Department of Home Science B.Sc. (Honours) Home Science Semester -VII

Paper No	Paper Title	Page No.
DSC HH 719	Statistics and Computer Application in Home Science Research	2-5
DSE HH 7A1	Theories of Human Development	6-8
DSE HH 7A2	Assessment, Evaluation and Approaches to Research in Human Development	9-11
DSE HH 7A3	Child Rights and Social Action	12-14
DSE HH 7A4	Education for Human Development	15-17
DSE HH 7B1	Dietetics and Public health Nutrition II	18-21
DSE HH 7B2	Institutional Food Management	22-24
DSE HH 7B3	Nutrition for Fitness and Sports	25-28
DSE HH 7B4	Advanced Human Nutrition	28-30
DSE HH 7C1	Social and Behaviour Change Communication	31-33
DSE HH 7C2	Advertising & Digital Marketing	34-36
DSE HH 7C3	NGO Management, CSR and Fundraising	37-39
DSE HH 7C4	Information & Communication Technologies for Development	40-43
DSE HH 7D1	Historic Costumes	44-46
DSE HH 7D2	Dyeing, Printing and Finishing	47-49
DSE HH 7D3	Fashion Marketing and Merchandising	50-53
DSE HH 7D4	Garment Manufacturing	54-56
DSE HH 7E1	Human Factors and Ergonomics	57-59
DSE HH 7E2	Advanced Interior Design	60-62
DSE HH 7E3	Resources and Sustainable Development	63-65
DSE HH 7E4	Project Management	66-67

DISCIPLINE SPECIFIC CORE COURSE

DSC HH 719: STATISTICS AND COMPUTER APPLICATIONS IN HOME SCIENCE RESEARCH

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distribu Cours	tion of the e	Eligibility Criteria	Pre- requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		
Statistics and Computer Applications in Home Science Research DSC HH 719	4	3	0	1	Studied Semester VI	Nil

Learning Objectives

- Introduce students to basic statistical concepts and methods.
- Develop skills to organize, analyze and interpret data.
- Provide the foundation for applying statistical methods in real-world scenarios.
- Equip students with tools for making inferences from data using probability and hypothesis testing.

Learning Outcomes

- Understand and apply basic statistical concepts.
- Organize and summarize data using descriptive statistics.
- Understand probability theory and apply it to various problems.
- Conduct hypothesis testing and interpret the results.

SYLLABUS OF DSC HH 719

THEORY (Credits 3; Hours 45)

UNIT I: Introduction to Statistics and Types of Data

7 Hours

In this unit, the students will be able to classify data into appropriate types and levels of measurement. They will understand the distinction between descriptive and inferential statistics

- Definition of Statistics
- Types of statistics: Descriptive vs Inferential
- Types of data: Qualitative (Nominal, Ordinal) vs Quantitative (Discrete, Continuous)

- Levels of measurement: Nominal, Ordinal, Interval, Ratio
- Reliability and Validity- Meaning and Significance

UNIT II: Data Organization and Summarization

6 Hours

In this unit, the students will learn how to collect data effectively. They will be able to construct and interpret various data representations.

- Organizing data: Frequency distributions, Tables and Graphs
- Types of graphs: Histograms, Pie charts, Bar graphs, Line graphs, Frequency polygons
- Percentile and Percentile Ranks

UNIT III: Measures of Central Tendency and Dispersion

8 Hours

In this unit students will understand the concept of central tendency and dispersion for different datasets

- Mean, Median, Mode: Properties, Application, appropriateness for data sets
- Range, Interquartile Range, Variance, Standard deviation
- Coefficient of variation
- Interpretation of variability in data

UNIT IV: Probability Theory and Basics of Hypothesis Testing

8 Hours

In this unit the students will understand the fundamentals of probability and the structure of hypothesis testing. They will be able to state hypotheses and interpret the results of hypothesis tests.

- Introduction to Probability
- Addition and multiplication rules of probability
- Null and Alternative Hypothesis
- Type I and Type II Errors
- One-tailed vs Two-tailed tests
- Significance level (α) and confidence intervals

UNIT V: Hypothesis Testing using Statistical Tests

16 Hours

In this unit students will perform hypothesis tests for population means and proportions using appropriate tests.

- Concept of parametric and non-parametric tests
- Z-test for single means
- One-sample and two-sample t-tests for means
- One-way ANOVA
- Correlation and Regression
- Chi-square test
- Non-Parametric tests- Spearman's correlation and Sign test
- Application of statistical procedures in Home Science
 - o Tests and procedures suitable for research in the areas of home science

• Introduction to use of computers for statistical analysis - Excel, SPSS, Atlas Ti

PRACTICAL (Credit 1; Hours 30)

1. Introduction to Statistical Software

2 Hours

- To familiarize students with tools like Excel for statistical analysis.
- Activity: Input basic data and perform basic excel functions on it.

2. Construction of Frequency Distributions

4 Hours

- Organisation of raw data into frequency tables.
- Activity: Use a given dataset to create grouped and ungrouped frequency tables.

3. Diagrammatic Representation of Data

6 Hours

- To visualize data using bar charts, pie charts, line graphs, histograms and frequency polygons.
- Activity: Plot diagrams for a dataset and interpret the results.

4. Measures of Central Tendency

4 Hours

- Calculation of mean, median, and mode for grouped and ungrouped data using Excel.
- Activity: Compare central tendencies of two datasets.

5. Measures of Dispersion

4 Hours

- Computation of range, variance, and standard deviation using Excel.
- Activity: Analyze the spread of two different datasets.

6. Area under the curve

2 Hours

• Calculation of the area under the curve using standard scores.

7. Correlation Analysis

2 Hours

- Measurement of the strength of relationships between two variables.
- Activity: Calculate Pearson's and Spearman's correlation coefficients.

8. Hypothesis Testing (One-sample and two sample t-test)

2 Hours

- To perform a one-sample and two sample t-test and test the significance.
- Activity: Test a hypothesis about the mean of a single dataset, independent and dependent groups.

9. Chi-Square Test for Independence

2 Hours

- To test the independence between categorical variables.
- Activity: Analyze a contingency table and interpret the test result.

10. Interpretation and Presentation of results

2 Hours

• Compilation of results from statistical analysis into a report/file including visualizations and interpretations.

Essential Readings

- Minium, E. W., King, B. M., (2003). Statistical Reasoning for Psychology and Education. 4th Edition, John Wiley and Sons, New York
- Rastogi Veer Bala, (2009). Fundamentals of Biostatistics, 2nd Edition. Ane Books Pvt. Ltd. New Delhi
- Gupta, S.P. (2021) Statistical Methods, 46th Edition. Sultan Chand and Sons. New Delhi.
- Agresti, A., Christine Franklin, C. and Klingenberg, B. (2017). Statistics: The Art and Science of Learning from Data, Pearson, Boston

Suggested Readings

- Schmuller, J. (2016). Statistical Analysis with Excel for Dummies, 5th Edition, New York, USA.
- Gupta, S. C. and Kapoor, V. K. (2020). Fundamentals of Mathematical Statistics, 12th Edition., Sultan Chand and Sons. New Delhi.
- Ross, Sheldon M. (2010). Introductory Statistics, 3rd Edition, Academic Press.
- Derek Rowntree, (2018). Statistics Without Tears- An Introduction for Non-Mathematicians, Penguin, UK.

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

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HH7A1: THEORIES OF HUMAN DEVELOPMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit course	distributio	on of the	Eligibility criteria	Pre- requisite of the course (if any)
Code		Lecture	Tutorial	Practical		
Theories Of Human Development DSE HH7A1	4	2	0	2	Studied Semester VI	Nil

Learning Objectives

- Understand the major theories of human development and their historical contexts.
- Critically analyse and compare developmental theories.
- Apply theoretical frameworks to practical situations.
- Explore the role of culture, environment, and genetics in shaping human development.

Learning Outcomes

The students will be able to:

- Identify and explain the major theories of human development.
- Analyse developmental stages from different theoretical perspectives.
- Apply developmental theories to practical situations.
- Use theoretical approaches to understand complex developmental phenomena

SYLLABUS OF DSC HH 7A1

THEORY (Credits 2; Periods 30)

Unit I: Foundations and Applications of Theories in Human Development 10 Hours

This unit describes introductory perspectives on human development.

- Theory in Human Development- What is a theory? Theoretical frameworks and their purpose in explaining human growth and adaptation
- Overview and Major Perspectives of Human Development- biological, social, cognitive, and emotional, Critiques and limitations of traditional theories
- Cross-cultural perspectives on developmental theories

Unit II: Frameworks of Development and Theoretical Foundations 14 Hours

6

- This unit delineates classical and contemporary theoretical perspectives.
- Classical Theories of Human Development- Psychoanalytic Theories, Learning Theories, Cognitive Development Theory
- Contemporary Developmental Theories- Humanistic and Ecological Theories, Sociocultural theories and theories of Attachment
- Lifespan Developmental Theories- Theories of continuity and change, Protection Motivation theories/framework, Resilience Theories

Unit III: Real-World Applications of Developmental Theories

8 Hours

This unit maps out applications of human development theories.

- Emerging developmental theories in relation to equity and diversity issues; Research and innovation trends in HD
- Applying theories in parenting, education, counselling, and social policy
- Cross-cultural critiques and adaptations of human development theories

PRACTICAL (Credit 2; Periods: 60)

- 1. Reflect and write a Self-Narrative on your own developmental experiences by exploring how biological, social, cognitive, emotional, and cultural factors have shaped your development and growth
- 2. Observe a child in various settings (home, school, community) and analyze how different environments (microsystem, mesosystem, exosystem, macrosystem, chronosystem) influence their development, focusing on cognitive, emotional, and social growth.
- 3. Using a secondary source (Book Review/ Film Review) analyze a character's behaviour through Freudian concepts like the id, ego, and superego, examining how unconscious desires, repressed memories, and unresolved childhood conflicts influence their actions and decisions.
- 4. Conduct in-depth interviews with college students (ages 18-22) using identity formation theories (such as Erikson's psychosocial development or Marcia's identity statuses) to explore sense of self, navigating role confusion, and experiencing identity achievement, moratorium, foreclosure, or diffusion etc.
- 5. Prepare a developmental task list based on Piaget's cognitive tasks to observe and document childhood development behaviours
- 6. Choose 3 newspaper articles that discuss human behavior (e.g., crime, education, health) and identify examples of reinforcement, modelling and imitation
- 7. Create hypothetical moral dilemma situations to understand moral development and decision-making
- 8. Observing infant-caregiver interactions and identifying attachment styles
- 9. Create a timeline of your or someone else's life, marking major events and periods of adversity. Identify how resilience was demonstrated through coping strategies or external support, and explain these adaptations using lifespan resilience theories.
- 10. Project- Plan and prepare a presentation on applying Classical/ Contemporary/ and Lifespan Developmental Theories to Real-World Scenarios across diverse environments and cultural settings

Essential Readings

- Crain, W. (2024). *Theories of development: Concepts and applications*. Routledge: New York.
- Lerner, R. M. (2018). Concepts and Theories of Human Development.
- Lightfoot, C., Cole, M., & Cole, S. R. (2018). The Development of Children.
- Miller, P. H. (2002). *Theories of developmental psychology*. Macmillan.
- Newman, B. M., & Newman, P. R. (2022). *Theories of human development*. Routledge.

Suggested Readings

- Erikson, E. (1959). Theory of identity development. E. Erikson, Identity and the life cycle. Nueva York: International Universities Press. Obtenido de http://childdevpsychology. yolasite. com/resources/theory% 20of% 20ident ity% 20erikson. pdf.
- Marikyan, D., & Papagiannidis, S. (2023). Protection motivation theory: A review. *TheoryHub Book: This handbook is based on the online theory resource: TheoryHub*, 78-93.
- Sobel, D. (1999). Galileo's Daughter: A Historic Memoir of Science, Faith and Love. New York: Walker & Co.
- Spivak, G. C. (2004). Death of a Discipline. Calcutta: Seagull.

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DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HH 7A2: ASSESSMENT AND EVALUATION IN HUMAN DEVELOPMENT

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
		Lecture	Tutorial	Practical		(if any)
Assessment And Evaluation In Human Development DSE HH7A2	4	2	0	2	Studied Semester VI	Nil

Learning Objectives

- To understand the meaning and purpose of various assessment methods in the context of Human Development and Childhood Studies
- To study concept of developmental assessment and develop an awareness of the critical role of assessment and evaluation
- To acquire a range of skills necessary for effectively working with children and adults across different settings

Learning Outcomes

The students will be able to:

- Develop skill to use techniques and methods suited for different person situations and contexts
- Be familiar with standardised tests/protocols for the study including assessment of
- individuals, families/settings
- Develop skills in recording fieldwork

SYLLABUS OF DSC HH 7A2

THEORY (Credits 2; Periods 30)

Unit I: Methods for Studying Children and Their Contexts

12 Hours

- Observational study of children and their life settings using ethnographic methods
- Interviewing of children and relevant adults
- Focus group discussions
- Participatory Learning and Action (PLA) Techniques

• Theatre based techniques and activities

Unit II: Understanding Developmental Norms and Assessment

8 Hours

- Concept of Developmental Assessment
- Understanding Principles of Screening, Assessment and Evaluation
- Study tests, assessment protocols and developmental norms
- Tests of cognition, language, Social Development, Aptitude, and Projective techniques

Unit III: Evaluation design and methods

10 Hours

- Principles of Evaluation and learning in a pre-school (for one subject / thematic area).
- Evaluating Foundational Literacy and Numeracy
- Principles of Design a programme evaluation for a small project / programme.
- Career Guidance

PRACTICAL (Credit 2; Periods:60)

- 1. Conduct an observational study of children in various settings and observations using the narrative method/ ethnographic account
- 2. Study tests, assessment protocols and developmental norms (any three)-Ages & Stages Questionnaire, DASII, DAT, WISC, WPPSI, PORTAGE, DSS, Ravens Progressive Matrices, Seguin form board any other
- 3. Social emotional assessment Self concept inventory, Vineland Social Maturity Scale, DAS scale, CAT, TAT, HOME inventory, any other
- 4. Develop and execute a theatre-based activity (e.g., role-plays, improvisations) aimed at exploring children's thoughts, emotions, and behavioral patterns
- 5. Short placements within organizations and industry interactions with functionaries at different organizations
- 6. Conduct a thematic evaluation of principles of learning and assessment in a preschool setting, focusing on areas such as foundational literacy and numeracy or classroom practices.
- 7. Learn to use ECQAS scale for evaluating ECE programmes developed by Ambedkar University
- 8. Undertake a detailed evaluation of a National-level initiative such as ICDS, Pratham, or Mobile Creches. Review the programme's goals, implementation strategies, and outcomes, and provide recommendations for improvement based on secondary data or reports

Essential Readings

- Anandalakshmy,S., Chaudhary, N. & Sharma,N. (Eds.). (2008). Researching Families and Children: Culturally Appropriate Methods. New Delhi: Sage
- Beaty, J. J. (2013). *Observing development of the young child* (8th ed.). Pearson.

- Epstein, A. S. (2014). The intentional teacher: Choosing the best strategies for young children's learning (Revised ed.). National Association for the Education of Young Children (NAEYC).
- Fivush, R., & Haden, C.A. (2003) (Eds.). Autobiographical Memory and the Construction of the Narrative Self. Mahwah, N.J.: Lawrence Erlbaum.
- Wortham, S. C., & Hardin, B. (2015). Assessment in early childhood education (6th ed.). Pearson

Suggested Readings

- Adharshila and Navchetna: https://www.nipccd.nic.in/publications-Early#gsc.tab=0
- ASER reports https://asercentre.org/
- Ethnographic Practice in Classrooms. Qualitative Research, 5.
- Gordon, T., Holland, J. Lahelma, E. and Tolonen, T. (2005). Gazing with Intent:
- Hart, C. (1998). Doing a Literature Review: Releasing the Social Science Research Imagination. London: Sage.
- Mishler E. (1991) Research Interviewing: Context and Narrative. Harvard University Press, Cambridge, MA.
- Paul Kline (2000) The Hand book of Psychological testing, 2nd edition, Routledge Taylor and Francis Group

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DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HH 7A3: CHILD RIGHTS AND SOCIAL ACTION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit di	stribution	of the course	Eligibility criteria	Pre-requisite of the	
		Lecture	Tutorial	Practical/ Practice	Course (if any)		
Child Rights And Social Action DSE HH7A3	4	2	0	2	Studied Semester VI	Nil	

Learning Objectives

- To understand the meaning of child rights and rights-based approach to providing services and programmes for children
- To sketch a demographic profile of the child in India and to identify groups
- To acquire knowledge of constitutional and legal provisions in India for care and protection of the children

Learning Outcomes

- Students will understand rights-based approach for providing protection and care to the child.
- Students will know about the vulnerable groups of children in India.
- Students will learn about constitutional and legal provisions provided by the state for the child in India.

SYLLABUS OF DSE HH 7A3

THEORY (Credits 2; Hours 30)

UNIT I: Introduction to Child Rights

8 Hours

- Definitions of child and child rights
- Key philosophical concepts in the discourse on child rights
- Situational analysis of child in India
- Understanding Child Rights from Indian perspective

UNIT II: Vulnerable Groups: Causes and Consequences

- 12 Hours
- Street and working, destitute, abandoned, institutionalized children
- Victims of child-trafficking and child abuse
- Children in conflict with law
- Children with chronic illness, migrants, minorities, in conflict zones and affected by disaster.
- Factors of exclusion- socio-economic, geo-political etc.

UNIT III: Framework for Social Action and Child Protection

10 Hours

- Constitutional provisions in India and National Policy for Children (2013)
- Global declaration-UNCRC
- Concept of Child Protection
- Mechanism for child protection-Laws for children (CLPRA, POCSO, HAMA, GAWA, JJ acts), NCPCR
- Services for children-institutional and non-institutional
- Role of family, community, state & child herself in protecting rights

PRACTICAL (Credit 2; Hours: 60)

- 1. Visits to institutions working for vulnerable children.
- 2. Exploring and analysis of child rights issues through audio-visual sources and workshops.
- 3. Preparing awareness generation media on Child Rights and Protection
- 4. Interaction with children in difficult circumstances.
- 5. Case profile of a child in difficult circumstances.
- 6. Surveys and awareness generation activities.
- 7. Programme planning.

Essential Readings

- Bajpai, A. (2006). Child Rights in India: Law, policy and practice. New Delhi: Oxford University Press.
- Chopra, G. (2015). Child Rights in India: Challenges and Social Action. New Delhi: Springer
- Chopra, G. (2021). Child Protection in India: From Silos to System. S. Puri, 2021 (ed.) *Children in India: Opportunities and challenges*. Nova Science Publishers, Inc.
- Ministry of Women and Child Development, (2013). *National Policy for Children*, 2013. Gazette of India, Part 1, Section 1. Govt of India.

Suggested Readings

- Bhargava, V. (2005). Adoption in India: Policies and experiences. New Delhi: Sage.
- Indian Journal of Social Work
- Virani, P. (2000). Bitter chocolate: Child Sexual abuse in India. New Delhi: Penguin
- Weiner, M., Burra, N., Bajpai, A. (2007). Born unfree: Child labour, Education, and the state in India. New Delhi: Oxford University Press.

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

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HH 7A4: EDUCATION FOR HUMAN DEVELOPMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit		ition of the	Eligibility criteria	Pre-requisite of the Course (if
		Lect ure	Tutorial	Practical/ Practice		any)
Education For Human Development DSE HH 7A4	4	2	0	2	Studies Semester VI	Nil

Learning Objective

- To develop a holistic understanding of the educational ecosystem.
- To become aware of the critical issues that need to be addressed for quality education for all.
- To learn about implementation strategies in the context of ground realities.

Learning Outcomes

Students will be able to-

- Explain effective teaching and learning in the classroom with reference to various practices, processes and materials.
- Understand critical issues in development and implementation of curriculum, textbooks and teaching materials.
- Review historical and contemporary issues related to quality in schooling, teacher development and system effectiveness with reference to human development.
- Identify major concerns in Indian education and compare with global perspectives

SYLLABUS OF DSE HH 7A4

THEORY (Credits 2; Hours 30)

UNIT I: Effective Classroom and Learning 9 Hours

- Child-oriented pedagogy, active learning, and the significance of relationships
- Enabling learning through the use of teaching-learning material
- Management of learning through planning, classroom organization, and assessment
- Effect of technology on learning

UNIT II: Human Development, Curriculum and Materials

9 Hours

- Curriculum basics and underpinnings
- Human Development as source as well as objective of curriculum
- From curriculum to practice: The role of textbooks, materials and other means
- Diversity, equity and curriculum
- Critical issues affecting curriculum development and effectiveness

UNIT III: Effective School and Education System

12 Hours

- Historical perspective on Indian education system
- Policies, plans and programmes
- School as an organization and characteristics of a child-friendly school
- Teacher development
- Status of today's schools and system effectiveness
- Case studies of innovative schools and programmes
- Global perspectives

PRACTICAL (Credit 2; Hours: 60)

- 1. Observe and evaluate the planning, organization, and assessment methods in a real or virtual class.
- 2. Create a lesson plan that combines traditional methods and digital tools.
- 3. Analyze a curriculum that focuses on holistic human development. Write a report on how human development is integrated as a source and objective.
- 4. Design a curriculum module for a specific age group that addresses key aspects of human development, such as social-emotional learning, critical thinking, or physical well-being.
- 5. Reflect on how human development theories (e.g., Piaget, Vygotsky) influence curriculum design and objectives.
- 6. Create supplementary materials (e.g., worksheets, visual aids) to enhance textbook-based learning.
- 7. Identify and document community resources that can enrich the curriculum and promote equity.
- 8. Design a model for a child-friendly school, considering infrastructure, pedagogy, and student needs.
- 9. Visit schools in your area and evaluate their effectiveness based on infrastructure, teacher-student ratio, resources, and outcomes.
- 10. Select an innovative school or educational program (e.g., Rishi Valley School, Barefoot College, Teach for India) and document its practices and outcomes.

Essential Readings

- Anand, K., & Lall, M. (2022). *Delhi's Education Revolution: Teachers, agency and inclusion* (p. 211). UCL Press.
- Bhattacharjee, N., & GS, S. B. (2025). Teaching, Learning and Thinking in Contemporary Times: A Conversation with Avijit Pathak. In *Cultures of Learning* (pp. 27-52). Routledge India.
- Mukhopadhyay, R., & Sarangapani, P. M. (2018). Introduction: education in India between the state and market—concepts framing the new discourse: quality, efficiency, accountability. In *School education in India* (pp. 1-27). Routledge India.
- Nambissan, G. B. (2020). Low-cost education for the poor in India: Contemporary concerns. *JMC Review*, 4, 109-128.
- Thapan, M. (2023). The State, Education and Inequality in Contemporary India: An Intersectional Exploration. *Sociological Bulletin*, 72(4), 375-392.

Suggested Readings

- Jha, M, M. School without walls. (2002). India: Oxford
- Kumar, K.(2004). What is worth teaching (3rd ed.). New Delhi: Orient Longman
- Kumar, R. (2006) (Ed.). (2006). The crisis of elementary education in India. New Delhi: Sage.
- Ramachandran, V. (Ed.). (2003). Getting children back to school: Case studies in primary education. New Delhi: Sage.
- Kuroyanagi, T. (1996). *Totto-chan: The little girl at the window*. Kodansha International.
- Sarangapani, P. M. (2020). A cultural view of teachers, pedagogy, and teacher education. *Handbook of education systems in South Asia*, 1-24.

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

DISCIPLINE SPECIFIC ELECTIVE COURSE

DSE HH 7B1: DIETETICS AND PUBLIC HEALTH NUTRITION II

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title &	Credits	Credit d	listributio	n of the course	Eligibility criteria	Pre-requisite
Code		Lecture	Tutorial	Practical/ Practice		of the Course (if any)
Dietetics and Public Health Nutrition II DSE HH 7B1	4	2	0	2	Studied Semester VI	Studied Dietetics and Public Health Nutrition I DSC HH 514

Learning Objectives

- To familiarize with the concept of food and nutrition security among the population in India.
- To apprise the concept of nutrition and health education and behaviour change.
- To develop an understanding about the principles of dietary counselling and use of computers in the management of patients in hospital settings.
- To understand the pathophysiology, metabolic changes, clinical symptoms, treatment and management of some disease conditions.

Learning Outcomes

- Gain knowledge about the concept of food and nutrition security.
- Apprise the concept of nutrition communication for health promotion at community level.
- In depth understanding of the principles of dietary counselling and use of computers in management of patients in hospital settings.
- Become able to modify the diet as per the pathophysiology, metabolic changes and clinical symptoms of some disease conditions.

SYLLABUS OF DSE HH 7B1

THEORY

(Credits 2; Hours 30)

Unit I: Food and Nutrition Security

8 Hours

This unit deals with concept of food and nutrition security, and sustainable food systems. It also includes the important initiatives undertaken for ensuring food and nutrition security among the population in India.

- Concepts and definitions of food and nutrition security and sustainable food systems
- Initiatives for ensuring food and nutrition security National Food Security Mission, Public Distribution System/Targeted Public Distribution System, Antyodaya Anna Yojana

UNIT II: Nutrition communication for health promotion

4 Hours

In this unit, the students will understand the principles and scope of nutrition and health education and also concept of behaviour change communication and its process.

- Objectives, principles and scope of nutrition and health education.
- Behaviour Change Communication: concept and process.

UNIT III: Diet counselling and nutritional support

4 hours

In this unit, the students will understand the concept of diet counselling and its importance in nutrition care process. They will be introduced to different methods of feeding during disease conditions.

- Importance of dietary counselling and use of computers in nutrition care process
- Introduction to methods of feeding to give nutritional support

UNIT IV: Etiology, pathophysiology, metabolic changes, dietary management of conditions 14 Hours

In this unit, the students will understand the pathophysiology, metabolic & clinical aberrations, diagnosis, complications, treatment, medical nutrition therapy (MNT), and recent advances in different diseases/disorders.

- Dyslipidemia, Atherosclerosis, Hypertension
- Gastrointestinal disorders- GERD, Peptic ulcer, IBS
- Liver disease-Infective hepatitis
- PCOD
- Overview of Thyroid disorders

PRACTICAL

(Credits 2; Hours 60)

- I. Assessment of Diet Quality using an appropriate indicator/methods:
 - The Healthy Eating Index (HEI)
 - The Minimum Acceptable Diet (MAD)
 - The Minimum Dietary Diversity for Women (MDD-W)etc.

II. Formulation of messages for creating nutritional awareness among vulnerable sections of the society

III. Orientation to diet counselling apps

- Critique of various diet counselling apps
- Hospital visit for observing a diet counselling session
- Planning a diet counselling session for CVD/GI Tract disorder

IV. Planning and preparation of diets/dishes for individuals suffering from

- Dyslipidemia/ Atherosclerosis/ Hypertension
- GI Tract disorders- GERD, peptic ulcer
- Liver-Infective hepatitis
- PCOD

Essential Readings:

- Boyl, M.A. (2016). Community Nutrition in Action: An entrepreneurial Approach. 7th Edition. Brooks Cole.
- Raymond, J.L. and Morrow, K. (2020) Krause and Mahan's Food & the Nutrition Care Process. 15th ed. Saunders-Elsevier
- Seth, V. and Singh, K. (eds.) (2021) Principles of Medical Nutrition Therapy for Positive Clinical Outcomes, 1st Edition. Elite Publishing House Pvt. Ltd.
- Snetselaar, L. (2009). Nutrition Counselling Skills for the Nutrition Care Process. Fourth Ed. Sudbury, Massachusetts: Jones Bartlett Publishers.
- Vir, S.C. (Ed.). (2011). Public Health Nutrition in Developing Countries. Part 1 and 2. Woodhead Publishing India.
- Vir, S. (2021). Public Health Nutrition in Developing Countries (Vol 1 & 2). New Delhi, India: Woodhead Publishing India.
- Wadhwa, A and Sharma, S (2003). Nutrition in the Community- A Textbook. Elite Publishing House Pvt. Ltd. New Delhi.

Suggested Readings:

- Gibney, M.J., Elia, M., Ljungqvist & Dowsett J. (2005) Clinical Nutrition. The Nutrition Society Textbook Series. Blackwell Publishing Company
- Guyton, A.C. and Hall, J.E. (2000) Textbook of Medical Physiology. 10th ed. India: Harcourt Asia.
- Joshi, Y. K. (2008) Basics of Clinical Nutrition 2nd ed. Jaypee Brothers Medical Publishers
- National Family Health Survey 5 [NFHS-5], (2021). Ministry of Health and Family Welfare, Government of India.
- Park, K. (2021). Park's Textbook of Preventive and Social Medicine (26th ed.). Jabalpur, India: Banarasidas Bhanot Publishers.
- Shils, M.E., Shike, M, Ross, A.C., Caballero B and Cousins RJ (2005) Modern Nutrition in Health and Disease. 10thed. Lipincott, William and Wilkins
- Vir, S. (2023). Child, adolescent and women nutrition in India: Public Policies, programme and progress. KW Publishers, Daryagani, New Delhi,

India.

• Williams, S.R. (2001) Basic Nutrition and Diet Therapy. 11th ed. Times Mirror Mosby College Publishing

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

DISCIPLINE SPECIFIC ELECTIVES COURSE

DSE HH 7B2: INSTITUTIONAL FOOD 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
		Lecture	Tutorial	Practical		Course (if any)
Institutional Food Management DSE HH 7B2	4	2	0	2	Studied Sem VI	Studied Food Science and Nutrition DSC HH 102

Learning Objectives

- To understand the basic concepts of Institutional Food Management
- To develop skills in menu planning and quantity food production for various food service organizations within specific budgets.

Learning Outcomes

- Acquire fundamental knowledge of menu planning and resource management in a food service establishment.
- Develop understanding of recipe standardization and quantity food production.
- Develop insight for maintaining hygiene and food safety at institutional kitchens.

SYLLABUS OF DSE HH 7B2

THEORY

(Credits 2; Hours 30)

UNIT I: Introduction to Food Management

4 Hours

In this unit, the students will be able to understand the basics of management and food service for a food establishment.

- Principles of Management
- Functions of Management
- Types of food service systems

UNIT II: Food Production Process

12 Hours

In this unit, the students will learn the components of food production cycle to run a food service unit.

- Menu Planning: Importance of menu, Factors affecting menu planning, Types of menu
- Food purchase and receiving
- Storage
- Quantity food production: Standardization of recipes, Recipe adjustment and portion control, Techniques of quantity food production
- Food service
- Food safety in the food production process

UNIT III: Institutional Resource Management

11 Hours

In this unit, students will understand the fundamentals of space, personnel and financial management.

- Layout planning and Equipment: Types of kitchen areas, Flow of work, Factors affecting selection of equipment
- Personnel Management: Functions of a personnel manager, Components of staffing system: Recruitment, Selection, Orientation, Appraisal, Absenteeism, Motivation theories and application
- Financial Management: Importance, Budgets and budgeting process, Cost concepts

UNIT IV: Setting up a Food service unit

3 Hours

In this unit, the students will understand how to establish a food service unit.

- Identifying resources, Developing project plan, Determining investments
- Regulations to set up a food service business

PRACTICAL (Credit 2; Hours 60)

1. Introduction to Food Management

4 Hours

• Market survey for food items available in retail, wholesale and online markets

2. Quantity Food Production

32 Hours

- Standardization of 2 healthy recipes suitable for canteens
- Scaling up to larger amounts
- Setting up a food stall

3. Planning Cyclic Menus

20 Hours

• Planning cyclic menus for nursery school

- Planning cyclic menus for college canteens/ hostel
- Planning nutritious freshly cooked lunch for MNC employees

4. Promoting Good Hygiene and Sanitation Practices

4 Hours

• Developing tools to promote good hygiene practices at food service units

Essential Readings

- Desai, V. (2011) The Dynamics of Entrepreneurial Development and Management, Himalya Publishing House Pvt. Ltd., Mumbai. Chapter 45-48, pg 612-685
- Payne- Palacio, J. and Theis, M. (2011) Food service Management: Principles and Practices. 12th ed. Pearson Education., Chapter 11, pg 308-334
- Sethi, M. (2005) Institutional Food Management, New Age International Publishers, chapter 6, pg 153-165
- West, B. and Wood, L. (1988) Food Service in Institutions 6th Edition, Chapter 9,Pg 311-367.

Suggested Readings

- Knight, J. B. and Kotschevar, L.H. (2000) Quantity Food Production Planning & Management 3rd edition, John Wiley & Sons.
- Kotas, R. and Jayawardardene, C. (1994) Profitable Food and Beverage Management, Hodder & Stoughton Publications.
- Roday, S. (2003) Food Hygiene and Sanitation, Tata McGraw Hill Publication Ltd.
- Taneja, S. and Gupta, S.L. (2001) Entrepreneurship Development. Galgotia Publishing
- Dessler, G. (2007) Human Resource Management 11th edition Prentice Hall New Jersey
- Basic Food Safety Training Manual Catering (http://www.fssai.gov.in/home/capacity building/e-library/training-manual.html)
- Street Food Vendor Training on Food Safety and Hygiene (http://www.fssai.gov.in/home/capacity building/e-library/training-manual.html)

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

DISCIPLINE SPECIFIC ELECTIVE

DSE HH 7B3: NUTRITION FOR FITNESS AND SPORTS

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title &	Credits	Credit distri	bution of t	the course	Eligibility criteria	Pre-requisite of the
Code		Lecture	Tutorial	Practical/ Practice		course(if any)
Nutrition For Fitness and Sports	4	2	0	2	Studied Semester VI	Studied Nutritional Biochemistry I DSE HH 5B1

Learning Objectives

- To develop the concepts of fitness, components, assessment methods and approaches for improving fitness.
- To gain knowledge of Sports Nutrition and other important aspects for recreational and competitive athletes.
- To facilitate understanding and application of the energy systems, macro- and micro-nutrients, supplements and fluid recommendations for improving sports performance.
- To develop analytical skills of athletes' nutritional needs with respect to phases of training and competition.
- To gain knowledge with respect to nutritional care of special groups of athletes.

Learning Outcomes

- Understand concepts of fitness, its assessment and different approaches to improve fitness with special focus on skill related fitness.
- Exhibit knowledge of the metabolism and energy systems of exercise.
- Effectively plan and implement sport-specific diets for athletes through all age groups for recreational and competitive athletes in different phases of training and competition.
- Chalk out diet plans, nutrition education and counselling for special group of athletes.

THEORY

(Credits 2; Hours 30)

UNIT I: Understanding Fitness and its Components

4 Hours

This unit introduces physical fitness and aspects related with its assessment and enhancement

- Physical fitness components and their assessment methods.
- Approaches and guidelines to achieve fitness.
- Principles of weight management and Fad diets.
- Importance of yoga in daily life.

UNIT II: Fundamentals of Sports Nutrition

8 Hours

In this unit students willlearn the basic aspects of Sports Nutrition and energy metabolism.

- Sports nutrition and integrated approach to care for athlete
- Energy systems and fuel utilization for different sports.
- Dietary recommendations for Sports persons.
- Fluid requirements and rehydration strategies for athletic performance
- Body composition in different physiological conditions and factors affecting body composition
- Methods of assessing body composition.
- Energy concept and factors affecting energy; methods of measuring energy intake and expenditure and concept of energy balance and Energy availability

UNIT III: Nutrition and Athletic Performance

10 Hours

This unit deals with nutrients, fluids and supplements for performance enhancement in exercise and sports.

- Macro- and Micro-nutrients; Nutritional guidelines; and Dietary recommendations for different categories of high performance sports
- Nutritional strategies for the Pre-exercise, Intra-exercise, post-exercise recovery and special considerations for different sports (endurance, strength, team sports, etc).
- Pre-Competition and post competition recovery phase
- Fluid requirements and rehydration strategies for athletic performance
- Supplements in Sport: performance enhancing substances, drugs, ergogenic aids and herbs in sports performance: Efficacy, Safety, regulations, and ethics

UNIT IV: Nutrition for special conditions in sports

4 Hours

This unit deals with the nutritional management of athletes with special needs

- Women athletes, adolescent athletes, athletes with diabetes, vegetarian athletes, paralympics and special Olympics.
- Specific nutrition for weight category sports and sports requiring aesthetics: Addressing eating disorders and disordered eating in athletes.

UNIT V: Emerging Trends and Research in Sports Nutrition, ethics and Professional Practice 4 Hours

- Advances in sports nutrition research Current trends in dietary practices among athletes. Future directions in sports nutrition.
- Professional responsibilities of a sports nutritionist- Ethical considerations in sports nutrition counselling.
- Working with a multidisciplinary team (coaches, trainers, sport-sciences and medical staff).

PRACTICAL

(Credits 2; Hours 60)

• PARQ assessment and interpretation

4 Hours

• Assessment of physical fitness of athletes

8 Hours

- Planning a day's diet for a fitness trainee who works out regularly at a gymnasium
 4 Hours
- Planning a training day's diet for an individual high performance athlete (all 5 sports groups) and a counselling module for the training phase **20 Hours**
- Assessing target weight and Planning/monitoring a weight loss diet during the training phase, for a high performance athlete 4 Hours
- Planning a diet for 1 week of carbohydrate loading for an ultra-endurance athlete

 8 Hours
- Planning a pre-, and post-competition meal for ultra-endurance, endurance, strength events, team events and sports-drinks during and after an event **8 Hours**
- Survey of sports supplements

4 Hours

Essential Readings:

- Burke, L.M., Minehan, M. and Deakin, V. (2021) Clinical Sports Nutrition, 6th edition, Publishers McGraw Hill.
- Hickson, J.F. and Wolinksky I. (1997) Nutrition for Exercise and Sport. 2nd edition, CRC Press.
- ILSI, NIN & SAI (2017) Nutritional recommendations for high performance athletes 2nd edition.
- Lal, P.R. (2009) Handbook of Sports Nutrition. Friend's Publication, Delhi, India.
- Mahan, L.K. and Escott Stump, S. (2016) Krause's Food & Nutrition Therapy. 15th edition, Saunders-Elsevier.

Suggested Readings:

- Austin, K. G. and Seebohar B. (2021) Performance Nutrition for Athletes. Human Kinetics.
- Bushman, B. (2017) ACSM's Complete Guide to Fitness & Health 2nd Edition, ACSM.
- Dan Benardot (2011) Advanced Sports Nutrition-2nd Edition.
- Fink, H. H. and Mikesky A. E. (2017) Practical Applications in Sports Nutrition 5th Edition.
- Heather, H.F. and Alan, E. Mikesky (2015) Practical Application in Sports and Nutrition. Fourth Edition. Jones & Bartlett Learning, Burlington, M.A.
- Ryan, M. (2020) Sports Nutrition for Endurance Athletes (3rd Edition). VeloPress.
- McArdle, W.D., Katch F. I. and Katch V. L. (2020) Sports and Exercise Nutrition (5th Edition). Wolters Kluwer.

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

DISCIPLINE SPECIFIC ELECTIVE

DSE HH 7B4: ADVANCED NUTRITION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITE OF THE COURSE

Course title & code	Credits	Credit dis	tribution of	f the course	Eligibility criteria	Pre-requisite of the course (if any)	
		Theory	Tutorial	Practical/ Practice			
Advanced Nutrition DSE HH 7B4	4	2	0	2	Studied Semester VI	Nil	

Learning Objectives

- To understand the functions of macro and micro-nutrients in a human body.
- To study the methods used for assessing nutrient requirements.
- To comprehend why and how the requirements change under special conditions.

Learning Outcomes

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

THEORY

(Credits 2; Hours 30)

Unit I: Human Nutritional Requirements

20 Hours

This unit describes the biological role and sensitive methods for estimating the requirements of different nutrients.

- 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

This unit describes how nutrient requirements change in special conditions in response to physiological changes.

- Extreme temperatures Hot and cold
- High altitude
- Space nutrition
- Nutrition in emergencies war, earthquakes and floods

PRACTICAL (Credits 2; Hours 60)

- 1. Methods of assessment of protein quality Chemical score, NDpCal%
- 2. Measuring energy expenditure Minute to minute activity record, GPAO
- 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 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.

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 COURSE DSE HH 7C1: SOCIAL & BEHAVIOUR CHANGE COMMUNICATION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Caussa Tido P. Cada		Course	Distribu	tion of the	Eligibility criteria	Pre-requisite of the course (if any)
Course Title & Code	Credits	Lectur e	Tutorial	Practical/ Practice		
Social & Behaviour Change Communication DSE HH 7C1	4	2	0	2	Studied up to Semester VI	NIL

Learning Objectives

- To understand the concept of Social and Behaviour Change Communication (SBCC) and comprehend its principles, methodologies, and theories.
- To explore the application of SBCC concepts to specific areas such as health and environmental issues
- To design effective strategies for social and behavior change communication that address a variety of social issues and challenges.

Learning Outcomes

The students would be able to:

- Gain an understanding of the connections between communication strategies and behavior change and learn the principles, methodologies, and theories of Social and Behavior Change Communication (SBCC)
- Develop knowledge and functional skills to apply SBCC concepts to various domains such as Health and environmental communication
- Critique and innovate current strategies for social and behavior change communication that will address a variety of social challenges

SYLLABUS OF DSE HH 7C1

Theory (Credits 2; Hours 30)

UNIT I: Foundations of Social and Behavior Change Communication

10 Hours

The unit provides an overview of the concept and relevance of Social and Behavior Change Communication (SBCC) including core concepts, principles, and theories. It includes various theoretical models of behavior change.

- SBCC: Introduction, Definition and scope, Significance of communication strategies for behavior change, Paradigm shifts in SBCC
- Key Concepts and Approaches of SBCC: Behavior change vs. social change Principles and Approaches, Role of Culture, Norms and values for behavior change
- Participatory and inclusive communication, Role of Mass media, interpersonal communication, social media in behavior change, Community-based communication approaches.
- Theories of Behavior Change: Socio-Ecological Model, Stages of Change, Health Belief Model, Social Cognitive Theory, Theory of Planned Behavior, Diffusion of Innovations, Social Network theory and others.

UNIT II: Tools and Techniques for SBCC

10 Hours

This unit focuses on the need for structured SBCC strategies, the application of the Theory of Change, and the steps involved in strategy design. It also reviews national SBCC campaigns to highlight best practices and challenges

- Need and Relevance of SBCC Strategies, Role of SBCC in achieving sustainable development goals (SDGs), Understanding the concept and application of Theory of Change in SBCC, Steps in SBCC Strategy Development
- SBCC Strategy Design and Implementation, Human Centered Design, Design Thinking and Principles of effective SBCC strategy implementation.
- Analysis of Barriers and enablers in the design and implementation of strategies. Role of partnerships, policy advocacy, and community mobilization in campaigns.
- Flagship campaigns (e.g., India's Pulse Polio Campaign, Swachh Bharat Abhiyan, or HIV/AIDS awareness initiatives)- Analysis of Strategies & Approaches

UNIT III: Application of SBCC to Social Issues

10 Hours

This unit examines the application of SBCC in addressing health, environmental, and social justice issues. It emphasizes campaign design, implementation, and the importance of monitoring and evaluation to ensure program success.

- SBCC for Health & Nutrition: Addressing issues of health, nutrition & well-being. Campaigns on vaccination, nutrition, maternal health, HIV/AIDS, and mental health, combating stigma and misinformation in health communication
- SBCC for Environment & Sustainable Development: promoting climate action and sustainability, engaging communities in waste management and conservation efforts, role of media in promoting environmental communication

- Gender & Social Justice: Addressing gender equality and empowerment, Using SBCC to combat discrimination and promote inclusion
- Monitoring and Evaluation (M&E): Importance of M&E in SBCC programs, Key indicators for assessing impact, Tools and techniques for tracking progress and refining strategies.

PRACTICAL (Credits 2; Hours 60)

- 1. Review of national and international SBCC campaigns
- 2. Critical analysis of SBCC campaigns from a socio-ecological perspective
- 3. Evaluation of IEC material of various SBCC campaigns on health & environment
- 4. Analysis and interpretation of Health and environment-related indicators as a result of SBCC campaigns
- 5. Designing SBCC campaign for social and developmental issues
- 6. Review of policy initiatives in Health & Environment

Essential Readings

- Atkin, C.K.& Rice, R.E. (2012) Theory and Principles of Public Campaigns. In C. Atkins & R Rice (EDS) Public Communication Campaigns. Newbury Park, CA: Sage
- Cox, R. (2006) Environmetal Communications and the Public Sphere. Thousand Oaks, CA: Sage.
- McKee, N., Manoncourt, E., Chin, S. Y., & Carnegie, R. (2000). *Involving people, evolving behavior*. Penang: Southbound.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.
- Subedi, N R, (2008). Advocacy Strategies and Approaches: A Training of Trainers Manual. International

Suggested Readings

- Ashford, J. B., LeCroy, C. W., &Lortie, K.L. (2010). *Human Behavior in the Social Environment: A Multidimensional Perspective* (4th ed.). Belmont CA: Wadsworth/Thomson Learning.
- Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.). (2015). *Health behavior: Theory, research, and practice* (5th ed.). Jossey-Bass.
- Kotler, P. & Lee, N. (2011). *Social Marketing: Influencing Behaviors for Good*, 4th Ed. Thousand Oaks, CA: Sage Publications. (K&L)
- Schiavo, R. (2013). Health communication: From theory to practice (2nd ed.). Jossey-Bass.
- Servaes, J. (Ed.). (2020). Sustainable development and communication in global change. Springer.
- UNICEF. (2016). Communication for Social and Behaviour Change Module 2: Theories of Communication for Development and Social Change. SBC Warehouse. Accessible at https://iec.unicef.in/document/communication-for-social-and-behaviour-change-module-2-theories-of-communication-for-development-and-social-change
- UNICEF. (2016). Communication for Social and Behaviour Change Module 6: Strategy Design: Planning Models, Processes and Levels of Intervention. SBC Warehouse. Accessible at https://iec.unicef.in/document/communication-for-social-and-behaviour-change-module-6-strategy-design-planning-models-processes-and-levels-of-intervention

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

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HH 7C2: ADVERTISING AND DIGITAL MARKETING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit di	stribution	of the course	Eligibility criteria	Pre-requisite of the course(if		
		Lecture	Tutorial	Practical/ Practice	any)			
Advertising and Digital Marketing DSE HH 7C2	4	2	0	2	Studied up to Semester VI	NIL		

Learning Objectives

- To introduce the fundamentals of advertising and digital marketing
- To develop critical understanding of the creative and strategic processes behind advertising campaigns.
- To equip students with practical skills in digital marketing tools and platforms.
- To analyze the ethical considerations and emerging trends in the digital advertising landscape.

Learning Outcomes

Students will be able to:

- Comprehend the fundamentals of advertising and digital marketing
- Develop critical understanding of the creative and strategic processes behind advertising campaigns.
- Equip themselves with practical skills in digital marketing tools and platforms.
- Analyze the ethical considerations and emerging trends in the digital advertising landscape.

Theory (Credits 2; Hours 30)

UNIT I: Concepts of Advertising and Digital Marketing

15 Hours

This unit provides an in-depth understanding of the fundamental concepts, historical evolution, and practical applications of advertising and digital marketing. It highlights their role in shaping businesses and influencing consumer behavior in a digital-first world.

- Definition, Scope, and Importance of Advertising and Digital Marketing
- Historical Evolution and Key Milestones in Advertising
- Types of Advertising: Print, Broadcast, Outdoor, and Digital
- Elements of an Advertisement: Headline, Visuals, Copy, Logo, and Tagline
- Ethical Considerations in Advertising Practices
- Introduction to Digital Marketing: Definition, Scope, and Relevance
- Digital Marketing Channels: Search Engines, Social Media, Email, and Websites
- Search Engine Optimization (SEO) and Marketing (SEM)
- Social Media Marketing (SMM): Platforms, Content Creation, and Audience Engagement
- Consumers marketing psychology behind their decision making.
- Power of digital communities and social influence.
- Paid Advertising Models: Pay-Per-Click (PPC), Display Ads, and Affiliate Marketing

UNIT II: Consumer Behavior and Data Analytics

7 Hours

This unit focuses on understanding the target audience and analyzing data to improve marketing effectiveness.

- Understanding consumer behavior and decision-making processes
- Understand the opportunities and challenges presented by online communities.
- Data analytics and tracking tools: Google Analytics, Facebook Insights
- Key performance indicators (KPIs) in digital marketing campaigns
- Role of Artificial Intelligence (AI) and machine learning in digital marketing

UNIT III: Campaign Development and Trends

8 Hours

This unit explains concept of advertising and digital marketing strategies

- Practical insights into creating and executing advertising and digital marketing campaigns.
- Steps in creating an advertising campaign: research, strategy, design, and evaluation
- Integrated Marketing Communication (IMC)
- Emerging trends: influencer marketing, programmatic advertising, AR/VR in campaigns
- Case studies of successful advertising and digital marketing campaigns

PRACTICAL (Credit 2; Hours 60)

- Ad Campaign Design
- SEO and Content Creation
- Social Media Marketing
- Data Analytics
- Case Study Analysis
- Portfolio Development
- Measuring Results to Enhance Business Success

Essential Readings

- Belch, G. & Belch, M. (2017). Advertising and Promotion: An Integrated Marketing Communications Perspective. McGraw Hill Education.
- Chaffey, D. & Ellis-Chadwick, F. (2022). *Digital Marketing: Strategy, Implementation, and Practice*. Pearson Education.
- Kotler, P. & Keller, K. (2022). *Marketing Management*. Pearson Education.
- Ryan, D. (2020). Understanding Digital Marketing. Kogan Page.

Suggested Readings

- Moran, M. & Hunt, B. (2020). Search Engine Marketing, Inc. IBM Press.
- YouTube and LinkedIn Learning Tutorials on Digital Marketing (as accessed in 2023).
- Case studies and industry reports from Google, Facebook, and HubSpot.
- Kamath K. (2024). *Social Media Marketing Essentials You Always Wanted To Know*. Vibrant Publishers.
- Vibrant Publishers. (2020). Digital marketing essentials you always wanted to know.

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DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HH 7C3: NGO MANAGEMENT, CORPORATE SOCIAL RESPONSIBILITY & FUNDRAISING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

		Credit distribution of the course				Pre-requisite	
Course title & Code	Cred its	Lecture Tutori /		Practical / Practice	Eligibility criteria	of the course (if any)	
NGO Management, Corporate Social Responsibility & Fundraising DSE HH 7C3	4	2	0	2	Studied up to Semester VI	Nil	

Learning Objectives

- To foster a foundational understanding of NGO structures, operations, and strategies for successful networking and fundraising.
- To build essential management skills and analytical abilities for effective NGO management.
- To cultivate an understanding of the concept of Corporate Social Responsibility (CSR) and its significance in developing economies and raise awareness about CSR initiatives undertaken in India.
- To create understanding about the processes and strategies for fundraising.

Learning Outcomes

- Demonstrate key management competencies and analytical skills required to address challenges in NGO operations.
- Explain the organizational structures and operational frameworks of NGOs and design effective strategies for networking and resource mobilization.
- Understand the concept of Corporate Social Responsibility (CSR) and its relevance and implementation in the Indian context.
- Develop practical knowledge of diverse fundraising strategies and apply these concepts to create effective fundraising plans for NGOs.

Theory (Credits 2; Hours 30)

UNIT I: Development Organizations

10 hours

This unit provides an overview of development organizations, exploring their types, origins, and foundational frameworks. The critical aspects of credibility, accountability, and the sustainability of development actions are also addressed preparing students to evaluate and contribute effectively to development initiatives.

- Development Organizations Types, genesis, vision, mission, values, ideological and legal frameworks
- NGOs/ Civil Society groups- historical and contemporary perspectives, Role in development
- Social capital, democracy, social transformation and change.
- Credibility, accountability and sustainability of development action

UNIT II: Corporate Social Responsibility

10 hours

This unit introduces the concept of Corporate Social Responsibility (CSR) and its connections to development. It traces the growth of CSR through historical and contemporary lenses, exploring both national and international scenarios. It also deals with the expansion of CSR initiatives including ideological, socio-economic, legal, and environmental perspectives.

- CSR- Definition, concept, linkages to development,
- Growth of CSR-historical and contemporary perspectives, national & international scenario
- Factors influencing growth of CSR in societies- ideological, socio-economic, legal & environmental perspectives
- CSR activities—nature, types, impact on development
- CSR & development organisations—relationships, functioning & impact on organisational functioning
- Government initiatives for promoting CSR

UNIT III: Dimensions of Fundraising

10 hours

This unit emphasizes the importance of fundraising, exploring its nature, sources, and techniques. Students will learn strategies for mobilizing financial and non-financial funding and analyze donor behaviour.

- Fundraising- importance, nature, sources and techniques. Principle and theories of Fund raising.
- Types of agencies funding development programmes, nature of support, inter-sectoral partnerships and synergies.
- Financial and Non-financial funding- nature, sources, mobilization strategies
- Donor Behaviour- needs of donors- economic, psychological and, sociological perspective; brand marketing and philanthropy
- Fundraising ethics, ethical decision making, code of Fundraising.
- Impact of fundraising on development organizations and initiatives

PRACTICAL (Credits 2; Hours 60)

- Case study of a national and an international NGO
- Case Study of CSR initiatives
- Visits to CSR projects
- Understanding CSR Strategies-objectives, approaches, roles and tasks of a corporate managers
- Fundamentals of Fundraising Planning, designing a plan for your own fundraising activity- with objectives, writing objectives, segmentation, positioning, branding and making the case for support.
- Designing Communication strategies to appeal to donors for fundraising.
- Audit communications to enhance their effectiveness in both monetary terms, compelling case for support
- Understanding project proposals for grants and developing fund raising plans and strategies.

Essential Readings

- Chatterji, M. (2014). Corporate Social Responsibility. New Delhi : Oxford University
- Communication, Governance. UK: Cambridge University Press.R. Kumar, S. L. Goel. (2005). Administration and Management of NGOs: Text and Case Studies Paperback. Deep Publications, India. ISBN 8176296015.
- Mandal, B.N (2012). Corporate Social Responsibility in India. Global Vision Publishing House: Delhi.
- Narang R.K. (2009). Corporate Social Responsibility-Replicable Models on Sustainable Development. New Delhi: The Energy & Energy & Enstitute.

 Press.
- S. Chandra (2003). Guidelines for NGO Management in India. Kanishka Distributors, New Delhi. ISBN 978-8173916038.

Suggested Readings

- Abraham, A. (2003). Formation and Management of NGOs. Third Edition, Universal Law Publishing Co. Pvt Ltd., New Delhi. ISBN 9350350122.
- Agarwal, S.K. (2008). Corporate Social Responsibility in India, Sage publication Pvt. Ltd. https://doi.org/10.4135/9788132100027.
- D. Lewis (2001). Management of Non-Governmental Development Organization. Second Edition, Routledge, New York. ISBN 9780203002162.
- Grayson D., Hodges A. (2004). Corporate Social Responsibility- Seven Steps to Make Corporate Social Responsibility Work For Your Business. UK: Greenleaf Publishing Limited.
- Lewis. D. (2014). Non-governmental Organizations: Management and Development. 3rd Edition. Routledge. ISBN 9781138294097.
- Rasche, A; Morsing, M; Moon, J. (2017). Corporate Social Responsibility: Strategy,
- Subedi, N R, (2008). Advocacy Strategies and Approaches: A Training of Trainers Manual. International Centre for Integrated Mountain Development (ICIMOD). ISBN: 9291150830
- Sundar, P. (2013). Business and Community: The Story of Corporate Social Responsibility in India. New Delhi, Sage Publication. ISBN 978-81-321-0955-6.
- Til, J.V. (1988). Mapping the Third Sector: Voluntarism in a Changing Social Economy. Foundation Centre, New York. ISBN 0879542403.

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DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HH 7C4: INFORMATION AND COMMUNICATION TECHNOLOGIES FOR DEVELOPMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credi		tion of the	Eligibility criteria	Pre- requisite of the course
		Lect	Tutorial	Practical/ Practice		(if any)
Information and Communication Technologies for Development DSE HH 7C4	4	2	0	2	Studied up to Semester VI	NIL

Learning Objectives

- To examine the role of Information and Communication Technologies (ICTs) in fostering economic, social, political, and environmental development
- To enhance awareness about ICT initiatives across various sectors
- To provide an understanding of the relationship between ICTs and Alternate Media
- To familiarize learners with the strategies for creating innovative and effective ICT-based tools and assess their efficacy

Learning Objectives

- Examine the relationship between ICTs and Development.
- Acquire knowledge about the effective usage of ICTs for social change and development.
- Address the national and global development concerns by using ICTs effectively.
- Understand the impact of ICT on different areas of development, such as poverty alleviation, education, healthcare, governance, and environmental sustainability.
- Know the convergence between ICTs and Alternate Media for development

Theory (Credits 2; Hours 30)

Unit I: Introduction to ICTs

10 Hours

Unit Description: This unit elaborates upon the concept and evolution of ICTs. It highlights the issue of Digital divide and gender divide. It also explores upon learning theories and their implications for using ICTs. The unit also highlights development of ICTs and their role in global development.

- Understanding ICTs: Meaning, Definition
- Overview of ICTs: Internet, mobile technology, social media, digital platforms, etc.
- Evolution and Growth of ICTs: National and International platforms
- Second Communication Revolution, Digitalization, Cultural globalization and ICTs
- Classification of ICTs: Traditional and modern ICTs and their relevance to development
- Disparities and Divides: Digital Divide, Global and National Scenario, Gender and regional differences
- Perspectives and theories: Technology as Amplifier, Transfer and Diffusion of Technology
- Limitations and challenges of ICTs: Challenges and opportunities for ICT both in urban and rural areas.
- ICT related development Indices
- Government policies & Programs for use of ICT Development and Digital literacy
- Design Thinking & ICTs: Use of Principles of Design Thinking and Human Centered Design approach for developing ICT tools and strategies to use them

Unit II: ICT's in addressing national and Global Development Concerns

10 Hours

Unit Description: This unit focuses on various media such as radio, television, mobile applications and new media as tools for development. It highlights the role of ICTs as catalyst for development. The unit also covers the various initiatives of national and international level to address the global development challenges and the strategies to combat them.

- Radio, Television, New Media and Mobile as a tool for ICT
- Stakeholders in ICT projects, funding patterns and management
- Creating networks, partnerships and collaborations for use of ICTs
- Concept and characteristics of Networked Societies
- Role of ICTs in Livelihood development and Poverty Reduction, Governance, Education, sustainable agriculture; Environment protection & Climate change, Disaster Risk reduction and Empowerment of women
- National and international ICT policies for development
- Study, Analysis and design of ICT tools for development focusing on diversity and inclusion
- Cyber security and Data Privacy: Challenges and solutions in ensuring the security of digital platforms for development.
- National Cyber Crime Reporting Portal and Incident Reporting

Unit Description: This unit explains the concept of alternative media and its role in society. It also explores the interconnection of ICTs with alternative media. The unit analyzes the impact of ICTs on development and dissemination of alternative media.

- Concepts and characteristics of Community media
- Community media policy: Growth, National and international perspectives ICTs
- Traditional media as Community media
- Social networking sites and Multimedia platforms
- Participatory content creation and building engaging user experiences around ICTs
- Alternative print media- Characteristics, Strengths and Weakness
- Metaphors of Community Media- Alternative media, Citizens Media and People's media
- Digital Media for Development: Social media platforms, digital storytelling, community radio, podcasts, and their role in creating social change
- Artificial Intelligence and Development
- Computer mediated communication & development- Types, importance and Significance

PRACTICAL (Credits 2; Hours 60)

- Analysis of successful ICT4D (Information and Communication Technologies for Development) projects/programmes in India and worldwide.
- Review of Mobile Apps on various Development Issues
- Analyzing and reviewing various internet-based platforms for social change such as Blogging, YouTube, Instagram, etc.
- Review of websites for e-initiatives of Govt. of India
- Research and development of a report/presentation related to Cyber security and Cyber Hygiene
- Conceptualization, ideation and creation of ICTs for a social media campaign

Essential Readings

- Heeks, R. (2018) . *Information and Communication Technology for Development (ICT4D)*. Routledge Publications, UK: ISBN-978-1138101814
- Mishra, RC. (2010). Cyber Crime Impact in the New Millenium, Author Press
- Pannu, P., & Tomar, Y. A. (2010). *ICT4D Information Communication Technology for Development*. IK International Pvt Ltd.
- 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.

Suggested Readings

- Buckingham, D. (2008). Youth, Identity, and Digital Media. The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning. Cambridge, MA: The MIT Press.
- GoM. (2020). Cyber Security Awareness Booklet for Citizens. Volume 1. Office of Special Inspector General of Police Maharashtra Cyber, Home Department. Government of Maharashtra

- $\frac{https://cybercrime.gov.in/pdf/Cyber\%20Security\%20Awareness\%20Booklet\%20for\%20Citizens.pdf}{}$
- Hassan, R. & Thomas, J. (2006). The New Media Theory. Open University Press.
- Kihrwadkar A, Pushpanadan, (2006), *Information and Communication Technology in Education*, Sarup and Sons, Delhi. Chapter- 1,2,3
- Kukkonen, H.O. & Kukkonen, H.O. (2015). Humanizing the Web: Change and Social Innovation (Technology, Work and Globalization). New Delhi: Palgrave Macmillan.
- Marshall, P. D. (2004). New Media Cultures, Information and Communication Technology for Development. Hodder Stoughton Educational
- MoHA. (2021). *Cyber Hygiene for Cyber Space Dos and Don'ts Basics*. Ministry of Home Affairs.
 - https://cybercrime.gov.in/pdf/Final English Manual Basic.pdf
- Preston, P. (2001).Reshaping Communication: Technology, Information and Social Change.
 London, California, New Delhi: Sage Publications. DOI: http://dx.doi.org/10.4135/9781446222164
- Vanaja, M. & Rajasekar, S. (2016). Information & Communication Technology (ICT) In Education. New Delhi: Neelkamal Publications.
- Warschauer, M. (2004). Technology and Social Inclusion: Rethinking the Digital Divide. MIT Press (MA).
- 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 COURSE DSE HH 7D1- HISTORIC COSTUMES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Di	istribution	of the Course	Eligibility Criteria	Pre-requisite of the Course (if
		Lecture	Tutorial	Practical/ Practice		any)
Historic Costumes DSE HH 7D1	4	2	0	2	Studied Semester VI	Nil

Learning Objectives

- To study the development of costume from ancient times to the 19th century, considering socio-cultural and technological changes.
- To create awareness and understanding of the styles and special features in costume through the ages.

Learning Outcomes

- Understand the evolution of western costume.
- Gain awareness of different styles and special features in costume through the ages.
- Draw inspiration from the long-established styles for designing.

SYLLABUS OF DSE HH 7D1

THEORY (Credits 2; Hours 30)

UNIT I: Costumes in Early Civilizations

7 Hours

This unit focuses on the origin and evolution of Costumes in the ancient civilizations (300BC-300 AD)

- Origin of Costume
- Mesopotamia
- Egypt
- Greece
- Rome
- India

UNIT II: Costumes in the Middle Ages

6 Hours

This unit traces the development of European costumes during the middle ages.

- The feudal ages (1100 AD- 1300AD)
- The late middle ages (1300AD-1500AD)

UNIT III: Costumes in 15th and 16th century

5 Hours

This unit aims to explore the advancements in textiles and costumes in the 15th and 16th centuries.

• Renaissance: Italy, France, England

• India: Mughal period

UNIT IV: Costumes in 17th to 19th century

12 Hours

This unit highlights the changes and developments in European costumes through different eras from 17th to 19th century reflecting social milieu and technological advancements.

- Baroque and Rococo periods France and England
- French Revolution and thereafter (1790AD-1900AD)
- The Directoire and Empire period (1790AD-1820AD)
- The Romantic period (1820A.D-1850AD)
- The Crinoline period (1850 AD-1869AD)
- The Bustle period (1870 AD- 1900 AD)

PRACTICAL (Credit 2; Hours 60)

- 1. To make a presentation on sources of information for historic costumes
 - Archaeological excavations and discoveries
 - Ancient literature, chronicles and archival records
 - Museums and art galleries
 - Sculpture and pottery
- 2. To design garments and accessories inspired from any one ancient civilization.
- 3. To make a presentation or report on costumes during medieval period.
- 4. To make a portfolio highlighting costumes during 17th 19th century (any one)
 - Baroque and Rococo periods France and England
 - The Directoire and Empire period (1790AD-1820AD)
 - The Romantic period (1820A.D-1850AD)
 - The Crinoline period (1850 AD- 1869AD)
 - The Bustle period (1870 AD-1900 AD)

- 5. To make a report or presentation on any two design collections of eminent designers inspired by historic costumes.
- 6. Select any one garment or accessory and trace its origin, evolution and cultural significance
- 7. Select a historical figure (Eg Queen Elizabeth I, Emperor Akbar, Louis XIII etc.) and analyze their costume with reference to textile materials and colours used, styling of garments, silhouette, accessories etc.
- 8. Visit a textile museum or collection to analyze and appreciate historical and cultural textiles and costumes.

Essential Readings

- Tortora, P. G. and Marcketti, S. B. (2015) Survey of Historic Costume, Fairchild Books.
- Alkazi, R. (1983) Ancient Indian Costume, Art Heritage Books.
- Black, J. A. and Garland M. (1978) A History of Fashion, London: Orbis Publishing Ltd.

Suggested Readings

- Cumming, V. (2004) Understanding Fashion History, London: Batsford.
- Lester, K.M. (1956) Historic Costume, Ilinois: Chas A Bennett Co. Inc.
- Peacock, J. (2007) The Chronicle of Western Costume, Thames and Hudson.

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

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HH 7D2: DYEING, PRINTING AND FINISHING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distribut Course		Eligibility Criteria	Pre- requisite of the
		Lecture	Tutorial	Practical		Course (if any)
Dyeing, Printing and Finishing DSE HH 7D2	4	2	0	2	Studied Textile Science DSC HH 410	Nil

Learning Objectives

- To gain knowledge of the fundamentals of dyeing and printing on textiles.
- To analyse the application of different dyes on various textile substrates.
- To study various kinds of finishing processes on textile fabrics.

Learning Outcomes

- Understand the chemistry of various dye classes.
- Describe the process of dyeing and printing various fibres with different dyes.
- Describe methods and styles of printing fabrics.
- Understand concepts of mechanical and chemical finishing of textiles.

SYLLABUS OF DSE HH 7D2

THEORY (Credits 2; Hours 30)

UNIT I: Dyeing 10 Hours

In this unit, the students will learn about the chemistry and application of various dye classes on various fibre substrates.

- Theory of dyeing
- Chemistry and application of various dye classes: Direct, Reactive, Vat, Azoic, Sulphur, Acid, Basic, Disperse
- Natural Dyes and Mordants: Plant dyes, Mineral based dyes, Animal dyes

UNIT II: Printing 10 Hours

In this unit, the students will learn about the various methods and styles of printing and printing of various textile substrates.

- Methods of printing: Block, Roller, Screen (flatbed, rotary)
- Styles of printing: Direct, Resist, Discharge, Transfer, Digital, Flock
- Finishing and after treatment of printed goods: Ageing, Steaming, Baking, washing-off

UNIT III: Measurement of Colour and Colour Fastness

4 Hours

In this unit, students will gain an understanding of the concept and measurement of colour fastness

- Colour theory
- Concept of colour measurement: Optical density, K/S, L a*b*, L c*h* values
- Principle of colour fastness and its measurement: Wash, Light, Rub, Perspiration

UNIT IV: Finishing 6 Hours

In this unit the students will learn about the chemistry and function of various common finishes applied to textiles

- Classification of finishes
- Preparatory finishes: For Cellulosic, Proteins and Synthetic fibres
- Aesthetic Finishes
- Functional Finishes

PRACTICAL (Credit 2; Hours 60)

- 1. Preparatory Finishing: Cellulosic and Protein fibres
 - Desizing
 - Scouring
 - Bleaching
 - Mercerisation

2. Dyeing

- Cotton using Direct, Reactive, Vat and Azo dyes
- Silk and wool using Acid, Basic and Reactive dyes
- Acrylic using Basic Dyes
- Polyester using Disperse dyes
- Selected natural dyes on cotton

3. Printing

- Screen Printing of cotton using Direct, Reactive and Azoic dyes
- Resist printing of cotton using Azo dyes

- Discharge printing of cotton using Direct dyes
- 4. Colour Fastness Measurement
 - Wash fastness
 - Crock fastness
 - Perspiration fastness
- 5. Colour Measurement
 - Optical Density
 - K/S
 - L a*b*
 - L c*h*

Essential Readings

- Trotman, E. R. (1984) *Dyeing and Chemical Technology of fibres*, Sixth edition, England: Charles Griffin and Company Ltd.
- Rastogi, D. and Chopra, S.(Eds.) (2017) *Textile science*, India: Orient Black Swan Publishing Limited
- Miles, L.W.C. (1994) *Textile Printing*, 2nd ed., West Yorkshire: Society of Dyers and Colorists, England.
- Sekhri S. (2022) *Textbook of Fabric Science: Fundamentals to finishing, 4th ed.*, PHI Learning Pvt. Ltd. Delhi
- सेखड़ीों सीमा, (2022) वस्त्र ववज्ञान,PHI Learning Pvt. Ltd. Delhi

Suggested Readings

- Aspland J. R., (1997) Textile Dyeing and Colouration, NC: AATCC.
- Clarke, W. (1977) An Introduction to Textile Printing, London: Butterworth and Co. Ltd.
- Shenai, V.A. (1987) *Chemistry of Dyes and Principles of Dyeing*, Vol II, Bombay: Sevak Publications.
- Shore, John (Ed) (1990) *Colorants and Auxiliaries: Organic Chemistry and Application Properties*, Vol. 1 & 2, West Yorkshire: Society of Dyers and Colorists, England.

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DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HH 7D3: FASHION MARKETING AND MERCHANDISING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credi	it distribut course	Eligibili ty	Pre- requisi	
		Lecture	Tutorial	Practical	criteria	te of the course (if any)
Fashion Marketing and Merchandising DSE HH 703	4	2	0	2	Studied Semester VI	Nil

Learning Objectives

- To understand the fundamentals of fashion retailing and merchandise planning.
- To study core marketing principles, including product and brand management.
- To gain insights into pricing and promotional strategies in the fashion retail industry.

Learning Outcomes

- Knowledge of merchandising activities in a retail setup
- Develop and apply effective Merchandise Planning, Assortment Management, and Inventory Control techniques in a retail setting
- Knowledge of Product Planning and development, and Brand Management Strategies.
- Skill to deliver the customer value through Integrated Marketing Communication strategy.
- Design customer driven Marketing Mix strategy.

THEORY (Credits 2; Hours 30)

UNIT I: Fundamentals of Marketing Management

6 Hours

In this unit, students will gain knowledge of the foundational principles of marketing. They will understand the importance of the 4P's of marketing and learn to segment and target markets effectively.

- Importance and Scope of Marketing
- Core Elements of Marketing: The 4P's
- Market Segmentation and Targeting

UNIT II: Product and Brand Management

7 Hours

This unit introduces students to product lifecycle management, brand management concepts, and positioning strategies. Emphasis is placed on developing strong brands and differentiating products in competitive markets.

- Product Mix, Product Classification & Lifecycle
- Brand Management
 - o Brand Attributes, Identity, and Image
 - o Branding Strategies

Product Positioning and Differentiation in Competitive Markets

UNIT III: Pricing and Promotion Strategies Hours

6

In this unit, students will understand various pricing strategies and promotional techniques to improve market reach. They will also learn about integrated marketing communications and its role in product success.

- New Product Pricing Strategies
- Product Mix Pricing Strategies
- Integrated Marketing Communication Strategy
- Development And Managing Advertising Programs
- Sales Promotion and Personal Selling

UNIT IV: Introduction to Fashion Retailing Hours

6

In this unit, students will explore the retail environment, its emerging trends, and various types of retail formats. They will also learn the importance of visual merchandising in driving customer engagement and enhancing sales.

- Overview of Retail Environment and Emerging Trends
- Classification of Retail Institutions and Formats

Visual Merchandising in Retail

UNIT V: Merchandise Planning and Management Hours

6

This unit focuses on the core concepts of merchandising, types of merchandise, and effective planning techniques. Students will understand how to create assortment plans and set appropriate inventory levels to meet market demands.

- Concept of Merchandising
- Merchandise Categories: Staple, Fashion, and Seasonal
- Assortment Planning
- Setting Product Availability and Inventory Levels

PRACTICAL

(Credit 2; Hours 60)

1. Demographic Analysis of the Indian Market

• Study and analyze the demographics and psychographics of the Indian market to understand consumer preferences, purchasing behaviour, and market segmentation.

2. Branding and Positioning Strategies

- Case Study Analysis: Select a renowned fashion brand and evaluate its branding (focusing on brand identity, attributes etc.) and its positioning strategies in the Indian market.
- Create a Brand Strategy: Develop a comprehensive branding framework for a hypothetical brand, including logo, tagline, and positioning statement, highlighting its unique selling propositions (USP) and differentiation strategies.
- Competitor Analysis: Compare and contrast the branding and positioning strategies of two competing brands.

3. Visual Merchandising and Customer Engagement

- Store Visit and Analysis: Observe and document the visual merchandising strategies of a retail store, assessing its impact on customer engagement and sales.
- **Design and Develop**: Create a visual merchandising display concept for a fashion retail store, incorporating elements like layout, color schemes, and product placement.

4. Promotion and Communication Strategies

- **Promotion Analysis**: Examine the influence of promotional activities, such as advertising campaigns, discounts, and offers, on consumer behaviour and purchase decisions.
- **Develop a Communication Strategy**: Create a promotional plan for a hypothetical fashion brand, integrating both traditional media (print, television) and social media platforms targeting a specific demographic.

5. Retail Trends and Innovation

- **New Retail Formats**: Study and analyze how brands use new retail formats such as pop-up stores, concept stores, and hybrid stores to attract customers.
- Channels Effectiveness: Compare the effectiveness of two marketing channels (e.g., e-commerce vs. social commerce) for driving sales / Explore the use and impact of marketing channels such as influencer marketing, social commerce, e-commerce, mobile apps, and loyalty programs.

6. Merchandise Planning and Assortment Development

• Develop an assortment plan for a specific product category for a retail store, focusing on branding and positioning to align with target consumer preference

Essential Readings

- Levy, M, Weitz, B.A. and Pandit, A. (2008) *Retailing Management*, Delhi: Tata McGraw Hill Education Private Limited.
- Kotler, P., Keller, K.L., Koshy, A. and Jha, M. (2012) *Marketing Management* 14th *ed*.: Pearson.
- Pegler, M. (2006) *Visual Merchandising and Display*, New York: Fairchild Publications Inc.
- Clark. J. (2014) Fashion Merchandising Principles and practice, Suffolk: Lavenham press ltd.

Suggested Readings

- Diamond, J., Diamond, E. and Litt, S.D. (2006) *Fashion Retailing- A Multi- Channel Approach*: Bloomsbury Publishing Inc.
- Jain, J.N. and Singh, P.P. (2007) *Modern Marketing Management- Principles and Techniques*. New Delhi: Regal Publications.
- Kunz,I, and Grace 3rded.(2009) *Merchandising*, New York:Fairchild publications, Inc.
- Posner, H. (2015) *Marketing Fashion –Strategy, Branding and promotion*, 2nd ed., Laurence King Publishing.
- Robbins, P.S. and Dcenzo, A. D. (2005). *Fundamentals of management- essential concepts and Applications* 5thed.: Pearson education Inc, Dorling kindersley (India) pvt. ltd.
- Belch, E. G. and Belch, A.M. (2003). Advertising and Promotion- An integrated marketing communications perspective 6th ed.: Tata McGraw-Hill publishing company ltd.
- Poloian, G.L.(2009). Multichannel Retailing: Fairchild Books-New York.

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DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HH 7D4: GARMENT MANUFACTURING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit	Distribut Course		Eligibility Criteria	Pre- requisite of the		
		Lecture	Tutorial	Practical/ Practice		Course (if any)		
Garment Manufacturing DSE HH 7D4	4	2	0	2	Studied DSE HH 4D: Pattern Making and Construction	Nil		

Learning Objectives

- To develop an understanding of the garment industry's structure, operations, and key functional areas.
- To comprehend the processes involved in garment production, including preproduction, production, and post-production stages.
- To gain familiarity with the various materials, machines, tools, and equipment used in garment manufacturing.

Learning Outcomes

- Enable students to understand the functioning of the garment industry, including its processes and technical parameters in garment production.
- Enhance students' awareness of sewn products, machinery, and equipment, preparing them for professional roles within the garment industry.

SYLLABUS OF DSE HH 7D4

Theory (Credits 2; Hours 30)

UNIT I: Introduction to the Garment Industry and its Pre-Production Processes 9 Hours

This unit offers a foundation in garment industry workflows, focusing on pre-production processes like pattern making, sampling, and fabric sourcing. It covers key standards, production systems, and the role of time and motion studies in enhancing productivity.

- Overview of the garment industry, its key sectors, and their roles
- Pre-production processes- Recording measurements, Pattern making, Sampling, Fabric development, and sourcing, Preparation of specification sheet/Tech-pack, Production planning & control

- Standards and specifications
- Production systems
- Time and motion study- Introduction, the effect of time and motion study on productivity in the garment sector

UNIT II: In-production Processes in Garment Manufacturing 15 Hours

This unit covers key in-production processes in garment manufacturing, including marker-making, fabric spreading, cutting, and fusing. It also explores stitching tools, techniques, and machine mechanisms, emphasizing efficiency and quality control.

- Marker-making- planning, production, efficiency, methods of making
- Spreading of fabric- requirements, methods of spreading
- Cutting- methods and tools, ticketing and bundling
- Fusing- advantages, requirements, processes, equipment, methods, and quality control
- Stitching- types of sewing machines: general and special purpose machines
- Types of sewing needles and threads
- Stitch types and seam types- suitability and usage
- Machine beds and feed mechanisms in sewing machines

UNIT III: Post-Production Processes in Garment Manufacturing 6 Hours

This unit covers key post-production processes, focusing on quality evaluation of garment components. It also explores finishing techniques such as trimming, pressing, packing, and shipment preparation for market-ready products.

- Evaluating the quality and fit of various garment components- neckline, collars, sleeves, cuffs, plackets, pockets, seams, hemlines, darts, pleats, gathers, flares, tucks, yokes, waistbands.
- Garment finishing- Thread trimming, stain removal, cleaning, dry-cleaning, pressing, checking, folding and packing, warehousing and shipment

PRACTICAL (Credits 2; Hours 60)

- 1. Developing patterns for bodices with added fullness
- 2. Developing variations in sleeves- bishop, puff, and short lantern styles
- 3. Creating collar variations- basic shawl collar and bushirt collar
- 4. Drafting of women's lower garment (trouser/variations of skirts/ palazzo)
- 5. Construction of a formal top for self with design elements such as a Peter Pan collar on an altered neckline, mandarin collar, or shawl collar, with a shirtmaker or bishop sleeve and a placket with a suitable fastener.
- 6. Construction of a skirt or bifurcated garment for self, featuring a waistband, inseam side-hip pocket, and placket with a suitable fastener.

Essential Readings

- Armstrong, H. J. (2014). Pattern making for fashion design (5th ed.). Dorling Kindersley, New Delhi.
- Brown, P., & Rice, J. (2014). *Ready to wear apparel analysis* (4th ed.). Pearson Education. New Delhi
- Tyler, D.J. (2008). *Carr and Latham's technology of clothing manufacture* (4th ed.). Blackwell, UK.
- Cooklin, G. (2006). Introduction to clothing manufacture (2nd ed.). Blackwell, UK.
- Liechty, E. et.al. (2010). *Fitting and pattern alteration: A multi-method approach to the art of style selection, fitting and alteration.* (2nd ed.). Fairchild Publications. New York.

Suggested Readings

- Aggarwal, J., Yadav, S., & Sonee, N. (2024). *Manual for B.Sc. Home Science pattern making and apparel construction*. Elite Publishing House. New Delhi
- Aldrich, W. (2008). Metric pattern cutting for women's wear (5th ed.). Blackwell. UK
- Azad, N. (2019). Sewing technology. Neelkanth Publishers Pvt. Ltd. New Delhi
- Dunham, G. R. (2021). *The fitting book: Make sewing pattern alterations and achieve the perfect fit you desire*. Gina Renee Designs Publication.
- Glock, R. E., & Kuntz, G. I. (2009). *Apparel manufacturing: Sewn product analysis*. (4th ed.). Pearson Education, New Delhi.
- MacDonald, N. M. (2010). *Principles of flat-pattern design* (3rd ed.). Fairchild Books. New York.
- Pepin, H. (1947). Modern pattern design: the complete guide to the creation of patterns as a means of designing smart wearing apparel. Funk and Wagnalls. New York.
- Reader's Digest (Eds.). (2002). New complete guide to sewing: Step-by-step techniques for making clothes and home accessories. Reader's Digest, New York
- Stamper, A. A., Sharp, S. H., & Donnell, L. B. (2005). *Evaluating apparel quality* (2nd ed.). Fairchild. New York

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DISCIPLINE SPECIFIC ELECTIVE

DSE HH 7E1: HUMAN FACTORS AND ERGONOMICS

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre- requisite of
		Lecture	Tutorial	Practical		the Course (if any)
Human Factors and Ergonomics DSE HH 7E1	4	2	0	2	Studied Semester 6	Studied Space Design & Sustainability DSC HH 617

Learning Objectives

- To sensitize the students towards the importance of ergonomics and its application in daily life
- To understand components of worker inputs
- To develop understanding of functional design and arrangement of workplaces and equipment
- To identify human and workplace factors which contribute to ergonomic hazards
- To develop aptitude in identifying the product / space design problems at place of work

Learning Outcomes

- Understand the concept, history and importance of ergonomics in designing.
- Recognize and appreciate the scope of ergonomics in the professional arena
- Develop skills in taking anthropometric measurements as applied to different work stations.
- Apprehend the techniques of conducting time & motion and energy studies.
- Critically evaluate and design different workstations & equipment with respect to their functional effectiveness.

SYLLABUS OF DSE HH 7E1

THEORY (Credits 2; Hours 30)

UNIT I: Introduction to Human Factors and Ergonomics

8 Hours

This unit introduces the students to the concept of ergonomics and anthropometry and their importance in daily life

- Ergonomics- concept, significance, history, application of Ergonomics in daily life
- Anthropometry History and its application in interior designing for different work areas and workers
- Human-Centred Design- Design Thinking concept and methodology

UNIT II: The User Component

6 Hours

This unit highlights the importance of various components of worker inputs

- Physical: Bio-mechanics of human movement and musculo-skeletal system, Anatomical position, reference planes and movements
- Temporal
- Cognitive
- Affective

UNIT III: Workplace and Equipment Design

12 Hours

This unit focuses on the functional design of workplaces, work study techniques, indices of indoor comfort and man-machine interface.

- Functional design and arrangement of workplaces
- Work study- Time and motion study, energy study
- Indices of indoor comfort: ventilation, lighting, temperature, noise
- Human Machine Interface- controls and displays

UNIT IV: Risk factors in Ergonomics

4 Hours

This unit provides insight into the occupational safety and health at workplace.

- Identifying ergonomic hazards
 - Occupational safety and health at workplace Applications of ergonomics in different work environments

PRACTICAL (Credits 2; Hours 60)

1. Anthropometric Measurements

8 Hours

• Basic Anthropometry of a selected demography

2. Work Study

8 Hours

- Time and motion study
- Energy study Physiological cost of workload

3. Kitchen plans

20 Hours

• Prepare floor and elevation plans for different types of kitchen

4. Indices of internal comfort

6 Hours

• Testing suitability of selected environmental factors at a workplace

5. Ergonomic Assessment and Occupational safety analysis of Workplaces

18 Hours

- Case study of a selected workplace Identifying and assessing workplace for a selected occupation, analysis of posture and equipment used, suggestions for improvement in process of the activity
- Designing workstation/equipment suitable to the selected occupation

Essential Readings

• Bridger, R. (2017). *Introduction to Human Factors and Ergonomics*. CRC Press.

- Salvendy, G. (2012). *Handbook of Human Factors and Ergonomics*. John Wiley & Sons.
- Chakrabarti, D. (1997). *Indian Anthropometric Dimensions for Ergonomic Design Practice*. National Institute of Design.
- Tosi, F. (2019). *Design for Ergonomics*. Springer Nature.
- Steidl, R.E. & Bratton, E.C. (1968). Work in the Home. John Wiley & Sons Inc.

Suggested Readings

- Hedge, A. (2016). Ergonomic Workplace Design for Health, Wellness, and Productivity. CRC Press.
- Stanton, N. A., Hedge, A., Brookhuis, K., Salas, E., & Hendrick, H. W. (2004). Handbook of Human Factors and Ergonomics Methods. CRC Press.
- Helander, M. (2005). A Guide to Human Factors and Ergonomics (2nd ed.). CRC Press.
- Shorrock, S., & Williams, C. (2016). *Human Factors and Ergonomics in Practice: Improving System Performance and Human Well-Being in the Real World.* CRC Press.
- DeChiara, J., Panero, J., & Zelnik, M. (2017). *Time-saver standards for interior design and space planning* (2nd ed.). McGraw-Hill Education.
- Neufert, E., & Neufert, P. (2019). Architects' data (5th ed.). John Wiley & Sons.

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DISCIPLINE SPECIFIC ELECTIVE COURSE

DSE HH 7E2: ADVANCED INTERIOR DESIGN

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &	Credit s	Credi	t Distribu Cours	tion of the e	Eligibility Criteria	Pre- requisite of
Code		Lectu re	Tutor ial	Practica I		the Course (if any)
Advanced Interior Design DSE HH 7E2	4	2	0	2	Studied Semester 6	Studied Space Design & Sustainability DSC HH 617

Learning Objectives

- To gain knowledge of advanced interior design principles elements.
- To apply their knowledge to design functional and aesthetically pleasing interior spaces.
- To critically analyze and evaluate design solutions.

Learning Outcomes

- Comprehend the principles and practices of interior design.
- Gain knowledge and necessary skills to design functional, aesthetically pleasing, and sustainable interior spaces.
- Analyze and evaluate design solutions, considering essential interior design elements.
- Engage in creative thinking and problem-solving abilities in the context of interior design.
- Get into entry-level positions in the interior design industry.

SYLLABUS OF DSE HH 7E2

THEORY (Credits 2; Hours 30)

UNIT I: INTERIORS AND ITS CONSTRUCTION

12 Hours

This unit explores the essential elements of interior finishes and building services, focusing on their construction, types, materials, and applications.

- Partition, paneling and false ceiling
 - o Construction of paneling
 - Types of Panelling full partition, part partition, contruction of partitions
 - o Materials used for paneling-ply, glass, gypsum, P.O.P, partition types
- Flooring
- Sanitary ware

- o Various types of sanitary ware and their use
- o Types of layouts concepts in modern day toilet interiors
- o Materials & finishes colour, texture & pattern.
- Lighting
 - Different types of lighting for interiors and exteriors
 - Lighting fixtures

UNIT II: BASICS OF FURNITURE CONSTRUCTION AND FURNISHINGS

10 Hours

This unit explores the fundamental principles of furniture design and construction, encompassing measurement systems, furniture construction techniques, finishing processes and upholstery.

- Measurement systems
- Types of Furniture and its Construction
- Types of finishes and preparation of finishing specific to Furniture Materials
- Upholstry materials Types and Selection

UNIT III: PROJECT ESTIMATION

08 Hours

This unit explores the key aspects of project estimation including estimation, budgeting, proposals, tenders, record keeping and filing.

- Specifications of materials
- Estimating & budgeting: Types of cost estimations and preparing estimates and budgets
- Proposals & tenders
- Implementation of plan of work and meeting deadlines

PRACTICAL (Credits 2; Hours 60)

- Floor plan of Studio apartment/ Bedroom/ Living room with elevation plan/ section plan of the same; Create 3D views of the plans (Manual/CAD)
 30 Hours
- 2. Preparation of a ceiling plan

06 Hours

3. Preparation of wall panelling/partition.

04 Hours

4. Preparation of electrical layout plan.

- 06 Hours
- 5. Preparation of plumbing layout plan indicating various fittings and fixtures of water supply and sanitary installations. **06 Hours**
- 6. Survey on concepts in modern day interiors materials & finishes **OR**

06 Hours

- 7. Create a mood board based on a style/ theme for interior designing of a selected area; create a setup for the same.
- 8. Create a portfolio of the interior design plans made in class

02 Hours

Essential Readings

- Kennedy, J. (2021). Launch Into Interior Design: A Beginner's Guide to the Industry. Kennedy Literary Agency.
- Ramstedt, F. (2020). The Interior Design Handbook. Particular Books.

- Leslie, F. (2000). *Designs for the 20th Century Interiors*. Victoria & Albert Museum.
- Ching, F. D. K. (2015). *Architecture: Form, Space and Order* (4th ed.). New Jersey: John Wiley & Sons Inc.
- Poore, J. (1995). *Interior Color by Design: A Design Tool for Architects, Interior Designers, and Homeowners*. Betterway Books.

Suggested Readings

- Pile, J. (2012). *Interior Design: A Comprehensive Guide*. Harry N. Abrams, Inc.
- Grimley, C., & Love, M. (2018). *The Interior Design Reference & Specification Book Updated & Revised: Everything Interior Designers Need to Know Every Day.*Rockport Publishers Incorporated.
- Diamonstein-Spielvogel, B., & Diamonstein, B. (1982). *Interior Design, the New Freedom*. Rizzoli International Publications.
- DeChiara, J., Panero, J., & Zelnik, M. (2017). *Time-saver standards for interior design and space planning* (2nd ed.). McGraw-Hill Education.
- Neufert, E., & Neufert, P. (2019). Architects' data (5th ed.). John Wiley & Sons.

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DISCIPLINE SPECIFIC ELECTIVE COURSE

DSE HH 7E3: RESOURCES AND SUSTAINABLE DEVELOPMENT

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
Couc		Lecture	Tutorial	Practical		(if any)
Resources and Sustainable Development DSE HH 7E3	4	2	0	2	Studied Semester 6	NIL

Learning Objectives

- To build an inter-disciplinary perspective on understanding environmental concerns, sustainable development and its challenges.
- To familiarize students with current debates and perspectives with respect to sustainable development.
- To familiarize students with the concepts of sustainable resource management.
- To develop skills and competencies amongst students with regard to energy, water and waste management.

Learning outcomes

- Build an understanding of environmental concerns, sustainable development and its challenges.
- Understand the concept of resources and developmental issues with respect to sustainable development.
- Develop skills in sustainable resource management.

SYLLABUS OF DSE HH 7E3

THEORY (Credit 2; Hours 30)

UNIT I: Introduction to Sustainable Development

9 Hours

This unit introduces the concept, need, principles, and goals of sustainable development, along with key global milestones and initiatives.

- Concept of sustainable development
- Need, objectives and principles of sustainable development
- National and international milestones, initiatives, summits and protocols

• Sustainable Development Goals (SDGs)

UNIT II: Resources and Developmental Issues

9 Hours

This unit explores environmental challenges, resource consumption, sustainable resource management, green practices, and green building rating systems.

- Environmental concerns, population explosion, urbanization, globalization, economic development, ecological footprint, carbon footprint
- Perspectives in resource consumption
- Sustainable management of key resources: Land, green cover, water, air, waste
- Sustainable practices by industry, CSR initiatives
- Green buildings and green building rating systems

UNIT III: Sustainable Resource Management

12 Hours

This unit covers sustainable management of energy, water, waste, and air through strategies like energy auditing, rainwater harvesting, and air quality monitoring.

- Energy management star labelling, energy auditing, renewable energy
- Water management Rain water harvesting- Calculation of rainwater harvesting potential, water auditing, waste water recycling, water testing
- Waste management Waste to energy plants, waste to wealth
- Air management Air quality, AQI

PRACTICAL (Credit 2; Hours: 60)

UNIT I: SUSTAINABLE DEVELOPMENT INITIATIVES

- Case studies on sustainable initiatives/CSR initiatives by industry
- Creation of awareness generation material for issues related to sustainable development
- Organizing events/competitions to commemorate important environment related days/ Current issues related to environment and sustainable development
- Calculation of ecological and carbon footprint using various applications and websites
- Case studies on green buildings

UNIT II: ENERGY MANAGEMENT

- Understanding electricity bills: components and calculations
- Understanding BEE star labels as an initiative towards sustainable energy consumption
- Energy auditing for sustainable energy management
- Portfolio/Survey on renewable energy products available in the market

UNIT III: AIR, WATER AND WASTE MANAGEMENT

• Air/noise/water testing, AQI applications and websites

- Green modes of transportation, E-vehicles: components and calculations
- Composting for sustainable waste management
- Case studies on waste management

Essential Readings

- Thakur, B., Thakur, R. R., Chattopadhyay, S., & Abhay, R. K. (Eds.). (2023). Resource management, sustainable development and governance: India and international perspectives. Springer.
- Prasad, R., Jhariya, M. K., & Banerjee, A. (2021). Advances in sustainable development and management of environmental and natural resources: Economic outlook and opinions. CRC Press, Taylor & Francis Group.
- Goel, S. (Ed.). (2016). *Management of resources for sustainable development*. Blackswan Publications.
- Somayaji, G., & Somayaji, S. (2009). Environmental concerns and sustainable development: Some perspectives from India. TERI Publication.
- Sundar, I. (2006). *Environment and sustainable development*. APH Publishing Corporation.

Suggested Readings

- Patel, B. N., & Nagar, R. (2018). Sustainable development and India. Oxford University Press India.
- Filho, W. L., Rogers, J., & Raniga, U. I. (Eds.). (2018). Sustainable development research in the Asia-Pacific region: Education, cities, infrastructure and buildings (World Sustainability Series). Springer.
- UN Millennium Project. (2005). *Innovation: Applying knowledge in development*. Science, Technology and Innovation Task Force Report.
- World Bank. (2006). Enhancing agricultural innovation: How to go beyond the strengthening of research systems. World Bank: Agriculture and Rural Development.

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DISCIPLINE SPECIFIC ELECTIVE COURSE

DSE HH 7E4: PROJECT 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
		Lecture	Tutorial	Practical		(if any)
Project Management DSE HH 7E4	4	2	0	2	Studied Semester 6	NIL

Learning Objectives

- To impart an understanding of the conceptual framework, scope and importance of project management
- To build proficiency in developing and managing projects

Learning Outcomes

- Develop an understanding of project management, role of project manager and organizational structure
- Comprehend the range, scope, and complexity of contemporary project management tools and techniques
- Acquire skills to design and manage projects

SYLLABUS OF DSE HH 7E4

THEORY (Credits 2; Hours 30)

UNIT I: Introduction to Project Management

12 Hours

This unit covers scope and importance of project selection, planning, budgeting, risk mitigation and management

- Project Selection and Planning
- Cost Estimation
- Budgeting
- Risk Management

UNIT II: The Project Manager

6 Hours

This unit examines role, characteristics, skills and ethics of a project manager.

• Role and characteristics

- Ethics
- Conflict Management

UNIT III: Project Monitoring and Control

12 Hours

This unit focuses on contemporary professional practices in project management including project scheduling, resource allocation, leveling, auditing and ensuing success.

- Scheduling
- Resource allocation
- Leveling
- Auditing and termination
- Project success

PRACTICAL (Credit 2; Hours 60)

- 1. Project Planning and Selection
- 2. Portfolio Optimization
- 2. Calcadulina
- 3. Scheduling
- 4. Cost Management
- 5. Resource Management: Resource Allocation, Resource Levelling
- 6. Project Evaluation
- 7. Request for Proposal (RFP)

The above practicals will be conducted using latest tools like PRIMA VERA, MS Project etc.

Essential Readings

- Project Management Institute. (2021). A Guide to the Project Management Body of Knowledge- PMBOK Guide-Seventh Edition. American National Standard, ANSI/PMI99-001-2021
- Project Management Institute. (2013). A Guide to the Project Management Body of Knowledge- 5th Edition. American National Standard, ISBN: 9781935589679
- Meredith J. R., Shafer S. M., and Mantel S. J. Jr. (2021). *Project Management: A Managerial Approach*, (11th ED.). John Wiley & Sons Inc.
- 4. Jain, G.L. (2014). *Project Management: A Managerial Approach*. DND Publications, ISBN-10. 9380929765 · ISBN-13. 978-9380929767

Suggested Readings

- Erickson T., Khatri, P.V. (2015). *Project Management*. Global Vision Publishing House, ISBN-13: 978-9381695418
- Horine, G. (2017). Project management absolute beginner's guide (4th ed.). Que Publishings
- Nagarajan, K. (2010). *Project Management (6th ed.)*. New Age International Pvt. Ltd.
- Prasanna and Chandra. (2017). *Projects: Planning, Analysis, Selection, Financing, Implementation, and Review.* McGraw Hill Education, ISBN-13 978-9332902572
- Spinner, P. (1991). *Elements of Project Management: Plan, Schedule, and Control.* Prentice Hall, USA, ISBN 13: 9780132532464

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