

Based on Undergraduate Curriculum Framework 2022

दिल्ली विश्वविद्यालय
UNIVERSITY OF DELHI

Bachelor of Science in Home Science

or

**Bachelor of Science (Prog.) Home Science with Dissertation/
Academic Projects/ Entrepreneurship**

*Under UGCF-2022 based on NEP-2020
(Effective from Academic Year 2022-23)*



Syllabus as approved by Academic Council

Date:

No:

Executive Council

Date:

No:

Department of Home Science
Semester – IV

B.Sc. (Prog.) Home Science

| Paper No | Paper title | Credits | |
|------------|---|---------|-----------|
| | | Theory | Practical |
| DSC HP 410 | Lifespan Development II: Middle Childhood and Adolescence | 3 | 1 |
| DSC HP 411 | Lifespan Approach to Nutrition | 3 | 1 |
| DSC HP 412 | Communication Systems | 3 | 1 |
| DSE HP 4A1 | Adolescent Relationships and Wellbeing | 2 | 2 |
| DSE HP 4B1 | Physiology and Promotive Health | 2 | 2 |
| DSE HP 4C1 | NGO Management and Advocacy | 2 | 2 |
| DSE HP 4D1 | Fabric Construction | 2 | 2 |
| DSE HP 4E1 | Human Capital Management | 2 | 2 |

UG Programme for Bachelor in B.Sc. Home Science (Prog.) degree in three years

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

DISCIPLINE SPECIFIC CORE COURSE

DSC HP 410: Lifespan Development II: Middle Childhood and Adolescence

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course (if any) |
|---|---------|-----------------------------------|----------|---------------------|----------------------|--|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Lifespan Development II: Middle Childhood and Adolescence | 4 | 3 | 0 | 1 | XII Pass | Appeared in Lifespan Development I: Prenatal and Early Years |

Learning Objectives

- To acquire a detailed understanding of development in middle childhood and adolescence.
- To gain insights into context specific cultural practices of development in children and adolescents.
- To develop understanding of the various roles and relationships during middle childhood and adolescence.

Learning Outcomes

Students will be able to:

- To develop an understanding of developmental milestones and domains from middle childhood to adolescence.
- To gain insights into the cultural aspects of development.
- To understand how relationships evolve and are maintained during middle childhood and adolescence.

SYLLABUS OF DSC HP 410

THEORY
(Credits 3; Hours 45)

UNIT I: Introduction to Middle Childhood Years **11 Hours**

This unit will explain the stage of middle childhood and the various changes in physical-motor, cognitive and language domains.

- Physical-motor Development
- Cognitive Development
- Language Development

UNIT II: Development in Middle Childhood Years **11 Hours**

This unit will explain the stage of middle adulthood and focus on the social emotional changes specific to this stage.

- Social- Role of Peers, School and Family
- Emotional Development
- Moral Development

UNIT III: Introduction to Adolescence **11 Hours**

This unit will focus on adolescence in India and focus on selected domains of development.

- Adolescence in the cultural context
- Physical and physiological changes during adolescence
- Cognition and Language Development

UNIT IV: Development in Adolescence **12 Hours**

This unit will explain the stage of adolescence and focus on the socio-emotional changes specific to this stage.

- Formation of Identity during Adolescence
- Social and Emotional Development
- Moral Development

PRACTICAL
(Credit 1; Hours 30)

1. Methods of studying Children and Adolescents
 - Questionnaire
 - Sociometry
 - Case study
2. To write a narrative account on adolescent years to understand the development of self.
3. To develop activities to facilitate cognition and creativity in adolescents.
4. Use of secondary sources to understand the depiction of children and adolescents in media
5. Psychometric tests for children and adolescents.

Essential Readings:

- Berk, L. E. (2007). Development through the lifespan. Delhi: Pearson Education. McGraw-Hill.
- Papalia, D.E. and Martorell, G. (2015). Experience Human Development, McGraw-Hill Education.
- Rice, F. P. (1998). Human Development: A lifespan approach. New Jersey: Prentice Hall.
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata
- Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient Black Swan.
- Sharma, N. (1999). Understanding Adolescence. National Book Trust.
- Ranganathan, N. (Ed.). 2020. Understanding Childhood and Adolescence. New Delhi: Sage.

Suggested Readings

- Journal of Developmental Psychology
- Rutter, M. and Rutter, M. (1992). Developing Minds. Challenge and continuity across the lifespan. London: Penguin.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time

DISCIPLINE SPECIFIC CORE COURSE
DSC HP 411: Lifespan Approach to Nutrition

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility Criteria | Pre-requisite of the course (if any) |
|--------------------------------|---------|-----------------------------------|----------|---------------------|----------------------|--|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Lifespan Approach to Nutrition | 4 | 3 | 0 | 1 | XII Pass | Appeared in Foundation of Food Science and Nutrition |

Learning Objectives

- To acquire knowledge about the nutritional needs and concerns of an individual throughout the life cycle.
- To enable students in understanding the principles of planning nutritionally adequate diets.
- To make them exercise food choices consonant with good health based on sound knowledge of principles of nutrition.

Learning Outcomes

- Acquire knowledge about the nutritional needs and concerns of an individual throughout the life cycle.
- Comprehend the principles of planning nutritionally adequate diets.
- Exercise food choices consonant with good health based on sound knowledge of principles of nutrition.

SYLLABUS OF DSC HP 411

THEORY
(Credits 3; Hours 45)

UNIT I: Basics of Nutrient Requirements and Meal Planning

12 Hours

In this unit concepts of food groups and food exchange lists for meal planning, factors affecting meal planning will be dealt with. Students will also be introduced to dietary guidelines for Indians.

The concept of estimated average requirements, recommended allowances and methods of assessing nutrient requirements in general for Indians will be explained.

- Food groups
- Food exchange list
- Factors affecting meal planning and food related behaviour, diet diversity
- Dietary guidelines for Indians
- Concept of EAR, RDA and TUL
- Basic concepts of assessment of nutrient requirements

UNIT II: Nutrition during Adulthood and Old Age

12 Hours

Physiological influence on nutrient requirements during adulthood and old age (EAR/RDA), energy balance, nutritional concerns and changes in requirements during adulthood and old age, concept of healthy food choices, processed and ultra-processed food consumption and factors contributing to longevity will be dealt with.

- Adult men and women
- Elderly

UNIT III: Nutrition during Pregnancy and Lactation

9 Hours

Physiological changes in pregnancy and lactation, EAR/RDA during pregnancy and lactation, nutritional guidelines, effect of nutritional status on pregnancy outcome, optimal weight gain and its components during pregnancy, nutrition related problems in pregnancy, importance of nutrition for successful lactation will be dealt with.

- Pregnant women
- Lactating mothers

UNIT IV: Nutrition during Childhood

12Hours

Physiological changes during infancy, childhood and adolescence – growth and development; nutrient requirements (EAR/RDA) during these age groups, and nutrition concerns keeping in mind the changing food habits and importance of physical activity will be dealt with.

- Infant
- Preschool children
- Schoolage children
- Adolescents

PRACTICAL (Credits 1; Hours 30)

1. Introduction to meal planning:
 - Rich sources of nutrients
 - Use of food exchange lists
2. Planning nutritious diets for:
 - Adult (Male and Female)
 - Pregnant and Lactating woman
 - Pre-schooler
 - Adolescent girl

- Elderly
3. Planning and cooking of nutrient rich snacks/dishes for:
- Infants (Freshly prepared complementary foods)
 - Packed tiffin
 - Pregnancy/Lactation

Essential Readings:

- Chadha R and Mathur P eds. (2015). Nutrition: A Lifecycle Approach. Orient Blackswan, New Delhi
- ICMR-NIN Expert Group on Nutrient Requirements for Indians, Recommended Dietary Allowances (RDA) and Estimated Average Requirements (EAR)-2020 and subsequent revision
- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Delhi: Elite Publishing House Pvt. Ltd.
- NIN (2011). Dietary Guidelines for Indians-A manual. Second Edition. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad. and subsequent revision

Suggested Readings:

- Byrd-Bredbenner C, Moe G, Beshgetoor D, Berning J (2013). Wardlaw's Perspectives in Nutrition, McGraw- Hill International Edition, 9th edition
- B Srilakshmi Eighth Edition (2019). Nutrition Science. New Age International Publishers.
- Longvah T, Ananthan R, Bhaskarachary K and Venkaiah K (2017). Indian Food Composition Tables. National Institute of Nutrition, Indian Council of Medical Research, Department of Health Research, Ministry of Health and Family Welfare, Government of India, Hyderabad.
- Punita Sethi, Poonam Lakra (2015). Aahar Vigyan Suraksha evam Poshan. Delhi: Elite Publishing House Pvt.Ltd
- Puri S, Bhagat A, Aeri, BT, Sharma A (2019). Food Exchange List: A Tool for meal Planning. Elite Publishing House. New Delhi.
- Siddhu, A, Bhatia, N, Singh, K, Gupta, S (2017). Compilation of Food Exchange List, Technical Series 6, Lady Irwin College, University of Delhi Publ. Global Books Organisation, Delhi.

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DISCIPLINE SPECIFIC CORE COURSE
DSC HP 412: Communication Systems

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course (if any) |
|------------------------------|----------|-----------------------------------|----------|----------------------|----------------------|--|
| | | Lecture | Tutorial | Practical / Practice | | |
| Communication Systems | 4 | 3 | 0 | 1 | XII Pass | Appeared in Fundamentals of Communication |

Learning Objectives

- To gain an in-depth understanding of various communication systems and their applications in personal and professional life.
- To acquire knowledge about the applications of communication transactions in the field of Development Communication.
- To appreciate and recognize the importance of understanding self through concepts of self-concept, self-esteem and self-disclosure.
- To understand the nuances of different levels of communication ranging from intra personal communication to organizational as well as intercultural communication.
- To throw light on the role of communication transactions in persuasion and influencing desired changes in individuals and groups.

Learning Outcomes

- Develop an understanding of various communication systems and their relevance.
- Comprehend the various levels of communication transactions and their applications in Development Communication approaches.
- Gain understanding of self through self-concept, self-awareness and self-esteem.
- Recognize and appreciate various communication networks in personal and professional spheres.

- Understand how mass communication and media impact society through mass communication theories and models and their significance.

SYLLABUS OF DSC-412

THEORY (Credits 3; Hours 45)

UNIT I: Intrapersonal and Interpersonal Communication 9 Hours

The Unit I elucidate upon the various levels of communication transactions. This Unit in particular lays thrust on the Intrapersonal and Interpersonal Communication Systems and processes.

- Overview of communication transactions
- Intrapersonal Communication - Self Development, Looking Glass Self Theory, Self-concept and self-esteem, Awareness of Self & Johari's Window, Self-Disclosure
- Interpersonal Communication - Functions, Types of relationships- friendship, families, other relationships, Stages of relationship development, Interpersonal Competence
- Theories of Relationship Development - Social Exchange Theory, Uncertainty Reductions Theory, Interpersonal Relationship Model

UNIT II: Small Group and Organizational Communication 12 Hours

Unit II highlights the small group communication characteristics, functions and power of group conformity. It emphasizes on the organizational communication with focus on culture and leadership.

- Small group communication: Characteristics, Functions & Types
- Small Groups & Social Influence, Power in small group Conformity, Group Think, Polarization, Social Loafing
- Theories of group formation - Functional Theory, Structuration Theory, Symbolic Convergence Theory, Participatory theory
- Small Group Processes: Culture, Structure, Roles & Leadership
- Organization - concept, types and relationship in organization
- Organizational communication: Types: Formal Informal, Internal External, Direction & Networks, Functions, Tools used by organizations, challenges
- Organizational Culture and Leadership

UNIT III: Public, Intercultural and Mass Communication 12 Hours

Unit III highlights the Communication networks in professional and public spaces. It provides insight into the dynamics of intercultural communication. It also highlights the various theories and models of mass communication and emphasizes the significance and characteristics of various mass media.

- Public communication - Concept, types, techniques and skills in public speaking, qualities of an effective public speaker, overcoming speaker apprehension

- Intercultural communication-concept, importance and relevance, stages and barriers
- Mass Communication - concept, significance, functions and elements
- Models and theories of mass communication
- Mass Media - Characteristics, classification, Evolution, significance of print, electronic and web-based media in contemporary society

UNIT IV: Scope of Levels of Transactions in Communication

12 Hours

Unit IV emphasizes how communication transactions help in persuading, influencing and bringing out desired changes in individuals and groups. It strives to give conceptual clarity about use of communication in addressing conflict and strengthening personal and professional relationships.

- Application of levels of communication transactions for Influencing ideas attitudes and beliefs of individuals and groups
- Communications and building Self-Confidence, Self-development identity and personal branding
- Communication in conflict management, relationship development and repair
- Business communication and strengthening organizational processes and efficacy
- Communication approaches for Behaviour Change

PRACTICAL **(Credit 1; Periods 30)**

1. Self-Awareness & Analysis of Communication with self
2. Media design and production for group and mass communication
3. Evaluating & Designing communications for changing attitudes
4. Evaluation of various communication strategies for social change

Essential Readings:

- Anand, S. & Kumar, A., 2016, Dynamics of Human Communication. Orient Black Swan, New Delhi.
- Foss, K. A., Oetzel J. G., 2021, Theories of Human Communication. Waveland Press
- Kumar, K. J., 2020, Mass Communication in India. Jaico Publishing House, Mumbai.
- McQuail, D., 2000, Mass Communication Theories. Sage Publications, London
- Patri, V. R. and Patri, N., 2002, Essentials of Communication. Greenspan Publications

Suggested Readings:

- Baran, S., 2014, Mass Communication Theory. Wadsworth Publishing
- Devito, J., 2012, Human Communication. Harper & Row, New York
- Greene, J.O., 2021, Essentials of Communication Skills and Skill Enhancement. Taylor & Francis
- Stevenson, D., 2002, Understanding Media Studies: Social Theory and Mass Communication, Sage Publications
- Zeuschner, R., 1997, Communicating Today. California State University, USA

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DISCIPLINE SPECIFIC ELECTIVE
DSE HP 4A1 : Adolescent Relationships and Wellbeing

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the Course (if any) |
|--|---------|-----------------------------------|----------|---------------------|----------------------|---|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Adolescent Relationships and Wellbeing | 4 | 2 | 0 | 2 | XII Pass | Pass in Lifespan Development II: Middle Childhood and Adolescence |

Learning Objectives

- To study adolescent relationships across cultural contexts
- To understand adolescent relationships in relation to society, family and peers
- To understand well-being of adolescents and factors affecting wellbeing.

Learning outcomes

- The student will acquire knowledge about intra-personal and inter-personal adolescent relationships
- The student will develop an understanding of the concept and dimensions of wellbeing of adolescents in the contemporary social world.
- The student will engage in the use of various methods and tools to understand self and adolescence in diverse contexts

SYLLABUS OF DSE HP 4A1

THEORY
(Credits 2; Hours 30)

UNIT I Adolescence in diverse contexts

9 Hours

- Definitions, social construction of adolescence

- Adolescence across different ecological settings
- Cultural and social influences on adolescence

UNIT II Understanding adolescent relationships

9 Hours

- Family relationships: changing dynamics
- Peer relationships and friendships: self and identity; group dynamics
- Relationship with society and community
- Relationship beyond the family and peers: building intimate relationship

UNIT III Adolescent well- being

9 Hours

- Challenges of adolescence: Self, identity and well-being
- Indicators of well-being - physical/health, mental/cognitive, social– emotional, spiritual and moral
- Factors and experiences that influence well-being
- Promoting life skills and well-being: counselling, yoga, meditation, mindfulness

PRACTICAL (Credits 2; Hours 60)

1. Understanding self
 - SWOT analysis
 - Narratives/ autobiography/ diagrammatic representation of self
2. Understanding adolescence
 - Pilot research on understanding adolescence: well-being/ identity/body image
 - Interviews
 - Observations
 - Checklist
 - Movies/ documentaries/ videos
 - Book review
3. Promoting life skills and wellbeing: workshops/ lectures/ seminar
 - Socio-emotional well-being
 - Counseling/Yoga/Meditation
 - Life skills
 - Mindfulness

Essential Readings:

- Erikson, E.H. (1968). *Identity, youth and crisis*. New York: Norton.
- Manthei, R. (1997). *Counselling: The skills of finding solutions to problems*. London: Routledge.
- Rice, F. P. (2007). *Adolescent: Development, Relationships and Culture*. inc: US, Allyn & Bacon.

- Santrock, J. W. (2010). *Life Span Development: A Topical Approach*, New Delhi: Tata McGraw Hill.
- Sharma, N. (2009). *Understanding Adolescence*, New Delhi: National Book Trust.

Suggested Readings:

- Damour, L. (2017). *Untangled*. Atlantic Books.
- Deb, S., Bhadra, S., Sunny, A. M., & Sahay, S. (2019). *Childhood to Adolescence: Issues and Concerns*. Pearson Education.
- <http://archive.unu.edu/unupress/sample-chapters/1130-UnderstandingHumanWell-Being.pdf> , understanding human well-being, chapter 1, pp 3-15.
- IGNOU. Introduction to counseling (Block 1)
<https://egyankosh.ac.in/handle/123456789/23640>
- Jha, M. (Ed.) (2021). *Being an Indian Teenager*. Literaturelight Publishing.
- Morgan, N. (2018). *Positively Teenage*. Hachette Children's Group.
- Nair, M. K. C. (2010). *Adolescent Counselling*. Jaypee Brothers Medical Publishers.
- Notion Press (2022, December 14). *The Great Indian Teen Fiction Collective*.
- Ranganathan, N. & Wadhwa, T. (2017). *Guidance and Counselling for Children and Adolescents in Schools (India)*. SAGE Publications India Pvt Ltd.
- Saraswathi, T.S. (2003). *Cross-Cultural Perspectives in Human Development: Theory, Research and Applications*. SAGE Publications Pvt. Ltd
- Saraswathi, T.S. (2003). *The World's Youth: Adolescence in Eight Regions of the Globe*. Cambridge University Press
- Shah, G. J. & Thomas, S. (2021). *Adolescence in India*. Routledge India
- Smith, J. (2022). *Why Has Nobody Told Me This Before?* Harper One.

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DISCIPLINE SPECIFIC ELECTIVE
DSE HP 4B1 : Physiology and Promotive Health

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the Course (if any) |
|---------------------------------|---------|-----------------------------------|----------|---------------------|----------------------|--------------------------------------|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Physiology and Promotive Health | 4 | 2 | 0 | 2 | XII Pass | NIL |

Learning Objectives

- To learn about the structural organization of the human body.
- To understand the normal functioning of the organ systems and their interactions.
- To learn about modes of transmission of common communicable diseases and their prevention.
- To learn web of causation of Non communicable diseases and lifestyle disorders

Learning Outcomes

- Understand the knowledge about the structural organization of the human body.
- Develop insight of normal functioning of all the organ systems of the body and their interactions.
- Understanding modes of transmission of common communicable diseases and their prevention.
- Understanding causes of Non communicable diseases and lifestyle disorders.

SYLLABUS OF DSE HP 4B1

THEORY
(Credits 2; Hours 30)

UNIT I: Cardio-Respiratory and Gastric Physiology.

8 Hours

The unit presents the student with an understanding the structure and functioning of the Cardio-respiratory system and Gastro-Intestinal system.

Cardio-respiratory Physiology **3 Hours**

- Blood -Composition and function
- Blood circulations (systemic, pulmonary, coronary, and portal)
- Cardiac cycle, Heart Sounds &ECG
- Structure of lungs and its function

Gastro-intestinal Physiology **5 Hours**

- Structure of stomach, liver, gallbladder, pancreas, and their functions
- Composition, function and regulation of GI secretions

UNIT II Neuroendocrine, Renal & Reproductive Physiology **10 Hours**

The unit presents the student with the understanding of the structure and functions of the Neuroendocrine, Renal and reproductive system of the body.

Neuro-Endocrine Physiology **4 Hours**

- Organization of nervous system.
- Actions & disorders of Pituitary, Thyroid, Adrenal & Pancreatic hormones

Renal and reproductive Physiology **6 Hours**

- Structure of kidney and its function.
- Physiology of Menstruation, pregnancy, lactation, and Menopause

UNIT III Promotive Health and Community Health **12 Hours**

The unit presents the student with the understanding of the concept of health, disease and its prevention. This unit will also focus on communicable diseases, non-communicable diseases and community health.

Concept of Health, Disease, and its prevention **3 Hours**

- WHO definition of Health
- Epidemiological triad.
- Concept of Immunization, Immunization Schedule. Immunization during various stages of lifecycle of humans.
- Recent/Newer Vaccines
- Anticancer vaccines

Epidemiology of communicable diseases **4 Hours**

- Air borne infections: Tuberculosis, COVID
- Faeco-oral infections: Hepatitis, Enteric Fever

- Zoonotic diseases: Rabies
- Vector Borne diseases: Malaria & Dengue
- Sexually transmitted diseases: A.I.D.S

Epidemiology of Non-communicable diseases

2 Hours

- Hypertension
- Diabetes, PCOD
- Cancer

Community Health

3 Hours

- Maternal Health care: Antenatal Care, Family Planning, and Contraception
- Occupational health.

**PRACTICAL
(Credits 2; Hours 60)**

1. Case study of Iron deficiency Anemia, investigations and diagnosis.
2. Case Study of Enteric Fever
3. Case Study of Dengue
4. Case Study of HIV/AIDs
5. Measurement of Oxygen saturation by pulse oximeter and its relevance
6. Measurement of Blood pressure by using sphygmomanometer and its relevance
7. Clinical significance of variations in blood glucose and Diabetes mellitus. Use of Glucometer
8. Demonstration of clinical examination to see for pallor, cyanosis, jaundice, oedema and dehydration and their importance.
9. Basic First aid procedures and CPR
10. Preparation of a project on various contraceptive devices
11. Understanding Oncogenesis: Risk factors, danger signal & vaccines.

Essential Readings:

- Ganong WF (2019). Review of Medical Physiology, 26th ed. McGraw Hill.
- Guyton, AC.and Hall, JE (2011) Textbook of Medical Physiology, XII Edition, Harcourt Asia Pvt. Ltd/ W.B. Saunders Company. Longman Group Ltd.
- Marieb, E (2014). Human Anatomy and Physiology, 10th Edition, Addison-Wesley.
- Park JE and Park K (2021). Park's Textbook of Preventive and Social Medicine, 26th ed
- Bedi YP (2018), 17th Edition Handbook of Preventive and Social Medicine: Community Health/Community Medicine
- Practical Workbook of Human Physiology, K Sri Nageswari and Rajeev Sharma, 2nd Edition 2018
- Textbook of Practical Physiology, G K Pal and Pravati Pal 5th Edition (2020)
- A Textbook of Practical Physiology, CL Ghai, 8th Edition, (2013)

Suggested Readings:

- Ross and Wilson (2018). Foundation of Anatomy and Physiology, Medical Division 12th Edition

- Singh HD (2010). Handbook of Basic human physiology for paramedical students.
- <https://www.who.int/news-room/fact-sheets/detail/cancer> (Accessed March 19th 2023)
- <https://www.who.int/news-room/fact-sheets/detail/hiv-aids> (Accessed March 19th 2023)
- <https://www.who.int/news-room/fact-sheets/detail/dengue-and-severe-dengue> (Accessed March 19th 2023)
- https://www.who.int/health-topics/anaemia#tab=tab_1 (Accessed March 19th 2023)
- https://www.who.int/health-topics/contraception#tab=tab_1 (Accessed March 19th 2023)
- https://nhm.gov.in/images/pdf/guidelines/nrhm-guidelines/stg/Hypertension_full.pdf (Accessed March 19th 2023)
- <https://nvbdc.gov.in/Doc/National%20Guideline%20for%20Dengue%20case%20management%20during%20COVID-19%20pandemic.pdf> (Accessed March 19th 2023)
- <https://www.nhm.gov.in/images/pdf/guidelines/nrhm-guidelines/stg/stg-tb.pdf> (Accessed March 19th 2023)
- <https://www.nhm.gov.in/images/pdf/guidelines/nrhm-guidelines/stg/dengue.pdf> (Accessed March 19th 2023)

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DISCIPLINE SPECIFIC ELECTIVE
DSE HP 4C1 : NGO Management and Advocacy

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the Course (if any) |
|-----------------------------|---------|-----------------------------------|----------|---------------------|----------------------|--------------------------------------|
| | | Lecture | Tutorial | Practical/ Practice | | |
| NGO Management and Advocacy | 4 | 2 | 0 | 2 | XII Pass | NIL |

Learning Objectives

- To develop key management competencies and analytical in the management of NGOs.
- To develop understanding about the legal framework of NGOs and various issues/risk associated with NGOs.
- To develop basic understanding regarding the structure and functioning of NGOs with effective strategies for networking and fundraising
- To inculcate understanding of communication campaigning and advocacy with the importance of effective campaigning in achieving objectives and changing public policy through mediums like media, legislation, marketing, and advertising.

Learning Outcomes

The students would be able to:

- Gain an understanding of the unique nature of the non-government sector and distinguish it from the government (public) and business (for-profit) sectors.
- Explore the historical, theoretical, and legal perspectives on non-government organizations, as well as current trends and issues of consequence to non-government organizations.
- Develop an understanding of management techniques and leadership skills for enhancing the effectiveness of non-government organizations.
- Be able to design and assess the effectiveness of governance models, volunteer programs, organizational capacity, and inter-organizational relationships.

- Develop understanding of advocacy skills and knowledge and also key stages involved in developing an advocacy strategy.

SYLLABUS OF DSE HP 4C1

THEORY (Credits 2; Hours 30)

UNIT I: Introduction to Non-governmental Organizations

10 Hours

This unit introduces the concept and idea of non-governmental organizations, its relevance, and characteristics. It also provides an overview of the evolution NGOs, historical development of voluntary action with respect to the roles played by them within changing development frameworks.

- Meaning of NGO and GO and private sector
- Difference between Government Organizations and NGO
- Relationship between NGO, GO and private sector
- Characteristics of good NGO
- Structure of NGO
- Functions of NGO
- Classification of NGOs
- Historical evolution of NGOs
- Growth and status of NGOs in India
- Contribution and Role of NGOs in Development
- Mapping Voluntarism in the Third sector
- Challenges faced by NGOs.

UNIT II: Management of Non-governmental Organizations

12 Hours

This unit elaborates on the organizational structure and the various aspects of establishing and running an NGO. It focuses on the numerous challenges, problems and issues associated with NGOs. It elucidates about the different managerial strategies of NGOs, through planning, implementing, and monitoring activities strategically.

- Organizational types and structures
- Registration of NGO
- Legal Procedures for Establishment of NGOs
- Overview of Societies Registrations Act, India's Companies Act, Charitable Endowment Act and FCRA, Memorandum of Association and Bye Laws
- Tax Relief Under Section 80G
- Management of NGOs

- NGO management competencies
- Human Resource Management- Human Resource Policy, Staffing and Salaries
- Selection and training of Personnel
- Managing people and teams in NGOs
- Communication and Networking in NGOs
- Planning, Implementation and Evaluation strategy under NGO
- Fundraising
- Resource mobilization

UNIT III- Introduction to Advocacy

8 Hours

This unit describes the concept of advocacy and campaigning highlighting its relevance, in the contemporary times. It focuses on the process of advocacy and planning an advocacy campaign. It explores the relationship between advocacy, programme communication and social mobilization through diverse platforms

- Concept and relevance of Advocacy
- Types or approaches of Advocacy
- Steps in planning an Advocacy Campaigns
- Tools and Techniques of Advocacy
- Elements of an advocacy strategy
- Advocacy Planning Cycle - planning advocacy campaigns for different stakeholders
- Case studies of advocacy campaigns
- Community Advocacy
- Media Advocacy
- Relationship between advocacy, programme communication and social mobilization

PRACTICAL (Credits 2; Hours 60)

1. Visit to Non-government organizations
2. Profiling of NGOs
3. Evaluation of promotional/IEC materials developed by NGOs
4. Case studies and Evaluation of Advocacy Initiatives/ Campaigns
5. Planning an advocacy campaign

Essential Readings:

- R. Kumar, S. L. Goel. (2005). Administration and Management of NGOs: Text and Case Studies Paperback. Deep & Deep Publications, India. ISBN 8176296015.
- S. Chandra (2003). Guidelines for NGO Management in India. Kanishka Distributors, New Delhi. ISBN 978-8173916038.

- D. Lewis (2001). Management of Non-Governmental Development Organization. Second Edition, Routledge, New York. ISBN 9780203002162.
- Subedi, N R, (2008). Advocacy Strategies and Approaches: A Training of Trainers Manual. International Centre for Integrated Mountain Development (ICIMOD). ISBN : 9291150830
- Abraham, A. (2003). Formation and Management of NGOs. Third Edition, Universal Law Publishing Co. Pvt Ltd., New Delhi. ISBN 9350350122.

Suggested Readings:

- Sundar, P. (2013). Business and Community: The Story of Corporate Social Responsibility in India. New Delhi, Sage Publication. ISBN 978-81-321-0955-6.
- Agarwal, S.K. (2008). Corporate Social Responsibility in India, Sage publication Pvt. Ltd. <https://doi.org/10.4135/9788132100027>.
- Lewis. D. (2014). Non-governmental Organizations: Management and Development. 3rd Edition. Routledge. ISBN 9781138294097.
- Til, J.V. (1988). Mapping the Third Sector: Voluntarism in a Changing Social Economy. Foundation Centre, New York. ISBN 0879542403.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time

DISCIPLINE SPECIFIC ELECTIVE
DSE HP 4D1 : Fabric Construction

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the Course (if any) |
|---------------------|---------|-----------------------------------|----------|---------------------|----------------------|--------------------------------------|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Fabric Construction | 4 | 2 | 0 | 2 | XII Pass | NIL |

Learning Objectives

- To provide students with knowledge of various production techniques.
- To learn about the various standard test methods required for the evaluation of various types of fabrics

Learning Outcomes

- Demonstrate an understanding of various types of fabric forming methods.
- Familiarise students with the types and scope of technical textiles.
- Acquire skills to inspect, manage and control quality in the textile industry.

SYLLABUS OF DSE HP 4D1

THEORY
(Credits 2; Hours 30)

UNIT I: Weaving

10 Hours

- Structure and components of woven fabric: warp, weft, selvedge, grain
- Yarn preparation for weaving
- Weaving operations
- Types of Loom: shuttle and shuttleless looms
- Types of weaves: Basic and Decorative
- Blended Fabrics

UNIT II: Knitting**8 Hours**

- Structure and components of knitted fabric: courses, wales
- Yarn preparation for knitting
- Knitting needles
- Knitting process and machines
- Knit fabric stitches
- Knitted fabric classification: Warp and Weft knits
- Techniques for knitwear production- fully-cut, fully-fashioned and integral.

UNIT III: Non-wovens**6 Hours**

- Production of non-woven
- Types of non-woven fabrics and their properties
- Application in various sectors- apparel and industrial

UNIT IV: Other methods of fabric construction**4 Hours**

- Nets
- Laces
- Braiding
- Knotting

UNIT V: Technical Textiles**2 Hours**

Definition and Examples

PRACTICAL
(Credits 2; Hours 30)

1. Yarn Count : Direct and Indirect
2. Dimensional Stability of cotton and wool and knitted fabric
3. Identification of weaves, point paper diagrams
4. GSM
5. Drape
6. Crease recovery
7. Bending length
8. Tear strength
9. Fabric analysis

Essential Readings:

- Brackenbury, T. (2005). *Knitting Clothing Technology*, Blackwell Science Publishers
- Corbman P. B., (1989), *Textiles- Fibre to Fabric*, 6th edition, Mc Graw Hill, New York.
- Horrock A.R. and Anand, S.C. (2000). *Handbook of Technical Textiles*, Cambridge: Woodhead Publishing.
- Joseph, M.L., (1988) *Essentials of Textiles* (6th Edition), Holt, Rinehart and Winston Inc.,

Florida.

- Rastogi, D. and Chopra, S. (Ed) (2017) *Textile science*, India: Orient Black Swan Publishing Limited.
- Sekhri S. (2022) *Textbook of Fabric Science: Fundamentals to Finishing*, 4E, Delhi: PHI Learning Private Ltd.
- Sekhri S. (2023) , वस्त्र विज्ञान (Vastra Vigyaan). Delhi: PHI Learning Private Ltd.
- Spencer, D.J. (2005) *Knitting Technology: A Comprehensive Handbook and Practical Guide*, 4th ed. Cambridge: Woodhead Publishing.

Suggested Readings:

- Booth, J. E. (1964) *Principle of textile testing an introduction to physical methods of testing textile fibers, yarns, and fabrics*. 2nd Edition. London: Meanness Butterworths.
- Saville, P. B. (1999) *Physical testing of textiles*. Cambridge: Woodhead Publishing Limited.
- Skinkle, J.H. (1940) *Textile Testing*. New York: Chemical Publishing Co. Inc. Brooklyn

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DISCIPLINE SPECIFIC ELECTIVE
DSE HP 4E1 : Human Capital Management

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the Course (if any) |
|--------------------------|---------|-----------------------------------|----------|---------------------|----------------------|---|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Human Capital Management | 4 | 2 | 0 | 2 | XII Pass | Appeared in Introduction to Resource Management |

Learning Objectives

- To understand the importance of human capital and their effective management in an organisation.
- To comprehend functions of human capital management.
- To sensitize towards the emerging trends and applications of human capital management.

Learning outcomes

After completing the course, students will be able to :

- Develop an understanding about the discipline of human capital management.
- Acquire knowledge about the functions and key areas of human capital management as a people's dimension.
- Gain insight into emerging trends and modern practices in the field of human capital management for growth and optimizing performance.

SYLLABUS OF DSE HP 4E1

THEORY
(Credits 2; Hours 30)

UNIT I: Human Resource Management

4 Hours

The focus of this unit would be on developing the fundamental concepts of human resource management and its applicability in changing business environment.

- Concept, functions, roles, skills and competencies
- Changing environment of HRM- Globalization, corporate downsizing, cultural environment, work force diversity, changing skill requirement, technological changes.
- HRM support for improvement programs -re engineering processes, contingent workforce, decentralized work sites.

UNIT II: Human capital: concept and data

10 Hours

This unit attempts to acquaint the students in understanding the functions of human capital management.

- Human capital concept, HRM vs HCM
- Human resource & capital management Concept, functions, roles, competencies
- Process of HCM, HCM drivers, Human capital measurement journey, measuring HR.
- Human capital data, types of data, a guide to data management.
- Measuring human capital, classification of measures.
- Approaches to measurement

UNIT III: Human Capital Management

10 Hours

This unit will help students to gain insights about the components of HR system used in an organization for auditing purposes to check its effectiveness.

- Measuring human capital, measurement issues, classification of measures, developing measures- measurement models (human resource accounting, balance scorecard, HR scorecard, workforce scorecard)
- Human capital monitor
- Organizational performance model
- Human capital index
- Engagement model
- People and performance model

UNIT IV: Applications of HCM

6 Hours

This unit will help students to understand the applications of HCM

- Human capital value
- HCM and strategic HRM
- HCM and talent management
- Performance and reward management

PRACTICAL
(Credits 2; Hours 60)

1. Human Capital Management
 - Analysis of human capital management environment and HR audit in an organization through case-studies.
 - Understanding human capital management practices
2. Human Capital Management: Functions and Key Areas
 - Human capital metrics viz-a-viz key performance indicators
 - Performance appraisal and management (methods)
 - Simulation on human capital data management and talent management.
3. Applications of HCM
 - Introduction to HCM tools and HCMS application
 - Preparation of HCM tool as per modern workforce trends for optimizing productivity.

Essential Readings:

- Aswathappa K. (2021). *Human Resource Management Text and Cases* (9th Ed.) McGraw Hill Education India.
- Decenzo, D. A., & Robbins, S. P. (2011). *Fundamentals of Human Resource Management*. Wiley.
- Dessler G. (2020). *Human Resource Management*. Prentice Hall of India Pvt. Ltd.
- Mark Salsbury (2021) *Human Capital Management: Leveraging Your Workforce for a Competitive Advantage*.
- Rao, V.S.P. (2010). *Human Resource Management*.(3rd ed.) Excel Books.
- Wilson Wong, Valerie Anderson, Heather Bond. (2019) *Human Capital Management Standards, A Complete Guide*. Kogan publisher.

Suggested Readings:

- Ivanecevich, J.M.(2010). *Human Resource Management*. (10th ed.). Tata McGraw Hill Education Pvt. Ltd.
- Noe, R.A., Hollenbeck, Gerhart and Wright (2012). *Fundamentals of Human Resource Management* .(3rd ed.), McGrawHill Education Ltd.
- Subbaroo, R. (2007). *Personnel and HRM – Text and Cases*. Himalaya Publishing House.
- Vance, C.M. and Paik, Y. (2009). *Managing a Global Workforce: Challenges and Opportunities in International Human Resource Management*. PHI Learning.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time

Based on Undergraduate Curriculum Framework 2022

दिल्ली विश्वविद्यालय
UNIVERSITY OF DELHI

Bachelor of Science in Home Science

or

**Bachelor of Science (Prog.) Home Science with Dissertation/
Academic Projects/ Entrepreneurship**

*Under UGCF-2022 based on NEP-2020
(Effective from Academic Year 2022-23)*



Syllabus as approved by Academic Council

Date:

No:

Executive Council

Date:

No:

Department of Home Science
Semester – V

B.Sc. (Prog.) Home Science

| Paper No | Paper title | Credits | |
|------------|--|---------|-----------|
| | | Theory | Practical |
| DSC HP 513 | Space Planning and Sustainability | 3 | 1 |
| DSC HP 514 | Indian Textile Heritage | 3 | 1 |
| DSC HP 515 | Extension Management | 3 | 1 |
| DSE HP 5A1 | Developmental Delay and Disability in Childhood | 2 | 2 |
| DSE HP 5A2 | Laws, Policies and Programmes for Children, Women and Families | 2 | 2 |
| DSE HP 5B1 | Nutritional Biochemistry | 2 | 2 |
| DSE HP 5B2 | Advanced Human Nutrition | 2 | 2 |
| DSE HP 5C1 | Information and Communication Technologies for Change | 2 | 2 |
| DSE HP 5C2 | Digital Marketing and Advertising | 2 | 2 |
| DSE HP 5D1 | Pattern Making and Construction for Women's Wear | 2 | 2 |
| DSE HP 5D2 | Designing for Children's Wear | 2 | 2 |
| DSE HP 5E1 | Entrepreneurship and Enterprise Management | 2 | 2 |
| DSE HP 5E2 | Innovation and Design Thinking | 2 | 2 |

UG Programme for Bachelor in B.Sc. Home Science (Prog.) degree in three years

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

DISCIPLINE SPECIFIC CORE COURSE DSC HP 513: Space Planning and Sustainability

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course (if any) |
|-----------------------------------|---------|-----------------------------------|----------|---------------------|----------------------|---|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Space Planning and Sustainability | 4 | 3 | 0 | 1 | XII Pass | Appeared in Personal Finance and Consumer Education |

Learning Objectives

- To understand the fundamentals of space planning.
- To acquire knowledge regarding materials, building construction techniques and technologies.
- To comprehend sustainable parameters in space design.

Learning Outcomes

- Comprehend the concept of design applicable to interior spaces.
- Understand the application of materials and finishes to create aesthetic and sustainable interiors.
- Comprehend the concept of sustainability and green rating systems.

SYLLABUS OF DSC HP 513

UNIT I: Basic Concepts in Space Planning

10 Hours

This unit will develop understanding regarding the concept of space planning and designing.

- Concept of space as a resource, characteristics of space
- Principles of planning spaces
- Zoning
- Types of houses: Independent houses and Apartments.
- Contemporary Housing - Service Apartments, Senior living.
- Building bye-laws – NBC and MPD

UNIT II: Construction Features in Building Design

15 Hours

This unit will acquaint students with various elements of building construction important for developing a strong structure.

- Site selection
- Conventional and Non-conventional building materials, sustainable building materials
- Structural components of a building (Material and Types) – Foundation, Walls, Flooring, Roofs, Doors and Windows, Staircase.
- Basic building services
- Landscaping
- Earthquake resistant structures
- Home Automation

UNIT III - Concept of Space Design

15 Hours

This unit will introduce students to the area of space design such as elements and principles of design, furniture and furnishings and wall treatment.

- Introduction to Elements and Principles of design
- Concept of Colour in Interior Design - Colour Theories, Colour Psychology, Colour Schemes, Colour Forecasting
- Energy Efficient Lighting Systems.
- Furniture - Types, Selection criteria, Arrangement
- Furnishings - Home Furnishing, Window treatment, Floor Coverings
- Wall treatment
- Use of sustainable material in space design

UNIT IV: Sustainable built environment

5 Hours

This unit will introduce students to the concept and application of sustainability in built environment.

- Introduction to sustainable built environment
- Green building rating guidelines in India – GRIHA and LEED
- Concept of Smart Cities

PRACTICAL (Credits 1; Hours 30)

1. Introduction to building terminologies, Concept of Scale, building constructions symbols
2. Evaluation of floor plans on the basis of principles of space planning
3. Preparation of floor plans
 - Multipurpose rooms/ studio apartment (Computer aided / manual)
4. Identification and characteristics of different building materials
5. Case study of a Green Building
6. Project on Landscaping / Home Automation

Essential Readings:

- Goel S., Seetharaman P. Kakkar, A. (2015). *Manual on Interior space designing*, Elite publishers.
- Goldstein, H. & Goldstein, V. (1988). *Art in Everyday Life (4th ed.)*, Oxford & IBH Publishing Co.
- Indian Green Building Council. (2022). *Introduction to Green Buildings and Built Environment*, BSP Books.
- Kumar, S. (2008). *Building Construction*, Standard Publisher.
- Rao, M.P. (2020). *Interior Design Principles and Practices*, Standard Publishers Distribution.

Suggested Readings:

- Duggal S.K. (2017). *Building Materials*. CRC Press.

- Green Rating for Integrated Habitat Assessment (GRIHA). (2021). *GRIHA Manuals*, GRIHA Council.
- Grimley, C. and Love, M. (2018). *The Interior Design Reference & Specification Book*, Rockport Publishers.
- Indian Green Building Council. (2021). *IGBC Manuals*, IGBC.
- Iyer, G. H. (2022). *Green Building Fundamentals*, Notion Press.
- Mitton, M. and Nystuen, C. (2021). *Residential Interior Design: A Guide to Planning Spaces (4th ed.)*, Wiley.
- Singh, G. (2019). *Building Construction and Materials*, Standard Publishers.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time

DISCIPLINE SPECIFIC CORE COURSE
DSC HP 514: INDIAN TEXTILE HERITAGE

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course(if any) |
|-------------------------|---------|-----------------------------------|----------|---------------------|----------------------|--------------------------------------|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Indian Textile Heritage | 4 | 3 | 0 | 1 | XII Pass | Appeared in Fundamentals of Textiles |

Learning Objectives

- To study the traditional textile arts in their historical perspective, the impact of modernization and their contemporary status.
- To create awareness about the khadi, handloom and handicraft sectors and measures undertaken by organisations for their sustenance.
- To impart knowledge of fundamentals of textile storage and conservation

Learning Outcomes

- Explain history, construction and design of selected traditional woven fabrics.
- Recognize and identify embroidered fabrics of different states in terms of stitches and designs.
- Describe our heritage of varied dyed, painted and printed fabrics.
- Provide an insight into the evolution and socio-economic significance of khadi, handloom and handicraft sectors.
- Discuss sustenance of traditional textile crafts and interventions by organisations.
- Analyse the textile arts in their historical perspective, the impact of modernisation and their contemporary status.
- Classify conservation techniques and recognize signs of deterioration of textiles.
- Carry out care and conservation of traditional textiles

SYLLABUS OF DSC HP 514

THEORY

(Credits 3; Hours 45)

UNIT I: Study of Textile Crafts of India: with reference to history, production centers, techniques, designs, colours and products.

This unit lays thrust on history, making and design details of various textile crafts of India

- Classification of Traditional Indian Textiles, craft centres. **6 Hours**
- Woven Textiles-Banaras Brocades , Jamdanis and Baluchars of Bengal, Kani Shawls of Kashmir, Kanjivaram sarees of Tamil Nadu **6 Hours**
- Embroidered Textiles-Kanthas of Bengal, Kasuti of Karnataka, Phulkari of Punjab, Chikankari of Uttar Pradesh, Kashida of Kashmir, Gujarat embroideries **8 Hours**
- Painted and Printed textiles –Kalamkaris of Andhra Pradesh, Dabu printing of Rajasthan, Ajrakh printings of Gujarat **6 Hours**
- Dyed textiles –Bandhnis of Rajasthan and Gujarat, Ikats- Patola of Gujarat **4 Hours**

UNIT II: Status of Traditional Textiles in Modern India 7 Hours

This unit highlights on the socio economic importance of the traditional textile industries. It also emphasizes on the role of organizations in sustenance of textile crafts

- Evolution and socio-economic significance of Khadi, Handloom and Handicraft sector
- Sustenance of traditional textile crafts
- Interventions by organizations

UNIT III: Conservation of Textiles 8 Hours

This Unit highlights on very important area - Conservation of textiles. It provides insight into the types of conservation along with degradation factors that affect textiles. It also highlights the care and storage methods that can be used to prolong the life of textiles

- Types of Conservation- Preventive and Curative
- Factors affecting deterioration of textiles
- Care and storage of textiles

PRACTICAL (Credit 1; Hours 30)

1. Resist Dyeing Techniques
 - Tie & dye using various techniques on natural fabrics
 - Batik on cotton
2. Printing
 - Block printing: pigment
 - Screen printing: pigment
3. Embroidery stitches of traditional embroideries
4. Portfolio development-Traditional textile crafts
5. Product development
6. Visit to craft centers/museums: Craft documentation report on any one craft

Essential Readings:

- Agarwal, O.P., 1977, Care and Presentation of Museum projects – II, NRL
- Barnard, N., Gillow, J., 1993, Indian Textiles, Thames and Hudson, USA
- Chattopadhyaya, K.D., 1995, Handicrafts of India, Wiley Eastern Limited, N Delhi

- Crill, R., 2015, The Fabric of India, Victoria and Albert Museum, UK
- Das, Shukla, 1992, Fabric Art- Heritage of India, Abhinav Publications, N Delhi.
- Evaluation study on khadi and village industries programme, (2001) Programme evaluation organization planning commission government of India, New Delhi. Chapter 1 & 2, pg 1-9
- Grundy & Northedge, (1998) Standards in the Museum Care of Costume and Textile Collections, Museums & Galleries Collection, Spin Offset Limited, Chapter 7-14, pg 35-54
- Mausumi Kar, (2015), The Indian Textile and Clothing Industry An Economic Analysis, Springer New Delhi Heidelberg New York Dordrecht London, Chapter 1& 2, pg 12-33.
- Pandit Savitri, 1951, Indian Embroidery- Its Variegated Charm, Pandit Publisher, Baroda
Embroidery tutorials, video links of woven textiles and slide share

Suggested Readings:

- Annual Report, (2002-2003), Handloom Industry, Ministry of textiles, Chapter 5, pg 1-20
- Chelna Desai, 1988, Ikats Textiles of india, Chronicle Books, India
- Craft Documentaries on Youtube; As accessed on Mar. 2023
- Pandit Savitri, 1951, Indian Embroidery- Its variegated charm, Pandit Publisher, Baroda
- Karolia, Anjali, 2019, Traditional Indian Handcrafted Textiles, Niyogi Publishers

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DISCIPLINE SPECIFIC CORE COURSE -15
DSC HP 515: Extension Management

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course (if any) |
|----------------------|---------|-----------------------------------|----------|---------------------|----------------------|--------------------------------------|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Extension Management | 4 | 3 | 0 | 1 | XII Pass | Appeared in Communication Systems |

Learning Objectives

- To orient the students to the concept and scope of extension in development.
- To understand the principles and process of Extension Programme Design and Management.
- To develop skills for using participatory approaches in Extension Programme Management.
- To provide knowledge about various development schemes and programmes in India.

Learning Outcomes

The students would be able to:

- Learn the concept of extension in a holistic manner with respect to national development.
- Get insights on the principles and process of Extension Programme Design and Management.
- Develop skills for using various participatory approaches in a programme management.
- Gain knowledge of various development schemes and programmes in India.

SYLLABUS OF DSC HP 515

THEORY
(Credits 3; Hours 45)

UNIT I: Extension: concept and principles

9 Hours

This unit provides deeper understanding on the fundamental concepts of Extension and its application to national development.

- Extension: history, concept, goals, philosophy and scope
- Typology of extension and approaches to Extension
- Concept of Andragogy, Andragogy vs. Pedagogy

- Principles of Extension
- Relationship between Communication and Extension - role of Extension in development
- Methods of community contact in Extension

UNIT II: Stakeholder, Participation and Leadership

12 Hours

This Unit highlights the significance of people's participation as a pre-requisite in any extension programme and develop skills in the same.

- Stakeholders in development
- People's participation and social mobilization in development, typology of participation
- Participatory Learning and Action – concept, principles, classification of tools and techniques
- Leaders in extension – functions, types and leadership styles and theories
- Diffusion of innovation and adoption – concept, theory and application

UNIT III: Programme Management

12 Hours

This unit emphasizes on the principles and process involved in designing a programme and its management. The unit also gives conceptual clarity on project cycle and the different models of extension programme management.

- Project cycle- goals, objectives, indicators, outputs and outcomes
- Conceptual framework and Principles of extension program management
- Models of extension programme management - overview of models, Sandhu's model, Logic model
- Monitoring and Evaluation

UNIT IV: Development Programmes

12 Hours

This unit provides an in-depth understanding of the various development schemes and programmes initiated as part of extension.

- Development issues and goals- national and international perspectives, Sustainable Development Goals
- Contemporary National Development Programmes (related to education, employment, income, health and nutrition, digitalization and women) – objectives, target groups, salient features, monitoring and evaluation, partnership and funding, outcomes and communication support

PRACTICAL **(Credit 1; Hours 30)**

1. Assessing the leadership skills in a case-study format
2. PLA as needs assessment tools
3. Approaches to the Adult Education
4. Developing skills in planning and using individual and small group methods in extension

Essential Readings:

- Beck, S., 2022, Communication in the 2020s. Routledge, New York
- Kumar, S., 2002, Methods for community participation: a complete guide for practitioners. Vistaar Publications, New Delhi
- Ray G.L., 2015, Extension, Communication and Management, Kalyani Publications, New Delhi
- Sandhu, A S., 2018, Extension Programme Planning. Oxford and IBH Publishers, New Delhi
- Singh, S., 2022, A Brief Book on Extension Education. New Vishal Publications, New Delhi
- Singh, A K., 2020, Frontline Extension in India Innovations and Reforms. Biotech Publisher, New Delhi
- Supe, S V., 2019, An Introduction to Extension Education. Oxford & Ibh Publishing Co. Pvt Ltd, New Delhi

Suggested Readings:

- Bhatnagar. O.P & Dahama, O.P., 2009, Education and Communication for Development 2ed. Oxford & IBH Publishing Co. Pvt Ltd, New Delhi
- Dale R., 2004, Evaluating Development Programmes and Projects. Sage Publications, New Delhi
- Kumar & Hansra, 2000, Extension Education for Human Resource Development. Concept Publishing Company, New Delhi
- Mikkelsen, B., 2002, Methods for Development Work and Research. Sage Publications, New Delhi

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time

DISCIPLINE SPECIFIC ELECTIVE
DSE HP 5A1 : Developmental Delay and Disability in Childhood

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the Course (if any) |
|---|---------|-----------------------------------|----------|---------------------|----------------------|---|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Developmental Delay and Disability in Childhood | 4 | 2 | 0 | 2 | XII Pass | Appeared in Lifespan Development II: Middle Childhood and Adolescence |

Learning Objectives

- To understand the perspectives and models of disability.
- To know major types of disabilities, the causes, prevention, characteristics of the disabilities and barriers which persons with disability face.
- To understand importance of early identification and early intervention, and inclusion.

Learning outcomes

- Students will understand concept of disability.
- Students will be able to demonstrate understanding and knowledge of the etiology of a wide range of disabilities.
- Students will understand and demonstrate knowledge of the characteristics of children with different disabilities.
- Student will learn simple skills for planning classroom activities for children with disabilities.

SYLLABUS OF DSE HP 5A1

THEORY
(Credits 2; Hours 30)

UNIT I - Introduction to Disability

6 Hours

Unit Description: The unit will provide an understanding of the meaning of disability and developmental delays and help understand how disability is defined through various models,

Subtopics:

- Definition of disability
- Models of disability
- Social construction of disability
- Linking disability to delay in development

UNIT II- Types of Disabilities: causes and symptoms

14 Hours

Unit Description: The unit will focus on major disabilities, their causes, signs and symptoms.

Subtopics:

Causes, Signs and Symptoms of the following disabilities

- Physical disabilities
- Intellectual disability
- Sensory disabilities
- Visual and auditory
- Learning disability
- Autism

UNIT III- Strategies for rehabilitation

10 Hours

Unit description: This unit will help students develop an understanding of the role of family, legal system and best practices in rehabilitation of children with disabilities

Subtopics:

- Role of family
- Legal provisions
- Early identification and early intervention
- Inclusion

PRACTICAL (Credits 2; Hours 60)

UNIT I

30 Hours

- Exploring audio-visual sources with reference to children with disabilities and their families.
- Understanding barriers to disability using interviews, questionnaires, surveys.
- Visits to organizations working with children with disabilities.
- Observations of children with disabilities.
Case profile of a child with disability / an organisation working with disability.

UNIT II

30 Hours

- Preparing developmental checklists for assessment of developmental delays.
- Planning developmentally appropriate material for children with disabilities
- Preparing IEC material for generating awareness in community about disabilities.
- Selected psychometric tests (Raven Progressive Matrices, Portage, Tests for detecting Learning Disabilities, Disability Screening Schedule)

Essential Readings:

- Chopra,G., (2012). Early Detection of Disabilities and persons with disabilities in the

community. New Delhi: Engage publications.

- Chopra, G., (2012). Stimulating Development of Young Children with Disabilities at Anganwadi and at Home: A Practical Guide. New Delhi: Engage publications.
- Heward, W.L., (Ed) (2000). Exceptional children: An introduction to special education. New Jersey: Prentice-Hall Inc.,
- Hardman, M.L., Drew ,C.J., Egan, M.W. (2014) Human exceptionality: School, Community and Family. Wadsworth Cengage Learning
- Mangal, S. K. (2007). Exceptional children: An introduction to special education. New Jersey: Prentice-Hall Inc.,
- Premananda M., Srinivas R., K. Sridevi, (2019) Introduction to Disabilities. 1st edition Neelkamal Publications

Suggested Readings:

- Chopra, G. (2015). Child rights in India: Challenges and social action. New Delhi: Springer (India) Pvt. Ltd., Chapter 9, pg 205-233
- Mastropieri, M. A., & Scruggs, T. E. (2004). The inclusive classroom: Strategies for effective instruction. NY: Pearson.
- Werner, D. (Ed) (2018). Disabled village children: A guide for community health workers, rehabilitation workers, and families. United States of America: Hesperian Health Guides.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time

DISCIPLINE SPECIFIC ELECTIVE
DSE HP 5A2 : Laws, Policies and Programmes for Children, Women and Families

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course(if any) |
|--|---------|-----------------------------------|----------|---------------------|----------------------|---|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Laws, Policies and Programmes for Children, Women and Families | 4 | 2 | 0 | 2 | XII Pass | Appeared in Lifespan Development II: Middle Childhood and Adolescence |

Learning Objectives

- To orient students to the concept of child rights
- To familiarize them with the existing laws, policies and programmes for children, women and families
- To gain an understanding of the implementation process of policies and programmes for children, women and families and the role of various stakeholders.

Learning Outcomes

- The students will understand why child rights are important
- The students will demonstrate an understanding of current social policies for children and women in India
- The students will develop understand the policies and programmes for children, women and families

SYLLABUS OF 5A2

THEORY
(Credits 2; Hours 30)

UNIT I: Introduction to the Rights based Approach

8 Hours

The focus of this unit would be on developing an understanding of the concept of rights, international conventions and constitutional provisions.

Subtopics:

- Concept of Child Rights and why they are important
- Situational analysis of children in India
- Children in difficult circumstances

- Factors of exclusion- socio-economic, gender, geo-political
- International Conventions on the rights of children, women, and families

UNIT II: Legislations for Children, Women and Families

14 Hours

This unit will help students to gain insight into the laws concerning children, women and families

Subtopics:

- Laws for children: Juvenile Justice Act, Protection of Children from Sexual Offences Act, Child Labour Prohibition & Regulation Act, Prohibition of Child Marriage Act
- Laws for Women: Prenatal Diagnostics Techniques Act, Dowry Prohibition Act, Protection of Women from Domestic Violence Act, Sexual Harassment of Women at Workplace
- Family Laws: Guardians and Wards Act, Hindu Adoption and Maintenance Act, Special Marriage act, Maintenance and Welfare of Parents and Senior Citizens Act

UNIT III: Policies, Programmes and the Implementation process

8 Hours

This unit attempts to acquaint the students with the various facets of the policies and programmes for children, women and families and the role of the various stakeholders in the implementation process

Subtopics:

- Constitutional Provisions for children and women
- Policies for children, women, and families
- Major Programmes for children, women, and families
- Role of Government, Public-private partnership, NGOs and CSR in the implementation of programmes

PRACTICAL (Credits 2; Hours 60)

1. Interview of children in difficult circumstances exploring their lives
2. Survey to explore awareness of child rights and laws for women and children
3. Preparing PPTs and making presentations on vulnerable groups of children
4. Focus group discussion to understand gender realities in different social groups
5. Understanding the concept of rights through audio/visual aids (Movies/Documentaries)
6. Visit government (CWCs, Observation Homes) and non-government institutes/centres working for specially disadvantaged groups of children
7. Review of research papers on the issues of rights of children of specially disadvantaged groups and women rights
8. Preparing posters/flipbooks/social media content for advocacy of laws
9. Workshops/Lectures to understand the various aspects of the implementation of laws and policies
10. Program planning of a workshop for creating awareness of policies and programmes

Essential Readings:

- Bhargava, V. (2005). *Adoption in India: Policies and Experiences*. Sage Publications.
- Chopra, G. (2015). *Child rights in India: Challenges and social action*. Springer
- Chopra, G. (2021). Child protection in India: From silos to systems. In S. Puri (Ed.),

Children

India: Opportunities and Challenges (25-42), Nova Science Publishers.

<https://pesquisa.bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/pt/covidwho-1801302>

- Gangoli, G. (2016). *Indian feminisms: Law, patriarchies and violence in India*. Routledge.
- Halder, D. (2018). *Child sexual abuse and protection laws in India*. SAGE
- Jancic, C. O. (2016). (Ed.). *The Rights of the Child in a Changing World 25 Years after the UN Convention on the Rights of the Child*. Springer.
- Rathore, V. (2019). *An insight into Indian Juvenile Justice System*. Notionpress.
- Selected Legislations for Children and Women. Ministry of Women and Child Development GOI website www.wcd.nic.in/
- United Nations Development Programme. (2022). *Human Development Report 2021-22*. <https://hdr.undp.org/content/human-development-report-2021-22>

Suggested Readings:

- Agnes, F. (1999). *Law and Gender Inequality: The Policies of Women's Rights in India*. Oxford University Press.
- Bajpai, A. (2017). A child's right to a family: Deinstitutionalization—In the best interest of the child. *Journal of National Human Rights Commission*, 16, 199–216. http://nhrc.nic.in/sites/default/files/nhrc_journal_2017.pdf
- Biswas, T. (2008). *Human Rights, Gender and Environment*. In N. Pradhan (Ed.), *Laws, Institutions and Rights in India*. Viva Books.
- Begum, S. M. (Ed.). (2000). *Human Rights in India: issues and perspectives*. APH Publishing.

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DISCIPLINE SPECIFIC ELECTIVE
DSE HP 5B1: Nutritional Biochemistry

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course(if any) |
|--------------------------|---------|-----------------------------------|----------|---------------------|----------------------|--|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Nutritional Biochemistry | 4 | 2 | 0 | 2 | XII Pass | Appeared in Foundation of Food Science and Nutrition |

Learning Objectives

- To provide basic concepts of biomolecules, the basic building blocks vital for various life forms
- To focus on key structures, properties and biological functions of biomolecules

Learning Outcomes

- Understanding of the biochemical basis of macro- and micro- nutrients
- Developing an insight into structures, functions and biochemical role of carbohydrates, proteins, lipids, vitamins and minerals.

SYLLABUS OF DSE HP 5B1

THEORY
(Credits 2; Hours 30)

UNIT I: Unit I: Carbohydrates

8 Hours

This unit lays emphasis on structures, properties and significance of carbohydrates.

- Introduction, definition and classification
- Structures of monosaccharides- glucose, fructose, mannose and galactose
- Structures of disaccharides – maltose, lactose and sucrose
- Structures and biological role polysaccharides– dextrin, starch and glycogen
- Stereoisomerism of monosaccharides (Keto-aldo, D- and L-isomerism, optical isomerism, epimerism and anomerism)
- General chemical properties of monosaccharides (oxidation, reduction, osazone

formation, action of alkali and glycoside bond formation)

UNIT II: Lipids

6 Hours

This unit highlights on definition, classification and biological role of fatty acids and lipids.

- Introduction and structures of fatty acids (saturated and unsaturated)
- Essential and non-essential fatty acids
- Acid value, iodine value, saponification value and hydrogenation
- Definition, classification and functions of lipids
(storage lipids-triacylglycerols; Membrane lipids-phospholipids and sphingolipids)

UNIT III: Amino acids and Proteins

10 Hours

This unit gives an overview of amino acids and their role as building blocks of proteins.

The students would acquire knowledge on structure of proteins. The unit would also cover basic concepts of enzymes and their catalytic action.

- Introduction, classification and structures of standard amino acids
- Essential and non-essential amino acids
- Elementary knowledge of structure of proteins
- Introduction to enzymes, active site, co-enzymes, prosthetic groups, apoenzyme and holoenzyme
- Factors affecting enzyme activity: pH, temperature and substrate concentration (K_m and V_{max})

UNIT IV: Vitamins and Minerals

6 Hours

This unit covers structures and biochemical functions of vitamins along with biological role and significance of minerals.

- Definition and classification of vitamins
- Structure and biochemical role of fat soluble vitamins-A and D
- Structure and biochemical role of water soluble vitamins- Thiamine, Riboflavin, Niacin, Pyridoxine and Ascorbic acid.
- Biochemical role of inorganic elements – iron, calcium, phosphorous, iodine, selenium and zinc.

PRACTICAL (Credits 2; Hours 60)

1. Qualitative tests for monosaccharides, disaccharides and polysaccharides.
2. Identification of monosaccharides, disaccharides and polysaccharides in unknown mixtures.
3. Quantitative estimation of glucose, sucrose and lactose by titrimetric method.
4. Qualitative tests for amino acids.
5. Estimation of calcium using EDTA by titration.
6. Estimation of ascorbic acid using 2,6 dichlorophenol indophenol method in the given solution.

Essential Readings:

- Kennelly, P. J., Botham, K. M., McGuinness, O., Rodwell, V. W., Weil, P.A., 2022, *Harper's Illustrated biochemistry* (32nd ed.). McGraw-Hill Education.

- Nelson, D. L., Cox, M. M., 2017, *Lehninger Principles of Biochemistry* (7th ed.). W H Freeman & Co.
- Satyanarayana, U., Chakrapani U., 2021. *Biochemistry* (6th ed.). Elsevier.
- West, E.S., Todd, W.R., Mason, H.S., Bruggen J.T.V., 2017, *Textbook of Biochemistry* (4th ed.). Oxford & IBH.
- Sundararaj, P., Siddhu, A., 2002, *Qualitative tests and Quantitative Procedures in Biochemistry* (2nd ed.). New Delhi: A. H. Wheeler and Co Ltd.

Suggested Readings:

- Voet, D., Voet, J.G., 2012, *Principles of Biochemistry* (4th ed.). Wiley.
- Devlin, T.M. 2010, *Textbook of Biochemistry with Clinical Correlations* (7th ed.). New York, John Wiley-Liss.

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DISCIPLINE SPECIFIC ELECTIVE
DSE HP 5B2: Advanced Human Nutrition

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course(if any) |
|--------------------------|---------|-----------------------------------|----------|---------------------|----------------------|--|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Advanced Human Nutrition | 4 | 2 | 0 | 2 | XII Pass | Pass in Foundation of Food Science and Nutrition |

Learning Objectives

- To understand the role of various nutrients, their requirements under normal and in special conditions with special reference to bioavailability.

Learning Outcomes

After completing this course, a student will be able to:

- Understand the importance of macro and micro-nutrients in a human body.
- Understand methods used for assessing nutrient requirements.
- Comprehend why and how the requirements change under special conditions.

SYLLABUS OF DSE HP 5B2

THEORY
(Credits 2; Hours 30)

UNIT I: Human Nutritional Requirements

20 Hours

- Historical perspective of nutrient requirements, terms used - EAR, RDA, AI, TUL
- Methods of assessment of nutrient needs – a critical review
- Biological role, sensitive methods of assessment, bioavailability, and other factors affecting requirements of nutrients
 - Energy
 - Carbohydrates and dietary fibre
 - Proteins and amino acids
 - Lipids and fatty acids
 - Water

- Fat soluble and water soluble vitamins
- Minerals

UNIT II: Nutrition under special conditions

10 Hours

- Extreme temperatures - Hot and cold
- High altitude
- Space nutrition
- Nutrition in emergencies

PRACTICAL (Credits 2; Hours 60)

1. Methods of assessment of protein quality - Chemical score, NDpCal%
2. Measuring energy expenditure - Minute to minute activity record, GPAQ
3. Understanding fatty acid profile of commonly eaten foods
4. Understanding the dietary fibre (soluble and insoluble) profile of commonly eaten foods
5. Assessment of molar ratios of iron and vitamin C in given diets
6. Estimation of iodine content of salt
7. Estimation of carotenoid content of fruits/vegetables
8. Estimation of antinutritional factors affecting bioavailability -phytic acid / oxalates / tannins
9. Understanding the clinical signs of nutrient deficiency and excess

Essential Readings:

- Chadha R., Mathur P. Eds. (2015) Nutrition: A Lifecycle Approach. New Delhi: Orient Blackswan.
- NIN-ICMR. (2020) Nutrient Requirements -Estimated Average Requirements and Recommended Dietary Allowances.
- WHO/UNHCR/UNICEF/WFP. (2004). Food and Nutrition Needs in Emergency.

Suggested Readings:

- FAO/WHO. (2004) Vitamin and Mineral Requirements in Human Nutrition. Report of a Joint Expert Consultation.
- FAO/WHO/UNU (2004) Human Energy Requirements. Report of a Joint Expert Consultation. Rome.
- FAO/WHO/UNU (2007) Protein and Amino acid Requirements in Human Nutrition. Report of a joint WHO/FAO/UNU expert consultation WHO Technical Report Series 935. Geneva: WHO.

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DISCIPLINE SPECIFIC ELECTIVE
DSE HP 5C1: Information and Communication Technologies for Change

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course(if any) |
|---|---------|-----------------------------------|----------|---------------------|----------------------|---|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Information and Communication Technologies for Change | 4 | 2 | 0 | 2 | XII Pass | Appeared in Fundamentals of Communication |

Learning Objectives

- To appraise the importance of ICTs and their incorporation in the development sector.
- To explain the integration of ICTs in the Development Communication.
- To provide skills for discerning and producing information using ICTs.
- To familiarize learners with the strategies for creating effective ICT materials and assess their impact.
- To enhance awareness about development initiatives at global level and address them using ICTs.

Learning Outcomes

- Assess relationship between ICT and Development.
- Gain knowledge about the effective use of ICTs in Development sector.
- Develop skills to conceptualize and create ICT tools for higher user engagement.
- Critique the role of ICTs for social change and maximize their reach and impact.
- Address the global development concerns by using ICTs effectively.

SYLLABUS OF DSE HP 5C1

THEORY
(Credits 2; Hours 30)

UNIT I: Introduction to ICTs

10 Hours

This unit elucidates upon the concept of ICTs and their growth. It covers Digital Literacy and allied terms. It also delves upon learning theories and their implications for using ICTs

- Understanding ICTs- Definition, concept, meaning
- Evolution and Growth of ICTs-global and local level
- Classification of ICTs- Traditional and modern ICTs, their relevance to development

- Digital Literacy- meaning concept and changing notion
- Introduction to Digital Capital, Digital Divide, Digital Gender Divide
- Learning theories: behaviorism, cognitivism, constructivism, and connectivism and their implications for using ICT
- Limitations and challenges of ICTs
- ICT related development Indices

UNIT II: Types of ICT in Development

8 Hours

This unit focuses on various media such as radio, television, mobile applications and new media as an ICT tool for development. It also includes economic management for ICT projects

- ICT mediated learning: engagement and correlation
- Radio as a tool for ICT
- Television as a tool for ICT
- Mobile as a tool for ICT
- New Media as tools for ICT
- Stakeholders in ICT projects, funding patterns and management

UNIT III: Application of ICTs in addressing Global Development Concerns

12 Hours

This unit provides the students an in-depth view of various initiatives at national and international level, to address the global development challenges and the strategies to combat them

- Role of ICTs in Livelihood development and Poverty Reduction, Governance, Sustainable Education, sustainable agriculture; Environment protection & Climate change, Disaster Risk reduction
- Usage of ICTs in Gender equality and Empowerment, addressing health challenges through E-Health & M-Health initiatives
- Importance of Cyber Security- Scenario of Cyber Crime in India, Types of Cyber Crimes - Identity Theft, Psychological Tricks, Social Media Frauds, Mobile Application Frauds, Online Banking Frauds, Virus Attack on Personal Computers, etc.,
- Cyber Hygiene for Cyber Space & General Tips to keep you safe, National Cyber Crime Reporting Portal and Incident Reporting

PRACTICAL (Credits 2; Hours 60)

1. Conducting a survey on ICTs and social media usage pattern
2. Review of Mobile Apps on Development Issues
3. Analyzing and reviewing various internet-based platforms for social change such as blogging, YouTube etc.
4. Review of websites for e-initiatives of Govt. of India
5. Research and development of a report/presentation related to Cyber security and Hygiene
6. Conceptualization, ideation and creation of ICT materials for a social media campaign

Essential Readings:

- Heeks, R. (2018). *Information and Communication Technology for Development (ICT4D)*. Routledge Publications.

- Kiwelekar, A.W. (2021). *Information Communication Technologies for Sustainable Development: A Concise Textbook for ICT4SD*. Notion Press, Mangaon-Raigad 402104 India.
- Makol, R. & Makol. L. (2021). *Critical Understanding of ICT*. Kala Mandir, New Delhi.
- Mishra, RC. (2010). *Cyber Crime Impact in the New Millenium*, Auther Press.
- Unwin, P. T. H., & Unwin, T. (2017). *Reclaiming information and communication technologies for development*. Oxford University Press.

Suggested Readings:

- GoM. (2020). *Cyber Security Awareness Booklet for Citizens. Volume 1*. Office of Special Inspector General of Police Maharashtra Cyber, Home Department. Government of Maharashtra. Last Accessed Date 20 March 2023.
<https://cybercrime.gov.in/pdf/Cyber%20Security%20Awareness%20Booklet%20for%20Citizens.pdf>
- MoHA. (2021). *Cyber Hygiene for Cyber Space - Dos and Don'ts Basics*. Ministry of Home Affairs. Last Accessed Date 20 March 2023
https://cybercrime.gov.in/pdf/Final_English_Manual_Basic.pdf
- Kihrwadkar A, Pushpanadan, (2006), *Information and Communication Technology in Education*, Sarup and Sons, Delhi. Chapter- 1,2,3
- Reddi, U. R. V. *Primer 1: An Introduction to ICT for Development*. UNAPCICT. Last Accessed Date 20 March 2023
https://www.unapcict.org/sites/default/files/inline-files/Primer%201_An%20Introduction%20to%20ICTD.pdf
- Tongia, R., Subrahmanian, E. & Arunachalam, V. (2005). *Information and Communications Technology for Sustainable Development*. Bangalore: Allied Publishers
- Unwin, T. (Ed.) (2009). *ICT4D: Information and Communication Technology for Development*. Cambridge: Cambridge University Press.
- Weigel, G. & Waldburger, D. (Eds.) (2004). *ICT4D – Connecting People For A Better World. Lessons, Innovations and Perspectives of Information and Communication Technologies in Development*. Berne: Swiss Agency for Development and Cooperation (SDC) and the Global Knowledge Partnership (GKP).

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DISCIPLINE SPECIFIC ELECTIVE
DSE HP 5C2: Digital Marketing and Advertising

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course(if any) |
|-----------------------------------|---------|-----------------------------------|----------|---------------------|----------------------|---|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Digital Marketing and Advertising | 4 | 2 | 0 | 2 | XII Pass | Appeared in Fundamentals of Communication |

Learning Objectives

- To introduce the concept of marketing and digital marketing.
- To develop an understanding of the core elements of Digital Marketing.
- To introduce current practices and tools of Digital Marketing.
- To provide comprehensive understanding of the use of digital media, social media, and mobile applications for marketing applications.
- To familiarize students with the concepts and techniques of advertising.

Learning Outcomes

- Build basic Concepts of Digital marketing and the road map for successful Digital marketing strategies.
- Understand the fundamentals and best practices-audience engagement, content curation, campaign planning and execution, tools and resources, and measuring results for using social media for marketing on current, new and emerging platforms.
- Understand the concepts and skills required for advertising and the importance of effective brand positioning using integrated marketing communications.
- Learn to critically evaluate advertisements and understand the importance of ethical practices in advertising.
- Examine the scope for making advertising and digital marketing a future career

SYLLABUS OF DSE HP 5C2

THEORY
(Credits 2; Hours 30)

UNIT I: Introduction to Digital Marketing

8 Hours

This unit elucidates upon the concept of marketing and digital marketing. It will enable the learners to understand the core elements of Digital and critically appraise the integration of digital marketing into broader design and development strategies.

- Understanding concept of Marketing Process
- Understanding Concept of Digital Marketing Process
- Digital Marketing VS traditional marketing
- Benefits of Digital Marketing and various Digital Platforms
- Digital Marketing Landscape
- Understanding Digital Business Models
- Digital Marketing Strategy Concept of visibility, its type and visitors' engagement
- Introduction to Search Engines for Marketing Applications

UNIT II: Introduction to Advertising

12 Hours

The idea of the unit to explore the concept of advertising world to the students. Beside introducing the concept, the unit will further elaborate the models of advertising along with the classification of the same. The ethics regulating the field of advertising will also be covered.

- Understanding concept, importance and functions of Advertising
- Advertising Theories and Models-AIDA model, DAGMAR Model, Maslow's Hierarchy Model, communication theories applied to advertising
- Types of advertising and new trends
- Economic, cultural, psychological and social aspects of advertising
- Ethical & regulatory aspects of Advertising-Apex Bodies in Advertising-AAAI, ASCI and their codes
- Types of Media for advertising and their characteristics
- Marketing mix, role of advertising in the marketing mix
- Media selection, Planning, Scheduling for effective advertising

UNIT III: Digital Marketing VS Advertising: Tools and Techniques

10 Hours

This unit describes the tools and techniques used in digital marketing and advertising. Concepts of Search Engine Optimization, Search Engine Marketing and Search Media Marketing will be thought. The unit also will bring clarity upon Integrated Marketing Communication and executing Digital Strategy and Digital Marketing Analytics.

- Digital marketing: tools and techniques
- Advertising: tools and techniques
- Performance of Digital Advertising:- Process & players, Display Advertising Media, Digital metrics
- Understanding website planning process
- Search Engine Optimization and Search Engine Marketing
- Social Media marketing, Email marketing, Content marketing, Affiliate marketing
- Elements of Branding and Integrated Marketing Communication
- Crafting and Executing Digital Strategy and Digital marketing analytics

PRACTICAL
(Credits 2; Hours 60)

1. Design an ad copy for a product
2. Developing advertisements for media
3. Planning & Designing advertising campaigns
4. Critical evaluation of Digital Media Marketing campaigns
5. Designing and implementation of Digital Media Campaigns
6. Analysis of websites and development of web pages, blogs and vlogs
7. Creating effective Ad Words campaign & Advertising Positioning with respect to the Digital marketing

Essential Readings:

- Broom, G.M. (2012). *Cutlip and Center's Effective Public Relations*. Pearson Prentice Hall.
- Chunawalla S.A. (2018). *Advertising Theory and Practice*. Himalaya Publishing House.
- Deiss, R., Henneberry, R. (2017). *Digital Marketing for Dummies*. For Dummies.
- Jethwaney, J., Jain, S. (2012). *Advertising Management*. Oxford University Press India.
- Jefkins, F. (1994). *Public Relation Techniques*. A Butterworth-Heinemann Title.
- Kingsnorth, S. (2019). *Digital Marketing Strategy: An Integrated Approach to Online Marketing*, Kogan Page.
- Rowles, D. (2014). *Digital Branding: A complete step-by-step guide to strategy, tactics and measurement*. Kogan Page.

Suggested Readings:

- George, B.E., Michael, B.A., Keyoor, P. (2007) *Advertising & Promotion, an Integrated Marketing Communications Perspective*. McGraw Hill.
- Heath R.L. (2010). *The Sage Handbook of Public Relations*. SAGE Publications, Inc.
- Hinton, S and Larissa, H. (2013). *Understanding Social Media*. Sage Publications India.
- Jefkins, F. (1985). *Advertising Made Simple*. Made Simple.
- Kaul J.M. (1982). *Public Relation in India*. Noya Prakash.
- Lister, M, Dovey, J. (2003). *New Media: A Critical Introduction*. Routledge.
- Ogilvy, D. (1995) *Ogilvy on Advertising*. Prion Books.
- Wilcox D.L., Glen T, Reber, B. (2014). *Public Relations: Strategies and Tactics*. Pearson

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DISCIPLINE SPECIFIC ELECTIVE
DSE HP 5D1: Pattern Making and Construction for Women's Wear

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course(if any) |
|--|---------|-----------------------------------|----------|---------------------|----------------------|-------------------------------------|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Pattern Making and Construction for Women's Wear | 4 | 2 | 0 | 2 | XII Pass | Appeared in Fashion Concepts |

Learning Objectives

- To trace the development of fashion industry.
- To gain an understanding and knowledge of the market involved in women's wear.
- To develop skills in designing, pattern making and construction of advanced styles in garment making techniques for women's wear.

Learning Outcomes

- Comprehend the evolution of fashion industry.
- Describe the design development process involved in women's wear fashion.
- Understand the market involved in women's wear
- Judicious application of knowledge with respect to selection of fashion fabrics, support materials and trims
- Develop popular garment styles for upper and lower garments for women

SYLLABUS OF DSE HP 5D1

THEORY
(Credits 2; Hours 30)

UNIT I: Women's Wear Fashion

6 Hours

This unit enables the students to understand the growth and development of fashion industry with respect to Haute couture and ready to wear apparel for women.

- Development of fashion industry at international level- growth of the Haute Couture, effects of Industrial Revolution, mass production of clothing, women in work force leading to new fashion trends
- International fashion centres
- Designing for women's wear- Fashion seasons, line planning, sources of fashion inspiration, concept board, fabric and colour story, design sketches

UNIT II: Women's Wear Market

6 Hours

This unit provides an insight into the women's wear market with respect to various brands, market categories, sizes, styles and silhouettes. It further imparts knowledge on selection and sourcing of raw materials for women's wear.

- National and International brands for Women Wear
- Women's wear: categories, sizes, styles and silhouettes
- Selection and sourcing of fashion fabrics, support materials and trims

UNIT III: Drafting and Pattern Making

18 Hours

This unit imparts skills in designing and pattern making of various styles in women's wear including upper and lower Indian and western garments and dresses without waistline seams.

- Design variation in bodice through dart manipulation and added fullness
- Design variation in skirts by adding pleats, flares, yokes, panels, circularity
- Drafting of Indian upper and lower garments: Straight & A-line kurta, Salwar/Churidar/Palazzos
- Torso foundation: Boxy, Semi-fitted and Fitted
- Styles of dresses without waistline: Princess-line, Panel dress, Empire-line and Tent silhouette
- Stylizing various components of a garment- sleeves, collars, plackets, pockets, vents & slits, peplum, godets

PRACTICAL (Credits 2; Hours 60)

UNIT I: Designing and Pattern making for Women's Wear

32 Hours

This unit provides hands-on skill to the students for adapting the basic slopers to create style variations in women's wear.

- Designing five women's tops/blouses using the principles of dart manipulation and added fullness and developing patterns for any two selected designs.
- Designing five women's skirts by adding pleats, flares, yokes, panels, circularity and developing patterns for any two selected designs.
- Designing one Kurta and one dress without waistline seam and developing the pattern for the same

UNIT II: Construction of women's garments

28 Hours

This unit equips the student to select appropriate fabric, plan a layout of pattern pieces, cut the fabric and assemble the cut pieces using basic seams and processes to create a finished garment.

- Construction of either a top / blouse or a skirt using the patterns developed in unit 1
- Construction of a Kurta / dress without waistline seam using the pattern developed in unit 1

Essential Readings:

- Brown, P. and Rice, J. (2014) Ready to Wear Apparel Analysis, Fourth Edition. Pearson Education, India
- Armstrong, H.J., 2009, *Pattern Making for Fashion Design*, Harper Collins Publishers Inc., New York.
- Aldrich, W. (2008) Metric Pattern Cutting for Women's Wear, ISBN 10: 1405175672 / ISBN 13: 9781405175678, Wiley Blackwell Publication.
- Frings, G.S. (2007) FASHION From concept to consumer 9th ed., ISBN—10:0131590332/ ISBN-13: 978-0131590335, Pearson education Inc.
- Shoben, M.M., Ward, J.P. (2000) Pattern Cutting and Making Up Volume 2, Revised Edition, LCFS Fashion Media

Suggestive Readings:

- Dunham, G. R., (2021) The Fitting Book: Make Sewing Pattern Alterations and Achieve the Perfect Fit You Desire, Gina Renee Designs, India
- Jennifer Lynne & Matthews-Fairbanks, 2018, *Pattern Design: Fundamentals*, Fairbanks Publishing LLC.
- Reader's Digest (Eds.). 2002, New Complete Guide to Sewing, Reader's Digest Association (Canada) Ltd. Montreal.

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DISCIPLINE SPECIFIC ELECTIVE
DSE HP 5D2: Designing for Children's Wear

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the Course (if any) |
|-------------------------------|---------|-----------------------------------|----------|---------------------|----------------------|--------------------------------------|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Designing for Children's Wear | 4 | 2 | 0 | 2 | XII Pass | Appeared in Fashion Concepts |

Learning Objectives

- To gain an understanding and knowledge of the market involved in children's wear.
- To develop proficiency in design conceptualization of clothes for children.
- To develop skills in designing, pattern making and construction of styles in garment making techniques for children's wear.

Learning Outcomes

- Describe the design development process involved in children's wear fashion.
- Understand the market involved in children's wear.
- Judicious application of knowledge with respect to selection of fashion fabrics, support materials and trims
- Develop popular garment styles of garments for children.

SYLLABUS OF DSE HP 5D2

THEORY
(Credits 2; Hours 30)

UNIT I: Children's Wear Market

6 Hours

This unit enables the students to gain an insight into the children's wear market with respect to market categories, sizes, various brands, fashion seasons and sources of design inspiration.

- Categories of children's wear
- Sizes in children's wear
- National and international brands
- Fashion seasons
- Design inspiration

UNIT II: Design Conceptualization

6 Hours

This unit imparts knowledge on planning a line for children's wear, selection and sourcing of raw materials and designing appropriate clothing for different children age groups.

- Planning a line- concept board, design sketches, colour and fabric story
- Selection and sourcing of suitable fabrics, support materials and trims
- Designing for different age groups (Infants, toddlers, pre-schooler, elementary school going, pre-teens and teens): Boys and girls
- Structural and applied design in children's wear

UNIT III: Pattern development for children's wear

18 Hours

This unit imparts skills in designing and pattern making of various styles in children's wear including upper and lower garments for boys and girls.

- Child's bodice sloper, sleeve sloper, shorts sloper
- Fullness – Addition and disposal of fullness: dart, gathers, pleats and flares
- Adaptation of child's bodice to the following:
 - Skirt top
 - Skirts (Flared, gathered, A-line, pleated)
 - Frocks (A-line, yoked, short bodice, elongated bodice with gathers, pleats and flare)
 - Bushirt
 - Romper/ Pedal Pusher/ Jumpsuit
- Adaptation of child's sleeve:
 - Flared sleeve
 - Cap sleeve
 - Petal sleeve
 - Puffed sleeve and its variations
- Drafting collars:
 - Mandarin Collar
 - One piece stand and fall collar
 - Peter pan collar (flat and raised) and its variations (sailor's, cape, bertha)
- Other garment components- pockets, plackets and fasteners

PRACTICAL (Credits 2; Hours 60)

Learning Objective

It will develop a keen eye for design and development of patterns for styles in children's fashion wear.

Learning Outcomes

- Able to develop basic slopers and adapt these to various design drafts
- Construct any one selected garment
- Design a line for children's wear
- Show case their work as a class/ team effort

UNIT I: Designing and pattern making for children's wear**32 Hours**

This unit provides hands-on skill to the students for adapting the basic slopers to create style variations in children's wear.

- Developing child's slopers- bodice, sleeve and shorts
- Adaptation of bodice block to shirt/bushirt, A-line frock, short bodice, elongated bodice regular bodice, yoke with flare, pleated and gathered frock
- Sleeve adaptations
- Collar drafts

UNIT II: Construction of children's garment and designing a line**28 Hours**

This unit equips the student to select appropriate fabric, plan a layout of pattern pieces, cut the fabric and assemble the cut pieces using basic seams and processes to create a finished garment.

- Construction of a garment from the adaptations above
- Designing a line for children's wear by adding design interest to the above patterns and developing patterns for the same (boys and girls)

Essential Readings:

- [Donnanno A.](#), 2018, *Fashion Patternmaking Techniques for Children's Clothing*, Promopress
- Brown, P. and Rice, J., 2014, *Ready to Wear Apparel Analysis*, Fourth Edition. Pearson Education, India
- Marshall S G, Jackson H O, Stanley MS, Kefgen M & Specht T, 2011, *Individuality in Clothing Selection and Personal Appearance*, 7th edition, Pearson Education, USA
- Armstrong, H.J., 2009, *Pattern Making for Fashion Design*, 5th ed., Harper Collins Publishers Inc., New York
- Frings, G.S., 2007, *FASHION From concept to consumer*, 9th ed., ISBN—10:0131590332/ ISBN-13: 978-0131590335, Pearson education Inc.

Suggestive Readings:

- Jennifer Lynne & Matthews-Fairbanks, 2018, *Pattern Design: Fundamentals*, Fairbanks Publishing LLC
- Reader's Digest (Eds.). 2002, *New Complete Guide to Sewing*, Reader's Digest Association (Canada) Ltd. Montreal

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time

DISCIPLINE SPECIFIC ELECTIVE
DSE HP 5E1: Entrepreneurship and Enterprise Management

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the Course (if any) |
|--|---------|-----------------------------------|----------|---------------------|----------------------|---|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Entrepreneurship and Enterprise Management | 4 | 2 | 0 | 2 | XII Pass | Appeared in Introduction to Resource Management |

Learning Objectives

- To familiarize the students with meaning and concept of entrepreneurship and its ecosystem.
- To sensitize and orient students towards identifying entrepreneurial opportunities and market potential.
- To impart knowledge for setting up an enterprise and its management

Learning Outcomes

Students will be able to :

- Understand the concepts of an entrepreneur, entrepreneurship and entrepreneurial ecosystem in context of India.
- Appreciate the role of entrepreneurial motivation and creativity in innovation.
- Develop skills in project identification, formulation and appraisal.
- Gain insight into setting up of an enterprise and its management.

SYLLABUS OF DSE HP 5E1

THEORY
(Credits 2; Hours 30)

UNIT I: Entrepreneurship Development: Fundamental concepts of entrepreneurship development and entrepreneurial ecosystem. **10 Hours**

- Entrepreneurship- concept, significance, stages, growth process, entrepreneurship development in India, entrepreneurship education model, drivers & barriers
- Entrepreneur- characteristics, competencies, types, style & motivation

- Women Entrepreneurship in India- characteristics, competencies, significance, status, factors promoting , challenges faced, strategies for women entrepreneurship development- income generation , self-help groups, micro enterprises and self- employment, skill development and technology transfer
- Entrepreneurial Ecosystem: Domains (accessible markets, availability of finance, conducive culture, human capital, progressive policy framework, and a range of institutional support)
- Creativity: Concept, significance & process
- Innovation: Concept, types, process, sustaining growth- disruptive innovation.

UNIT II: Enterprise Planning and Launching: Project identification, project formulation, project appraisal **10 Hours**

- Types of enterprises: classification based on sector, capital, gender, place, product, ownership pattern, platform & process
- Project Identification: sensing business opportunities, feasibility study
- Project Formulation: Project report & its components, writing a business proposal
- Project Appraisal: Technical, marketing, financial, legal and environmental

UNIT III: Enterprise Management & Sustenance (with reference to start ups and micro enterprises) **10 Hours**

- Production Management - Organizing production; input-output cycle - ensuring quality
- Marketing Management- Understanding markets and marketing: types, functions & marketing mix
- Financial Management - Concept, types and sources of finance, financial ratios & projections
- Human resource management – Concept, significance, practices, challenges
- Total Quality Management
- Business ethics

PRACTICAL
(Credits 2; Hours 60)

1. Micro Lab
2. SWOC analysis of successful entrepreneurs and enterprises through case profiling.
3. Entrepreneurial Competencies & Motivation - Simulations & experiential learning. Institutions facilitating entrepreneurship development in India.
4. Preparation and appraisal of a business plan.
5. Calculations of financial Indices.
6. Design and development of marketing mix for a startup.
7. Designing of sales campaign for digital marketing

Essential Readings:

- Barringer R. B. (2020). *Entrepreneurship: Successfully Launching New Ventures*. Pearson Education.
- Chhabra T. N. (2015). *Entrepreneurship Development*. Sun India.

- Charantimath, P. M. (2018). *Entrepreneurship Development and Small Business Enterprises*. Pearson Publications.
- Desai V. (2011). *The Dynamics of Entrepreneurial Development and Management*. Himalaya Publishing House.

Suggested Readings:

- Gundry L, K. & Kickul J. R. (2007). *Entrepreneurship Strategy: Changing Patterns in New Venture Creation, Growth, and Reinvention*. SAGE Publications, Inc.
- Taneja & Gupta. (2001). *Entrepreneur Development- New Venture Creation*. Galgotia Publishing Company.
- Zaware, N. (2019). *Entrepreneurship Development and Startups Management*. Educreation Publishing.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time

DISCIPLINE SPECIFIC ELECTIVE
DSE HP 5E2: Innovation and Design Thinking

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the Course (if any) |
|--------------------------------|---------|-----------------------------------|----------|---------------------|----------------------|---|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Innovation and Design Thinking | 4 | 2 | 0 | 2 | XII Pass | Appeared in Introduction to Resource Management |

Learning Objectives

- To comprehend the Design Thinking concept for fostering innovation
- To understand concept and role of innovation in present day context
- To apply design thinking solutions individually and in team for maximizing business growth
- To instill a culture of design thinking to enhance innovation within an organization

Learning Outcomes

- Students will be able to :
- Overcome cognitive fixedness and develop new mindset that integrates design thinking for innovation.
- Empathize and apply human centred design for seeking innovative solutions.
- Create the optimal environment and team dynamics to steer innovation and collaboration.
- Develop the capacity to design and test cutting-edge for customer-focused prototypes

SYLLABUS OF DSE HP 5E1

THEORY
(Credits 2; Hours 30)

UNIT I: Innovation

10 Hours

This unit will help students to understand the concept of innovation and types and its dimensions

- Innovation: Concept, significance, types and process
- Innovation diffusion theory
- Innovation in organizations : Drivers and barriers, bottom up and top down approach, horizontal versus vertical approach

- Dimensions of innovation: Innovation eco-system in India, social Innovation, grassroots innovation, frugal innovation and global Innovation-global innovation index framework (GII)

UNIT II: Design thinking approaches and processes

12 Hours

The focus of this unit would be on developing the basic concepts of design thinking, business use of design thinking, mindset, approaches and processes.

- Design thinking : Concept, discipline, role and mindset
- Design Thinking Approaches: Empathy, Ethnography, Divergent thinking, convergent thinking, Visual thinking, Assumption testing, Prototyping and Time for learning and validation
- Design thinking resources: people, place, materials and organizational fit
- Design thinking processes: Double diamond process, Stanford d. school 5 stage process

UNIT III: Design thinking in practice

8 Hours

This unit will help students to gain insights about design thinking tools, methods and its application.

- Stages of designing for growth
- Design thinking tools and methods: visualization, journey mapping, value chain analysis, mind mapping, brain storming, concept development, assumption testing, customer co creation, rapid prototyping, launching
- Design thinking applications in organizations

PRACTICAL (Credits 2; Hours 60)

1. The foundation for innovation: Define users' needs and problems, identify and reframe the most game changing part of the problem and analyze the contextual environment for viable solution.
2. Ideate: Develop user focus ideas to identify new problems, and apply tools for innovative solutions, ideation through design thinking approaches and refine innovative ideas.
3. Develop an experimentation mindset: Combine ideas into complex innovation concepts, critique and strengthen concepts, guide prototyping by creating critical questions related to concept's desirability, feasibility and viability.
4. Implement : Assess developer and user perspectives for bias that may affect implementation, apply framework to strengthen communications about an innovation's value and reflect on management skills for sustaining a culture of innovation

Essential Readings:

- Brown, T. (2009). *Change by design*. Harper Business.
- Drucker, P. F. (2006). *Innovation and entrepreneurship: Practice and principles*. USA: Elsevier.70
- Kahneman, D. (2011). *Thinking fast and slow*. Farrar, Straus and Giroux.
- Roy, R. (2008). *Entrepreneurship*. Oxford University Press.
- Soni, P. (2020). *Design your thinking: The Mindsets, toolsets and skillsets for creative*

problem solving. Penguin Random House India Private Limited.

Suggested Readings:

- Chesbrough, H. (2006). *Open business model: How to thrive in the new innovation landscape*. Harvard Business School Press.
- CN Prasad,(2004) *Small and Medium Enterprises in Global Perspective*. New century Publications.
- Fagerberg, J., Mowery, D. C., & Nelson, R. R. (Ed.). (2006). *The Oxford Handbook of innovation*. Oxford University Press.
- Kaplan, J. M. (.2006). *Patterns of entrepreneurship*. John Wiley & Sons.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time

दिल्ली विश्वविद्यालय
UNIVERSITY OF DELHI

Bachelor of Science in Home Science

or

**Bachelor of Science (Prog.) Home Science with Dissertation/
Academic Projects/ Entrepreneurship**

*Under UGCF-2022 based on NEP-2020
(Effective from Academic Year 2022-23)*



Syllabus as approved by Academic Council

Date:

No:

Executive Council

Date:

No:

Department of Home Science
Semester – VI

B.Sc. (Prog.) Home Science

| Paper No | Paper title | Credits | |
|-----------------|--|----------------|------------------|
| | | Theory | Practical |
| DSC HP 616 | Lifespan Development III: Development in Adulthood | 3 | 1 |
| DSC HP 617 | Public Nutrition and Dietetics | 3 | 1 |
| DSC HP 618 | Sociology and Psychology for Home Science | 2 | 2 |
| DSE HS 6-1 | Research Methods in Home Science | 3 | 1 |
| DSE HS 6-2 | Innovation and Entrepreneurship | 1 | 3 |

UG Programme for Bachelor in B.Sc. Home Science (Prog.) degree in three years

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DISCIPLINE SPECIFIC CORE COURSE

DSC HP 616: Lifespan Development III: Development in Adulthood

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course (if any) |
|--|---------|-----------------------------------|----------|---------------------|----------------------|---|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Lifespan Development III: Development in Adulthood | 4 | 3 | 0 | 1 | XII Pass | Appeared in Lifespan Development II: Middle Childhood and Adolescence |

Course description:

Life span development, will equip aspiring students with theoretical perspectives and the principles of development as well as the challenges during different stages of adulthood.

Learning Objectives

- To learn about the various changes that take place in the different domains of development during early, middle and late adulthood.
- To understand the theoretical perspectives on early, middle and late adulthood.
- To understand the influence of cultural contexts on development during adulthood.
- To learn about different techniques, tools of data collection and psychometric measurement.

Learning Outcomes

The students would be able to:

- The students will develop an understanding of the diverse changes that are experienced in different developmental domains during adulthood.
- Students will be able to apply theoretical perspectives in understanding adulthood.
- Students will be able to apply their understanding of development during adulthood to everyday life experiences.
- To understand how relationships evolve and are maintained through the lifespan.

SYLLABUS OF DSC HP 616

THEORY

(Credits 3; Hours 45)

UNIT I: Early Adulthood

20 Hours

Unit description: This unit will explain the stage of early adulthood and the various changes across different domains of development.

Subtopics:

- Transition from adolescence to adulthood; Developmental tasks of adulthood
- Theoretical Perspectives of early adulthood- Life cycle approach, Erikson, Sternberg and others.
- Physical and physiological changes
- Socio-emotional development: Relationships, Marriage, co-habitation and Parenting
- Cognition and creativity: Work, Vocation and leisure

UNIT II: Middle Adulthood

10 Hours

Unit description: This unit will explain the stage of middle adulthood and focus on the physical, physiological and socio-emotional changes specific to this stage

Subtopics:

- Developmental tasks of middle adulthood
- Physical and physiological changes
- Socio-emotional development
- Diversity in roles and relationships
- Parenting in the current context

UNIT III: Late Adulthood

15 hours

Unit description: This unit will explain the stage of late adulthood and the challenges across the different domains of development.

Subtopics:

- Developmental tasks of late adulthood
- Physical and physiological changes and aging
- Socio-emotional development: Parenting and Grandparenting; Coping with the challenges of aging
- Work and Retirement
- Cultural Perspectives on aging, death and grief
- Meditation, spirituality and stress management

PRACTICAL (Credit 1; Hours 30)

UNIT 1

15 Hours

- Reviewing methods of data collection: Interview, Observation, Questionnaire, Case study
- To study physical and sexual changes in adulthood
- To study cognitive development and creativity during adulthood
- Case profile of an adult- including study of self, family relationships and peer relationships, challenges.
- Use of interview/questionnaire method to study adult roles (at least one male and female)
 - Father/husband
 - Home maker
 - Employed woman
 - Grandfather/Grandmother
 - Single parent
 - College-going young adults

UNIT 2

15 Hours

- Depictions of adolescence and adulthood stages in media: Audio-visual, Print and Theatre
- Familiarity with Psychological Tests of Intelligence and Personality- any three (WAIS-R, Ravens, TAT)
- Analysis of care-based apps for elderly

Essential Readings:

- Berk, L. E. (2007). Development through the Lifespan. Delhi, Pearson Education
- Papalia, D.E. and Martorell, G. (2015). Experience Human Development, McGraw-Hill Education
- Rice, F. P. (1998). Human Development: A lifespan approach. New Jersey: Prentice Hall.
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata McGraw- Hill.
- Santrock,J.W (2021). Life Span Development:Eighteenth edition. MC.Graw-Hill:New York.
- Singh, A. (Ed). (2015). Foundations of Human Development: A Life Span Approach. New Delhi: Orient Black Swan

Suggested Readings:

- Harris, M. and Butterworth, G. (2002). Developmental Psychology: A Student's Handbook. Psychology Press.
- Hurlock, E. B. (1973). Adolescent Development. Mc Graw -Hill Education.
- Journal of Developmental Psychology
- Lefrancois, G.R. (1996). The Lifespan. Wadsworth Publishing Company.
- Rutter, M. and Rutter, M. (1992). Developing Minds. Challenge and continuity across the Life span. London: Penguin.
- Tennant, M. and Pogson, P. (1995) Learning and Change in the Adult Year, San Francisco: Jossey-Bass

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DISCIPLINE SPECIFIC CORE COURSE
DSC HP 617: Public Nutrition and Dietetics

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course (if any) |
|---------------------------------------|----------|-----------------------------------|----------|---------------------|----------------------|---|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Public Nutrition and Dietetics | 4 | 3 | 0 | 1 | XII Pass | Appeared in Lifespan Approach to Nutrition |

Learning Objectives

- To elucidate the concept and scope of public nutrition.
- To apprise the relevance of assessing nutritional status and the various techniques for assessment of nutritional status.
- To familiarize with the common nutritional deficiencies of public health significance and their management and prevention.
- To understand the nutrition care process in disease management of a patient.
- To develop the skill of modifying normal diets into therapeutic diets for managing some diseases/ disorders.
- To understand the etiology, patho-physiology, metabolic changes, clinical symptoms and management of some common disorders / diseases.

Learning Outcomes

- Understand the concept of public nutrition and the multifaceted nature of nutritional problems.
- Comprehend the relevance of assessing nutritional status and various techniques for assessment of nutritional status.
- Knowledge of common nutritional deficiencies, their management, prevention and relevant national nutrition programmes.
- Understand the principle of diet therapy and the nutrition care process.
- Develop an ability to modify a normal diet for therapeutic purposes.
- An understanding of the etiology, patho-physiology, metabolic changes, clinical symptoms and management of some common disorders / diseases.

SYLLABUS OF DSC HP 617

THEORY
(Credits 3; Hours 45)

UNIT I: Concept and scope of public nutrition

3 Hours

- Health –Concept, definition, dimensions, determinants and indicators
- Definition and multidisciplinary nature of public nutrition
- Concept, scope and current concerns in public nutrition
- Role of public health nutritionist

UNIT II: Assessment of nutritional status of individual and community 8 Hours

- Objectives and importance of assessment of nutritional status of individual and population groups
- Methods of Assessment of Nutritional status of Individual and Population groups
 - Anthropometry and related measures
 - Biochemical Assessment
 - Clinical Examination
 - Dietary Assessment
 - Vital Statistics , Ecological factors

UNIT III: Prevalence, etiology, clinical features, prevention and management at community level of the following. 10 Hours

- Protein Energy Malnutrition, Moderate Acute Malnutrition, Severe Acute Malnutrition
- Micronutrient deficiencies such as Vitamin A deficiency, Nutritional anemia, Iodine deficiency disorders, Vitamin D deficiency and Zinc deficiency
- Fluorosis
- Obesity, Metabolic Syndrome and Non communicable disease- An overview

UNIT IV: Introduction to Nutrition Care and Diet Therapy 4 Hours

- Principles and basic concepts of diet therapy
- Nutrition Care Process (NCP)
- Therapeutic modifications of the normal diet

UNIT V: Etiology, patho-physiology, metabolic changes, clinical symptoms and management of some common disorders / diseases 20 Hours

- Febrile disorders- Typhoid, Tuberculosis, HIV-AIDS
- GI Tract disorders- Diarrhoea, Constipation, Lactose Intolerance, Celiac Disease
- Weight management- Underweight, Overweight and Obesity

**PRACTICAL
(Credit 1; Hours 30)**

I Assessment of nutritional status:

- Anthropometry (height, weight , Middle upper arm circumference, Waist circumference)
- Dietary Assessment - Food frequency questionnaire ,24 hour dietary recall
- Review of nutritional status of population from National /Regional/ Nutrition Surveys (NFHS, CNNS, etc)

II Planning and preparation of low cost nutritious diet/recipes for:

- Population groups vulnerable to nutritional deficiency diseases (Protein Energy Malnutrition,, Nutritional Anemia, Vitamin A deficiency)

III Planning and preparation of diets/dishes and snacks for:

- Individuals suffering from febrile disorders- Typhoid, Tuberculosis; GI Tract disorders- Diarrhea and Constipation; Weight management- Underweight, Overweight/ obesity

Essential Readings:

- Vir, S. (2023). Child, adolescent and women nutrition in India: Public Policies, programme and progress. KW Publishers, Daryaganj, New Delhi, India.

- Park, K. (2021). Park's Textbook of Preventive and Social Medicine (26th ed.). Jabalpur, India: Banarasisdas Bhanot Publishers.
- Seth, V. and Singh K. (eds.) (2021) Principles of Medical Nutrition Therapy for Positive Clinical Outcomes, 1st Edition. Elite Publishing House Pvt. Ltd.
- ICMR (2020) Estimated Average Requirements and Recommended Dietary Allowances for Indians .Published by National Institute of Nutrition, Hyderabad.
- Seth V, Singh K and Mathur P (2018). Diet Planning through the Life Cycle: Part 1 Normal Nutrition. A Practical Manual. 6th Edn. Elite Publishing House Pvt. Ltd. New Delhi.
- Siddhu A, Bhatia N, Singh K, Gupta S (2017). Compilation of food exchange list, technical series 6, Lady Irwin College, University of Delhi. Publ. Global Books Organisation, Delhi
- Longvah T, Ananthan R, Bhaskarachary K and Venkaiah K (2017). Indian Food Composition Tables. National Institute of Nutrition, ICMR, Hyderabad.
- Kishore, J. (2016). National Health Programs of India (12th ed.). New Delhi, India: Century Publications.
- Wadhwa A and Sharma S (2003). Nutrition in the Community- A Textbook. Elite Publishing Pvt Ltd, New Delhi.
- Jelliffe DB & Jelliffe E F P (1989). Community nutritional assessment with special reference to less technically developed countries. Oxford Medical Publications. Oxford University Press, Oxford, UK.
- Policy on Control of Nutritional Anemia (1991). Ministry of family and health welfare. Government of India.

Suggested Readings:

- Chadha R and Mathur P eds.(2015) Nutrition : A Lifecycle Approach. Orient Blackswan, New Delhi.
- Indian Dietetics Association, (2018) Clinical Dietetics Manual, 2nd Edition. Elite Publishing House Pvt. Ltd.
- Bamji, M. S., Krishnaswamy, K. & Brahman, G. N. V. (Eds.). (2017). Textbook of Human Nutrition (4th ed.). New Delhi, India: Oxford and IBH Publishing Co. Pvt. Ltd.
- Gibney, M. J., Margetts, B. M., Kearney, J. M. & Arab, L. (Eds.). (2005). Public Health Nutrition. Oxford, UK: Blackwell Science.
- ICMR (2011) Dietary Guidelines for Indians. Published by National Institute of Nutrition, Hyderabad.
- Khanna K, Gupta S, Seth R, Passi SJ, Seth R, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. 2nd Edn. Phoenix Publishing House Pvt. Ltd.
- <https://www.who.int/tools/child-growth-standards/standards>. Assessed on March 2023
- National Nutrition Monitoring Bureau (India) | GHDx (healthdata.org) Assessed on March 2023
- WHO. Xerophthalmia and night blindness for the assessment of clinical vitamin A deficiency in individuals and populations. WHO/NMH/NHD/EPG/14.4. Geneva: World Health Organization; 2014 (http://apps.who.int/iris/bitstream/10665/133705/1/WHO_NMH_NHD_EPG_14.4_eng.pdf). Assessed on March 2023
- <https://www.who.int/data/nutrition/nlis/info/vitamin-a-deficiency> Assessed on March 2023
- https://www.nhm.gov.in/images/pdf/programmes/child-health/IEC-materials/PARTICIPANT-MANUAL_FBCSA-Malnutrition.pdf Assessed on March 2023
- Comprehensive National Nutrition Survey(2016-18) reports <https://www.unicef.org/india/media/2646/file/CNNS-report.pdf> Assessed on March 2023

- WHO <https://www.who.int/tools/child-growth-standards/standards>. Assessed on March 2023
- WHO (2009) <https://www.who.int/publications/i/item/9789241547635>. Assessed on March 2023
- NRHM. Facility based care of SAM (2013) https://www.nhm.gov.in/images/pdf/programmes/child-health/IEC-materials/PARTICIPANT-MANUAL_FBCSA-Malnutrition.pdf .Assessed on March 2023
- NFHS Project | International Institute for Population Sciences (IIPS) (iipsindia.ac.in)Assessed on March 2023

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time

DISCIPLINE SPECIFIC CORE COURSE
DSC HP 618: Sociology and Psychology for Home Science

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the course (if any) |
|---|---------|-----------------------------------|----------|---------------------|----------------------|--------------------------------------|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Sociology and Psychology for Home Science | 4 | 2 | 0 | 2 | XII Pass | NIL |

Learning Objectives

- To develop an understanding of the contributions of Sociology and Psychology to Home Science.
- To gain knowledge about various dimensions of social change, society and culture.
- To develop an understanding of the nature and foundations of Psychology.
- To appreciate the relevance of the Sociology and Psychology in everyday life.

Learning Outcomes

Students will be able to:

- Understand the nature of self, family, community and society.
- Gain awareness of the variations in family and social systems.
- Develop an understanding of Psychology and its basic concepts.
- Apply concepts of Sociology and Psychology in everyday life.

SYLLABUS OF DSC HP 618

THEORY
(Credits 2; Hours 30)

PART A – Sociology (15 Hours)

UNIT I: Introduction to Sociology

7 Hours

This unit will introduce the students to basic concepts of social systems.

- Definitions and theoretical approaches in Sociology
- Social systems: Family, Community and Society
- Family in India: Structures, functions, variations and transition

UNIT II: Communities and Social Groups

8 Hours

This unit introduces the students to the concepts of communities, social groups and social inclusion and exclusion.

- Types of communities: rural, urban, tribal, and other variations

- Organization and role of social groups in communities and society
- Social Inclusion and Exclusion

PART B – Psychology (15 Hours)

UNIT III: Introduction to Psychology

8 Hours

This unit will help students to gain an insight into the basic concepts of Psychology.

- Key terms, definitions and concepts in Psychology
- Schools of thought in Psychology
- Theories of learning and perception

UNIT IV: Psychology in everyday life

7 Hours

This unit will help students to appreciate the application of Psychology in everyday life.

- Self, emotions, perception and behaviour
- Group dynamics
- Media and Psychology

PRACTICAL (Credit 2; Hours 60)

PART A – Sociology

30 Hours

1. To study the structures and roles of families in diverse settings (social, cultural, economic and geographical variations)
2. To study local communities to understand social systems and dynamics (residential, slum, street, migrant).
3. Documenting everyday rituals, cultural practices and events: traditional art and craft, folk songs, attire, food
4. Audio visual resources to study changing social systems

PART B – Psychology

30 Hours

1. To prepare a scrapbook on relevant contemporary topics and issues in Psychology
2. Audio visual material to understand how human behaviour influences group dynamics and relationships
3. Survey on use and impact of popular social media
4. Workshops on any relevant theme: self, emotional regulation, mindfulness, counselling.

Essential Readings:

- Abraham, F. (2006). *Contemporary Sociology: An Introduction to concepts and Theories*. Oxford University Press.
- Anand, V., Balakrishnan, G., & George, P. (2018). *Community practices in India: Lessons from the grassroots*. Cambridge Scholars Publishing.
- Baron, R. A., Byrne, D., & Branscombe, N. R. (2006). *Social psychology* (11th ed.). Pearson Education.
- Beteille, Andre. (2009). *Sociology: Essays in Approach and Method*. Delhi: Oxford University Press.
- Ciccarelli, Saundra K., White, J. Noland & Misra, Girishwar. (2022). *Psychology* (6th ed.). Pearson India.
- Maguire, K. (2012). *Stress and coping in Families*. Wiley.

- Sachdeva, P., & Florence. D. (2020). *Basic Sociology*. Elite Publishing House.
- Shah, M. A. (2014). *The Writings of A. M. Shah: The Household and Family in India*. Orient Blackswan.

Suggested Readings:

- Compas, B. E., Murphy, L. K., Yarboi, J., Gruhn, M. A., & Watson, K. H. (2019). Stress and coping in families. In B. H. Fiese, M. Celano, K. Deater-Deckard, E. N. Jouriles, & M. A. Whisman (Eds.), *APA handbook of contemporary family psychology: Foundations, methods, and contemporary issues across the lifespan* (pp. 37–55). American Psychological Association. <https://doi.org/10.1037/0000099-003>.
- Hochschild, A. (2013). *So how's the Family? And other Essays*. University of California Press.
- Madan, T. N. & Das, Veena. (2003). *The Oxford India companion to sociology and social anthropology*. Oxford University Press
- Passer, M.W. & Smith, R.E. (2010). *Psychology: The science of mind and behaviour*. Tata McGraw-Hill.

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DISCIPLINE SPECIFIC ELECTIVE
DSE HS 6-1: Research Methods in Home Science

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the Course (if any) |
|----------------------------------|---------|-----------------------------------|----------|---------------------|----------------------|--------------------------------------|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Research Methods in Home Science | 4 | 3 | 0 | 1 | XII Pass | NIL |

Learning Objectives

- To provide students understandings about the basic concepts, approaches and methods in conducting Home Science research.
- To enable learners to appreciate and critique the nuances of designing a research study well.
- To sensitize students towards ethical concerns while conducting Home Science research.

Learning Outcomes

- Demonstrate knowledge of the scientific method, purpose and approaches to research in Home Science
- Compare and contrast quantitative and qualitative research approaches
- Explain different types of research design and their applicability in Home Science research
- Understand the key elements of a research process
- Explain ethical principles, issues and procedures

SYLLABUS DSE HS 6-1

THEORY
(Credits 3; Hours 45)

UNIT I: Research Purpose and Design

10 Hours

This unit will deal with meaning and importance of research in various areas of Home Science. Exposure to different types of research designs and measurement in Home Science research would also be given.

- Meaning, purpose and significance of research
- Research as a scientific method

- Types of research
- Quantitative, Qualitative and mixed method approaches
- Research Designs –Experimental and Non-Experimental; Descriptive and Observational; Participatory research
- Internal and external validity of research design
- Variables, concepts and measurement in research
- Levels of measurement
- Units of analysis

UNIT II: Sampling and Research tools & techniques **15 Hours**

This unit will introduce the student to the concept of sampling and methods used to draw sample from population using examples from Home Science discipline. Students would also learn about types of data, its collection and reliability and validity concerns.

- Role of sampling in research
- Sampling techniques and their applicability, Sample size and sampling error
- Types of data: Primary and Secondary
- Tools of data collection; types, construction and administration- Interview, Questionnaire, Observation, Focus group discussion and other methods
- Validity and reliability of data collection tools

UNIT III: The Research Process **15 Hours**

This unit will elaborate upon the various steps involved in conducting and reporting researches in Home Science.

- Defining the problem, research questions, objectives, hypotheses
- Review of related literature and originality in writing
- Systematic research: concept and methodology
- Planning the research
- Identifying variables and constructing hypothesis
- Selecting appropriate research methodology and tools
- Data analysis: coding and tabulation
- Writing a research report: styles and formats
- Citation formats: in medical sciences, social sciences

UNIT IV: Values, Social Responsibility and Ethics in Research **5 Hours**

This unit will apprise the students about ethical concerns while conducting and reporting research.

- Ethical principles guiding research: from inception to completion and publication of research
- Plagiarism and Academic integrity in research: plagiarism tools and software
- Ethical issues relating to research participants and the researcher
 - Rights, dignity, privacy and safety of participants
 - Informed consent, confidentiality, anonymity of respondents, voluntary participation, harm avoidance

PRACTICAL
(Credits 1; 30 Hours)

1. Data visualization
2. Levels of Measurement
3. Types of research designs
 - a. Experimental and non-experimental; Descriptive and observational
 - b. Qualitative, Quantitative and mixed method
4. Sampling techniques and sample size calculation
 - a. Probability sampling method
 - b. Non-Probability sampling methods
5. Tools of data collection- Interview schedule, questionnaire and FGD
 - Designing/ Construction
 - Preparation of tools for ethical review
 - Pilot testing/ validity and reliability of the tool\
6. Data collection and analysis process: conducting interviews, administering questionnaire
7. Coding and tabulation of data for analysis
8. Citation formats and Plagiarism
9. Reviewing a research paper from a specific area of specialization in Home Science

Essential Readings:

- Kerlinger F. N. and Lee, H.B. (2017). *Foundations of Behavioral Research* 4th Ed. Harcourt College Publishers.
- Kothari, C. R. (2019). *Research Methodology: Methods and Techniques*. New Age International Pvt Ltd, New Delhi.
- Kothari, C. R. (2022). *Shodh Padhati* 1st Ed. New Age International Pvt Ltd, New Delhi.
- Kumar, R. (2019) *Research Methodology: A Step-by-Step Guide for Beginners*. 5th Ed. Sage Publications, New Delhi.

Suggested Readings:

- Bernard, H. R. (2000). *Social research methods: Qualitative and quantitative approaches*. Thousand Oaks, CA.: Sage.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.
- Davis, A. M., Treadwell, D. (2019). *Introducing Communication Research: Paths of Inquiry*. United Kingdom: SAGE Publications.
- Flynn, J.Z., Foster, I.M. (2009). *Research Methods for the Fashion industry*. Fairchild books, Bloomsbury publishing.
- Indian National Science Academy (INSA) (2019). *Ethics in Science Education, Research and Governance*. ISBN:978-81-939482-1-7.
<http://www.insaindia.res.in/pdf/EthicsBook.pdf>
- Jacobsen, K. H. (2020). *Introduction to health research methods: A practical guide*. Jones & Bartlett Publishers.
- UGC (2021) *Academic Integrity and Research Quality*. New Delhi: UGC, Retrieved from https://www.ugc.ac.in/e-book/Academic%20and%20Research%20Book_WEB.pdf

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time

DISCIPLINE SPECIFIC ELECTIVE
DSE HS 6-2: Innovation and Entrepreneurship

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

| Course title & Code | Credits | Credit distribution of the course | | | Eligibility criteria | Pre-requisite of the Course (if any) |
|---------------------------------|---------|-----------------------------------|----------|---------------------|----------------------|--------------------------------------|
| | | Lecture | Tutorial | Practical/ Practice | | |
| Innovation and Entrepreneurship | 4 | 1 | 0 | 3 | XII Pass | NIL |

Learning Objectives

- To motivate students to opt for innovation and entrepreneurship as a career option.
- To foster entrepreneurial traits and competencies
- To make students understand the critical role of creativity, design thinking and innovation in entrepreneurship development
- To prepare students to plan, launch and manage start-ups/enterprise
- To establish an ecosystem for students that is conducive to networking and incubating

Learning outcomes

After completing the course, students will be able to:

- Consider opting innovation and entrepreneurship as a career.
- Develop entrepreneurial traits and competencies.
- Ideate a viable business proposition.
- Network for venturing and innovating.
- Pitch a business proposal.

SYLLABUS OF DSE 6-2

THEORY
(Credit 1: Hours: 15)

UNIT I: Innovation

5 Hours

- This unit focuses on developing the fundamental concept of innovation and its dimensions.
- Innovation: Concept, significance, types and process
- Innovation diffusion theory
- Innovation in organizations: Drivers and barriers, bottom-up and top-down approach, horizontal versus vertical approach
- Dimensions of innovation: Innovation eco-system in India, social Innovation, grassroots innovation, frugal innovation, and global Innovation-global innovation index framework (GII)

UNIT II: Creativity & Design thinking

4 Hours

- The focus of this unit will be on developing the basic concepts and role of creativity & design thinking in innovation.
- Creativity- Concept, significance, role, processes and fostering creativity for innovation
- Design thinking: Concept, discipline, role, mindset, resources, and processes
- Design Thinking Approaches: Empathy, Ethnography, Divergent thinking, convergent thinking, Visual thinking, Assumption testing, Prototyping and Time for learning and validation

UNIT III: Entrepreneurship and Enterprise Management

6 hours

This unit will orient the students to the concept of entrepreneurship and enterprise management.

- Entrepreneurship - Concept, stages, growth process, and entrepreneurship development in India, Government policies and schemes
- Entrepreneur- characteristics, competencies, types, styles, and motivation
- Enterprise & its management- types and strategies for Start-up launching, management and sustenance
- Exit strategies for a new startup- trends in India
- Networking & business ethics

PRACTICAL **(Credit 3: Hours: 90)**

1. Entrepreneurial Motivation: Developing an appreciation for entrepreneurial traits and entrepreneurship as a career through

14 Hours

- Entrepreneurial motivation orientation – Sector-specific case studies of successful entrepreneurs and profiling of required traits for innovation
- Understanding self as a prospective entrepreneur - Who am I?, Locus of control, Competency Profiling, SWOC analysis, Mapping entrepreneurial styles

2. Understanding and appreciating Innovations and design thinking:

20 Hours

- Identification of innovations in day-to-day life
- Critical evaluation of innovations and design-driven solutions – case studies
- Environment scanning for business opportunities
- User's empathy mapping – understanding user's pain, pain creators and relievers

- Redesign activities for possible solutions - products and services
- Industry-integrated learning – live projects

3. Market research & mapping start-up station: 12 Hours

- Environment scanning for business opportunities
- Ideation: Generation, articulation, testing and incubating
- Develop a feasibility report

4. Business plan and appraisal: 10 Hours

- Business preparation
- Appraisal of business plan
- Risk auditing and mitigation

5. Operations and Marketing management: 12 Hours

- Develop operational management sheet and applications for registrations and licenses
- Familiarizing with the relevant documents, including the inventory and stock registers.
- Customer segmentation and profiling
- Prepare the 4Ps of the marketing mix, including digital marketing tools
- Prepare an elevator pitch

6. Financial management: 12 Hours

- Analysis of financial requirements and available capital
- Sources of finance - bootstrapping, crowdfunding, angel investing venture capital
- Financial statements, cash flow management, applicable interest rates of different types of loans
- Calculation of financial ratios, break-even analysis and applicable taxes
- Designing funding strategy and start-up valuation

7. Human resource management and legal framework: 10 Hours

- Functional requirements and cost implications
- Team formation
- Ensuring health and safety at the workplace
- Business communication
- Enterprise registration- Legal compliances, paperwork and cost
- Intellectual property rights

Essential Readings:

- Bhatt Arvind Kumar (2022). Innovation and Entrepreneurship. Atlantic publisher
- Chabbra T. N. (2019). Entrepreneurship Development. New Delhi: Sun India.
- Charantimath, P. M. (2018). Entrepreneurship Development and Small Business Enterprises. Pearson Publications.
- Carayanis Elias G, Samara Elpida T & Bakouros Yannis L.(2015). Innovation and Entrepreneurship. Springer.
- Drucker. Peter F. (2006), Innovation and Entrepreneurship. Harper Business

- Gundry L, K. & Kickul J. R. (2007). Entrepreneurship Strategy: Changing Patterns in New Venture Creation, Growth, and Reinvention. SAGE Publications, Inc.
- Santiago, Sam (2011), The official book of Innovation. Rising above LLC publisher
- Soni, Pwan.(2020). Design your thinking: The Mindsets, toolsets and skillsets for creative problem solving

Suggested Readings:

- Christensen M Clayton (2013). The innovator's dilemma. Harvard Business Review Press.
- Daum Callie (2020). Business strategy: essentials you always want. Vibrant publishers
- Goyal P. (2017). Before you start up: How to prepare to make your start-up a dream reality. Fingerprint publishing.
- HBR's 10 Must Reads on Startups and Entrepreneurship (2018). Featuring Bonus Article "Why the Lean Startup Changes Everything" by Steve Blank
- Nath,D. Mitra, S. (2020) Funding your startup and other nightmare. Penguin portfolio.
- Taneja & Gupta. (2001). Entrepreneur Development- New Venture Creation. New Delhi: Galgotia Publishing Company.

Web references:

- <https://web.iima.ac.in/assets/upload/mdp/480284395YEP%20Brochure.pdf>
- <https://www.iimb.ac.in/entrepreneurship>
- <https://www.mepsc.in/skill-based-programs/>
- <https://ediindia.ac.in/pgdm-innovation-entrepreneurship-venture-development/>

Training material:

- EMT kit developed by NIESBUD, New Delhi and EDII Ahmedabad

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