USHSP203	Skills for the Hospitality Industry	2	50	2

**Objectives:**

1. To inculcate professional competence and confidence among the students.
2. To provide students with basic technical and practical skills appropriate for the hospitality industry

Unit	Course Content	Periods
I	<p><b>Illustrating the Organizational structure of</b></p> <ol style="list-style-type: none"> <li>a. Large hotel</li> <li>b. Small hotel</li> </ol> <p><b>Categorization of hotels according to</b></p> <ol style="list-style-type: none"> <li>a. Size</li> <li>b. Star rating</li> <li>c. Location</li> <li>d. Clientele / Guests Ownership /Affiliation</li> </ol> <p><b>Hotel departments- classification and introduction to</b></p> <ol style="list-style-type: none"> <li>a. Front Office</li> <li>b. House keeping</li> <li>c. Food &amp; Beverages</li> <li>d. Food &amp; Beverage service equipment – Laying of a table, laying of a cover</li> </ol>	10
II	<p><b>Hotel Guest rooms</b></p> <ol style="list-style-type: none"> <li>a. Types</li> <li>b. Sample layouts</li> <li>c. Supplies and Amenities</li> </ol> <p><b>Hotel Brochures and pricing:</b></p> <ol style="list-style-type: none"> <li>a. Room rates</li> <li>b. Pricing</li> <li>c. Marketing through advertisements - Sales promotion materials for hospitality and tourism promotion</li> </ol>	10
III	<p><b>Tourism product of Maharashtra</b></p> <ol style="list-style-type: none"> <li>a. Cultural Heritage</li> <li>b. World Heritage monuments</li> <li>c. Adventure tourism</li> <li>d. Hill Resorts</li> <li>e. Beaches</li> <li>f. Tourism festivals</li> <li>g. Pilgrimage Centre's</li> <li>h. Arts and Crafts</li> <li>i. Performing Arts</li> </ol> <p><b>Tourist Transport – An Overview</b></p> <ol style="list-style-type: none"> <li>a. Air travel</li> </ol>	10



	<ul style="list-style-type: none"> <li>b. Surface transport</li> <li>c. Rail transport <ul style="list-style-type: none"> <li>i. Major railway of world - British railway, Euro rail, Japanese rail, Amtrak Onent Express, Tibetan Rail</li> <li>ii. Indian railways</li> </ul> </li> <li>d. Water transport <ul style="list-style-type: none"> <li>i. Cruise ship</li> <li>ii. Ferries</li> <li>iii. Hovercrafts &amp; Boats</li> </ul> </li> </ul>	
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**References:**

- Agarwal A. and Agarwal M, (2000). Careers in Hotel Management. Vision Books Pvt Ltd, New Delhi
- Andrews, S. (1982). Hotel Front Office – Training Manual. Tata McGraw Hill Publishing Co. Ltd., New Delhi.
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- Lockwood A. (1996). Quality Management in Hospitality: Best Practice in Action. Cassell Publishing House, London.
- O’ Shannessy, V., Haby, S. and Richmond, P. (2001). Accommodation Services. Prentice Hall, Australia
- Raghubalan G. and Raghubalan S. (2007). Hotel Housekeeping Operations and Management. Oxford University Press, New Delhi
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## **Scheme of Examination**

### **F.Y.B.Sc. (Home Science) 2016-17 onwards**

#### **Question Paper Pattern for Semester End Theory Examination of 100 marks for three unit course**

- 1) Duration – 3 hours for 100 marks paper
- 2) There shall be four questions
- 3) There will be one question on each unit and fourth question will be based on the entire syllabus.
- 4) All Questions will be of 25 marks each (40 marks with internal options)
- 5) All questions shall be compulsory with internal choice within the questions.
- 6) Questions may be sub divided into sub questions as a, b, c, d & e etc. and the allocation of marks depends on the weightage of the topic.
- 7) No sub question shall exceed 12½ marks.

All **Practical** courses out of 50 marks with no internal assessment for all levels of undergraduate courses.

The learners to pass a course shall have to obtain a minimum of 40% marks for each course.

**Note – It is noted that the same be implemented to Semester I and Semester II from the academic year 2016 – 2017.**

**Semester III to VI will follow the scheme of examination of 2015-16.**