UNIVERSITY OF DELHI

CNC-II/093/1/EC-1275/25/17

Dated: 31.07.2025

NOTIFICATION

Sub: Amendment to Ordinance V

(ECR 07-8/ dated 23.05.2025)

Following addition be made to Annexure-II-A to the Ordinance V (2-A) of the Ordinances of the University;

Add the following:

The syllabi of following Departments under Faculty of Science based on Postgraduate Curriculum Framework 2024 are notified herewith for the information of

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aıı	concerned	2.9

all concerned :.	
Geology	M.Sc. Geology - Annexure-1
ACBR	M.Sc. and M.ScPh.D. Combined Degree Programme in Biomedical Sciences - Annexure-2
Home Science	M.Sc. Human Development and Childhood Studies Coursework Track only - Annexure-3 (b) Generic Elective - Annexure-4
	 2. M.Sc. Resource Management and Design application (a) Coursework Track only - Annexure-5 (b) Generic Elective - Annexure-6
	3. M.Sc. Fabric and Apparel Science(a) Coursework Track only - Annexure-7(b) Generic Elective - Annexure-8
	4. M.Sc. Development Communication and Extension (a) Coursework Track only - Annexure-9 (b) Generic Elective - Annexure-10
	5. M.Sc. Food and Nutrition (a) Coursework Track only - Annexure-11 (b) Generic Elective - Annexure-12

REGISTRAR

DEPARTMENT OF HUMAN DEVELOPMENT AND CHILDHOOD STUDIES 2-Year MSc Curriculum under NEP

COURSEWORK TRACK

DSC				DSE				SBG	C			Dissertation/Academic Project/Entrepreneurshi p
Paper Title		Credit		Paper Title		Credi	it	Paper Title		Credi	it	
(4 Credits	Dis	stribut	io	(4 Credits	Distributio		ıtio	(2 Credits	Distributio			
each)	n	n		each)	n			each)	n			
	Th	Tu	Pr		Th	Tu	Pr		Th	Tu	Pr	
				SEMESTER	I		•		•			
Pick Al	11 3			Pick An	y 2			Pick A	ny 1			
DSC HDCS 101:				DSE HDCS 101:	3	1	0	SBC HDCS 101:	0	0	2	
Theories of Human	3	1	0	Diversity,				Content				
Development				Disadvantage and				Development for				
				Equity				Early Childhood				
								Care and				
								Education				NIL
DSC HDCS102: Early				DSE HDCS 102:	2	0	2	SBC HDCS 102:	0	0	2	-
Childhood Care	2	0	2	Development Across				Resource				
and Education				the Life-Span				Development for				
(ECCE)				1				Disability				
DSC HDCS 103:				DSE HDCS 103:	3	1	0		0	0	2	
Developmental	2	0	2	Sociology of								
Disabilities				Childhood								
					3	1						
				SEMESTER	II							

Pick Al	13		Pi	ck Any 2			Pick A	ny 1			
DSC HDCS 201: Social			DSE HSC 201:	2	0	2	SBC HDCS 201:	0	0	2	
Psychology for Human	2	0	2 Advanced				Working with				
Development			Research				Vulnerable				
			Methods in Hom	ie			Families and				NIL
			Science				Community				

				DSE H	DCS 202:		3	1	0	SBC HDCS 202:	0	0	2
DSC HDCS 202:	3	1	0	Law,	Policy	and				Parenting and Early			
Education for				Prograi	mmes	for				Intervention			
Human				Childre	en								
Development													
DSC HDCS 203:				DSE H	DCS 203:						0	0	2
Assessment and				Anthro	pology of								
Evaluation in Human	2	0	2	Childho	ood								
Development													

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				S	EME	STEF	RIII						
Pick All	2			Pick Any	3			Pick Any 1					Dissertation
DSC HDCS 301: Counselling for Human Development	2		2	DSE HSC 301: Advanced Statistics in Home Science	3	1	0	NIL		0	0	0	
DSC HDCS 302: Media and Human Development	2	0	2	DSE HDCS 302: Gender, Justice and Empowerment	2	0	2						6 Credits
				DSE HDCS 303: Wellbeing Across the	2	0	2						

				Life- span									
				SEMESTER I	V								
Pick All	2			Pick Any	3				Pick An	y 1			
DSC HDCS 401:				DSE HDCS 401: Child	2	0	2	NIL		0	0	0	
Research and Practices	2	0	2	Development and									
in ECCE				Indian Knowledge									
				systems									6 Credits
DSC HDCS 402:				DSE HDCS 402:	2	0	2			0	0	0	
Research and Practices	2	0	2	Organization and									
in Developmental				Management of									
Disabilities				Programmes for Adults									
								I					1
				DSE HDCS 403:	2	0	2			0	0	0	
				Childhood and									
				Adolescence									
				Across Ecological									
				Settings									
										0	0	0	

Semester I

DISCIPLINE SPECIFIC CORE COURSE DSC HDCS 101: THEORIES OF HUMAN DEVELOPMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial		(if any)	
Theories of Human Development	4	3	1	0	As per admission criteria	Nil

Learning Objectives

- To recognise the philosophical foundations of theorizing and the process of theory construction in human development
- To examine major theories of human development and understand their application and limitations
- To explore Indigenous perspectives on human development and emerging interdisciplinary influences

Learning Outcomes

The students would be able to:

- Demonstrate an understanding of various philosophical underpinnings of theorizing and theory construction
- Explain major developmental theories and their applications
- Describe indigenous and culturally specific theories of human development and integrate interdisciplinary insights.

THEORY (Credits 3; Hours 45)

UNIT I: Theory, Constructs, and Phenomena

8 Hours

This unit emphasizes conceptual clarity and the philosophical foundations of theory construction.

- Theorizing and its philosophical underpinning
- Links between phenomena, theory, and method
- Deductive and inductive approaches in theory construction

UNIT II: Theories of Human Development – Classical and Contemporary 12 Hours

This unit highlights the major theoretical frameworks shaping our understanding of human development.

• Evolutionary theory, Psychosexual theory, Cognitive-Developmental theory

- Learning theory, Social Role theory, Life-course theory
- Psycho-social theory, Dynamic Systems theory, Constructivist perspective
- Vygotsky's socio-cultural perspective, Theory-of-mind

UNIT III: Positive and Humanistic Perspectives in Development 10 Hours

This unit focuses on contemporary and humanistic approaches that emphasize well-being and self-development.

- Perspectives from Positive Psychology
- Humanistic Theories and their applications
- Interdisciplinary and cross-theory learning

UNIT IV: Cultural Context and Indigenous Theories

15 Hours

This unit deals with the influence of cultural perspectives and indigenous frameworks in understanding human development.

- Theories of self in the Indian context
- Indigenous theories of human development
- Emerging trends in contemporary cultural research

TUTORIAL

(Credit 1; Hours 15)

- Critiquing a Theory: Identifying strengths, limitations, and alternative perspectives.
- Psychobiography of a Theorist
- Theoretical Applications in Practice: Linking theories to policy, education, and intervention.
- Contemporary and Emerging Theoretical Directions: Integrating modern research trends.

Essential Readings

- Miller, P. (2011). Theories of Developmental Psychology, USA: Worth Publishers.
- Paranjpe, A.C. (2002). Self and Identity in modern Psychology and Indian thought (Path in Psychology). New York: Springer.
- Crain, W. (2010). *Theories of development: Concepts and applications* (6th ed.). Pearson.
- Green, M. G., & Piel, J. A. (2010). *Theories of human development: A comparative approach*. Routledge.
- Kegan, R. (2018). *The evolving self: Problem and process in human development*. Harvard University Press.
- Narvaez, D. (2014). *Neurobiology and the development of human morality: Evolution, culture, and wisdom.* W.W. Norton.
- Shiraev, E., & Levy, D. (2021). *Cross-cultural psychology: Critical thinking and contemporary applications* (7th ed.). Routledge.

Suggested Readings

- Frosh, S. (2012). A brief introduction to psychoanalytic theory. Palgrave Macmillan.
- Frazer, J.G. (2004). The Golden Bough: A study in magic and religion. USA: Cosmo.

- Geertz, C. (1993). The interpretation of cultures. New York: Basic Books.
- Heckhausen, J., & Heckhausen, H. (2018). *Motivation and action* (3rd ed.). Springer.
- Heyes, C. (2018). *Cognitive gadgets: The cultural evolution of thinking*. Harvard University Press.
- Kevill-Davies, S. (1991). *Yesterday's children: the antiques and history of childcare*. England: Antique Collectors' Club.
- Muthukrishna, M., & Henrich, J. (2019). A problem in theory. *Nature Human Behaviour*, 3(3), 221–229. https://doi.org/10.1038/s41562-018-0522-1
- Pattanaik, D.D. (2006). *Myth=Mithya: A handbook of Hindu mythology*. New Delhi: Penguin.
- Ramanujan., A.K. (1997). Flowering tree: And other oral tales from India. USA: Viking.
- Ramanujan., A.K. (1994). Folk tales from India. India: Penguin Books.
- Rogoff, B. (2003). The cultural nature of Human Development. USA: OUP.
- Russel, B. (2004). *History of Western philosophy*. London: Routledge.
- 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.
- Siegler, R. S., & Alibali, M. W. (2005). Children's Thinking (4th Edition). (Chapter 1. An Introduction to Children's Thinking; Chapter 4. Socio-cultural theories). Saddle River, NJ: Prentice-Hall.

DISCIPLINE SPECIFIC CORE COURSE DSE HDCS 102: EARLY CHILDHOOD CARE AND EDUCATION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
Early	4	2	0	2	As per	Nil
Childhood Care					admission	
and Education					criteria	
(ECCE)						

Learning Objectives

- To explore the significance, historical development, core principles, and contemporary positioning in Early Childhood Care and Education
- To evaluate a theoretically guided curricular framework for effective implementation of inclusive and contextually sensitive early childhood development programs.
- To develop skills for assessing, supervising, and evaluating ECCE programs

Learning Outcomes

The students will able to

- Explain the significance of ECCE and the impact of policies on current educational practices and future trends.
- Apply key theories to curriculum and pedagogy and design inclusive and integrated learning experiences
- Demonstrate the use of assessment tools, documenting activities, and supervise ECCE programs

THEORY

(Credits 2; Hours 30)

UNIT I: Emergence and Foundations of Early Childhood Care and Education (ECCE) 6 Hours

This unit lays thrust on the historical evolution, significance, and policy frameworks of ECCE.

- Global and Indian history, trends, and achievements in ECCE
- Significance of ECCE
- Core concepts, principles, rationale, and policy for ECCE
- Current research and projected trends

This unit emphasizes theoretical foundations and socio-cultural approaches guiding ECCE curriculum.

- Early childhood development theories and socio-cultural influences
- Play, development, and learning in ECCE
- An integrated pedagogy and principles for curricular framework in ECCE

UNIT III: Planning, Resources, and Inclusion in ECCE

8 Hours

This unit focuses on curriculum planning, professional competencies, and inclusive practices.

- Activities, resources, and planning of spaces for curricular goals
- Essential skills and competencies for ECCE professionals
- Approaches and challenges in providing inclusive community-based services in diverse contexts
- RTE and implications for ECCE

UNIT IV: Assessment, Supervision, and Evaluation of ECCE Projects 8 Hours

This unit deals with frameworks, tools, and documentation for quality assurance in ECCE programs.

- Analytical framework and resources for effective programme implementation
- Tools for individual and group assessment and evaluation of ECCE settings
- Documenting and maintaining records as a source of knowledge base for ECD
- Capacity building of professionals and partnerships with parents and community

PRACTICAL (Credit 2, 60 Hours)

- Recording individual children's physical motor, language, intellectual, and social-emotional development.
- Observations to gauge adult-child interactions to facilitate expression, communication and curiosity in ECCE programs
- To observe existing care programs (crèche, daycare) and get familiarized with guidelines following contemporary and prevalent policies.
- Identifying and creating aids for play and joyful learning
- Plan and implement developmentally appropriate, child-centered activities that are sensitive to diverse contextual needs
- Design learning environment for early childhood program
- Plan curriculum for a week and execute it
- Learning ways to track and record children's progress and communicating with parents
- Building skills to assess the quality of programs with sensitivity to ecological contexts
- Understanding state interventions such as ICDS, meal services, and health services
- Visits to select ECCE centers
- Workshops on the use of various art forms for and with children
- Organize a workshop/exhibition involving parents of preschool children

Essential Readings

- Ainsworth, M. D., & Bell, S. M. (2012). *The origins of early childhood education and the role of attachment theory in shaping ECCE practices*. Oxford University Press.
- Frost, N., Wortham, S. C., & Reifel, S. (2013). *Play and development in early childhood education: Exploring theory, practice, and curriculum design.* Pearson Education.
- Gonzalez-Mena, J. (2015). Foundations of early childhood education: Teaching children in a diverse society. McGraw-Hill Education.
- Gopalan, M., & Sinha, R. (2014). *Childhood education in India: Policy, practice, and global trends*. Oxford University Press.
- Jain, S., & Raghunathan, R. (2019). *Inclusive approaches to early childhood education in India: Policy frameworks and implementation*. Sage Publications.
- Kaur, R. (2016). Reconceptualizing early childhood education in the Indian context: Policy, practice, and cultural influences. Cambridge University Press.
- Sharma, A., & Kapoor, A. (2017). Reconceptualizing assessment in early childhood education: International and Indian perspectives. Springer.

Suggested Readings

- Cannella, G. S., & Viruru, R. (2004). Childhood and postcolonization:
 Power, education, and contemporary practice. New York:

 RoutledgeFalmer.
- Carr, M. (2001). Assessment in Early Childhood Settings. London: SAGE Publications.
- Datta, V. (1995). Home away from home: family daycare in India. In *Suraksha: Early Childhood Care and Education*. Madras, India: MS Swaminathan.
- Gopal, A. K. (1998). *Creche services in India- an evaluation*. New Delhi, India: NIPCCD.
- Hutt, S. J., Tyler, S., Hutt, C., & Foy, H. (1989). *Play, exploration and learning*. London: Routledge.
- Kaul, V. (2002). Early childhood care and education. In R. Govinda (Ed.), *India Education Report: A profile of Basic Education* (pp. 23-34). NIEPA: Oxford University Press.
- Meenai, Z., Sen, R.S. & Firdos, S.(2016). Quality Enhancement of Preschool Education Component of ICDS through Implementation of Restructured Curriculum in Three States. In Z. Meenai,(ed.) Early Childhood Development Knowledge Series - II (Early Learning: Perspectives to Early Childhood Education) pp191-202. New Delhi: Global Books Organisation, ISBN: 978-93-80570-97-6
- Ministry of Women and Child Development. (2014). *National ECCE Curricular Framework*. MoWCD, Government of India: New Delhi
- Ministry of Women and Child Development. (2014). *Quality standards for ECCE*, MoWCD, Government of India: New Delhi
- Swaminathan, M. (1985). Who cares? A study of childcare facilities for low-income working women in India. New Delhi, India: Centre for Women's Development Studies.
- Sharma, A., Sen, R. S. & Gulati, R. (2008). Early Childhood Development Policy and Programming in India, *International Journal of Early Childhood Policy Change*,40 (2), 65-84.
- Sen, R.S. (2016). Literacy in Pre-primary and Class 1:Processes of Teaching and Learning in a Trilingual Environment. In N. Rao (ed.) *Disciplinary Dialogues on Social Change: Gender, Early Childhood and Theatre (pp 93-130)*. Academic Foundation. New Delhi. ISBN 13:978-93-327-0348-3

DISCIPLINE SPECIFIC CORE COURSE DSE HDCS 103: DEVELOPMENTAL DISABILITIES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
Developmental Disabilities	4	2	0	2	As per admission criteria	Nil

Learning Objectives

- To develop a critical understanding of disability frameworks through intersectional perspectives including policy and legal dimensions.
- To recognize classification, diagnostic, and assessment approaches to disabilities
- To analyze the role of family, community, and education systems in fostering inclusive environments

Learning Outcomes

The students would be able to:

- Demonstrate a comprehensive understanding of disability concepts
- Learn diagnostic and assessment tools effectively to identify disabilities and recommend appropriate assistive interventions.
- Explain inclusive strategies in education, family, and community-based programs

THEORY

(Credits-2; Hours 30)

UNIT I: Conceptual Foundations of Disability

6 Hours

This unit lays thrust on the conceptual frameworks to understand disability, intersectionality and the policies

- Concepts and evolving definitions
- Historical and contemporary perspectives and frameworks
- Disability Statistics and Epidemiology
- Intersectionality in Disability Examining gender, caste, and socio-economic dimensions of disability
- Disability and Global Human Rights Frameworks UNCRPD, SDGs, and international and National policy approaches

UNIT II: Types of Disabilities and Diagnostic Approaches

8 Hours

This unit highlights the types of disabilities, screening, and diagnostic approaches

- Definitions, classification, aetiology, identification related to disabilities as defined by the Rights of Persons with Disabilities Act 2016
- Assessment methods and diagnostic tools
- Advances in Disability Screening and Assistive Technology for Early Detection

UNIT III: Care and Intervention: Role of family and Community 8 Hours

This unit focuses on the role of family and community in care and intervention approaches

- Prevention of disabilities
- Child and the family, parents, siblings, grandparents & significant others; family empowerment
- Role of community
- Care and Early intervention and therapeutic approaches

UNIT IV: Inclusive Education

8 Hours

This unit lays thrust on the concept of inclusion and the strategies for inclusive learning environments

- Definition and Perspectives on Inclusion
- Inclusive education: Role of school, curricular adaptations, teaching strategies, materials and resources; special and inclusive education
- Universal Design for Learning (UDL) Principles and applications in diverse learning spaces
- Role of AI and Digital Technology in Disability Inclusion and Learning

PRACTICAL

(Credits 2; Hours 60)

- Assessment of children and adolescents for and with disability using observations and children's play, screening schedules, and psychometric measures
- Assessment of institutions for children and adolescents with disability
- Individual education plans (IEPs) and their use with children
- Special education and inclusive education techniques
- Conducting intervention activities with a child/ an adolescent
- Case profile of a child/an adolescent with disability.
- Assessing/Surveying various public spaces for Universal Design Principles for Inclusion Essential Readings
 - Alur, M., & Timmons, V. (2019). *Inclusive education across cultures: Crossing boundaries, sharing ideas*. SAGE Publications India.
 - Banerjee, R., & Mukherjee, A. (2021). *Disability inclusion and inclusive education in India: Policies, practices, and future directions.* Routledge India.
 - Bhattacharya, T. (2018). *Disability, gender and the trajectories of power in India: Intersectionality in practice*. SAGE Publications India.
 - Dutta, A. (2019). Disability rights and law in India. Oxford University Press.

- Ghai, A. (2015). *Rethinking disability in India*. Routledge India.
- Government of India. (2016). *The Rights of Persons with Disabilities Act, 2016*. Ministry of Social Justice and Empowerment.
- Kalyanpur, M. (2021). *Development, education, and learning disability in India: Critical perspectives.* Routledge India.

Suggested Readings

• Bailey, M. & Wolery, M. (1992). Teaching Infants and Preschoolers with Disabilities.

New York: Macmillan.

• Baquer, A. (1994). Disabled, Disablement, Diabolism. New Delhi: Voluntary Health

Association of India.

- Dempsey, I., Foreman, P., Sharma, N., Khanna, D., & Arora, P. (2001). Correlates of Parental Empowerment in Families with a Member with a Disability in Australia and India. Developmental Disabilities Bulletin, 29(2), 113-131.
- Dunst, C. J. (1985). Rethinking Early Intervention. Analysis and Intervention.

Developmental Disabilities, 5, 165-201.

- Hardman, M.L., Drew, C.J., and Egan, M.W. (2005). Human Exceptionality: Society, School and Family. Boston: Allyn and Bacon.
- Johnstone, C. J., & Chapman, D. W. (2018). *International perspectives on inclusive education: Foundations, practices, and issues*. Emerald Publishing.
- Karanth, P. and Rozario, J. (2003). Learning Disabilities in India. New Delhi: Sage.
- Madaan, P. (2017). Assistive technologies for persons with disabilities: Innovations and interventions. Springer.
- Mehrotra, N., & Bhardwaj, A. (2020). *Disability, inclusion, and accessibility in India:* Re-thinking working conditions and equity. Routledge.
- Mittler, P. (2015). Education, equality and human rights: Issues of gender, 'race', sexuality, disability and social class. Routledge.
- Munford, R. and Sanders, J. (Eds.) (2003). Making a Difference in Families: Research that Creates Change. New South Wales, Australia: Allen & Unwin.
- Nambissan, G. B. (2021). *Disability, education, and society in India: Issues of inclusion and equity*. Orient Blackswan.
- Pandey, R. S., & Advani, L. (1996). Perspectives in Disability and Rehabilitation. New Delhi: Vikas Publishing House.
- Rao, I. (2018). *Disability inclusion in education: Best practices and research insights*. National Institute for the Empowerment of Persons with Visual Disabilities (NIEPVD).
- Rao, I. (2018). *Disability inclusion in education: Best practices and research insights*. National Institute for the Empowerment of Persons with Visual Disabilities (NIEPVD).
- Singal, N. (2017). Education and disability in the global south: New perspectives from India and Bangladesh. Bloomsbury Academic.
- UNESCO. (2020). *Embracing diversity: Lessons from inclusive education initiatives in South Asia*. United Nations Educational, Scientific and Cultural Organization.
- Ysseldyke, J.E and Algozzine, B. (1998). Special Education: A Practical Approach for Teachers. New Delhi: Kanishka.

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HDCS 101: DIVERSITY, DISADVANTAGE AND EQUITY

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credi	t Distributi	on of the	Eligibility	Pre-requisite
&			Course		Criteria	of the Course
Code		Lecture Tutorial		Practical		(if any)
Diversity,	4	3	1	0	As per	Nil
Disadvantage					admission	
and Equity					criteria	

Learning Objectives

- To critically analyze the concepts of diversity, disadvantage, exclusion, and equity with a specific focus on Indian societal frameworks.
- To explore the intersectional nature of disadvantage and its impact
- To examine pathways to inclusion, equity, and empowerment through policies and rights-based approaches

Learning Outcomes

The students would be able to:

- Explain key concepts such as diversity, disadvantage, exclusion, and equity, and their application
- Evaluate the impact of inequalities and the intersectional nature of disadvantage and its implications.
- Describe and assess key government policies and institutional strategies that promote inclusion and equity and propose evidence-based recommendations

THEORY (Credits 3; Hours 45)

UNIT I: Examining Diversity, Disadvantage, and Equity

10 Hours

This unit focuses on developing a foundational understanding of social diversity, systemic disadvantage, and frameworks of exclusion and equity in childhood.

- Concepts of diversity, disadvantage, exclusion, and equity
- Situation analysis of children in India
- Human Development Indices (HDI) and Multidimensional Poverty Index

UNIT II: Structural Inequalities and Intersectional Disadvantage 15 Hours

This unit highlights the structural and intersectional nature of inequality and its implications.

- Economic, social, and spatial inequality
- Intersectionalities and multidimensional disadvantage: Gender, Scheduled Castes,

Scheduled Tribes, Other Backward Classes (OBC), socio-religious-ethnic minorities, migrant communities, persons with disabilities, and urban deprived groups

• Impact of disadvantage: Psychological, educational, and social implications

UNIT III: Policies, Rights, and Pathways to Inclusion

10 Hours

This unit focuses on the policy frameworks, legal protections, and institutional strategies for fostering inclusion and equity.

- Government policies and programs on diversity and equity
- Rights-based approaches: Intersections of legal protections, cultural practices, and global conventions
- Institutional strategies for equity and inclusion

UNIT IV: Empowerment and Transformative Approaches

10 Hours

This unit emphasizes empowerment frameworks, participatory practices, and strategies for building inclusive societies.

- Community and grassroots approaches to equity and inclusion
- Role of education, advocacy, and civil society in empowerment
- Case studies of successful inclusion models and best practices

Tutorial (1 Credit; 15 Hours)

- Analysing data/photos / descriptions/narratives/ reports on diverse environments and everyday experiences
- Presentations on policies and programmes and their impact
- Discussions on case studies impact of multidimensional disadvantage
- Mapping inequalities using secondary data

Essential Readings

- Drèze, J, & Sen, A. (2013). *An uncertain glory: India and its contradictions*. Princeton, NJ: Princeton University Press.
- Bourdillon, M. (2017). *The experience of childhood in South Asia: Theoretical and empirical perspectives*. Cambridge University Press.
- Gopalan, M., & Sinha, R. (2014). *Childhood and inequality in India: Exploring the sociological dimensions*. Oxford University Press.
- Nambissan, G. B. (2013). *The right to education in India: Reflections on policy and practice*. Cambridge University Press.
- Centre for Equity Studies (2017). *India Exclusion Report, 2017*. New Delhi: Author
- Vikram, S., & Sharma, P. (2019). *Empowering marginalized children: Policies, practices, and the role of social institutions*. Oxford University Press.

Suggested Readings

- Govinda, R. (2013). *Who goes to school? Exploring exclusion in Indian education*. New Delhi: Oxford University Press.
- Nielsen, K., Fibiger, M., & Skoda, U. (Eds.). (2013). *Navigating Social Exclusion and Inclusion in Contemporary India and Beyond: Structures, Agents, Practices*. Anthem Press.
- Oomen, T.K. (2014). Social inclusion in independent India: dimensions and approaches. New Delhi: Orient Blackswan.
- Patel, S., & Mehta, M. (2018). *Disadvantage and social justice in education: A critical framework for understanding childhood inequality*. Palgrave Macmillan.
- Ramachandran, V. (2018). *Inside Indian Schools: The Enigma of Equity and Quality.* Oxon: Routledge
- Raman, V. (2000). Politics of Childhood, EPW
- Verma, G K., Bagley, C; Jha, M. (2007). *International Perspectives on Educational Diversity and Inclusion*. Abingdon, Oxon: Routledge.

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HDCS 102: DEVELOPMENT ACROSS THE LIFE-SPAN

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
Development Across the Life-Span	4	2	0	2	As per admission criteria	Nil

Learning Objectives

The students would be able to:

- To recognize the key concepts and processes guiding human development
- To critically comprehend the cultural and ecological influences on development in childhood years
- To evaluate the cultural and ecological influences on development in adulthood years

Learning Outcomes

The students would be able to:

- Learn developmental processes and concepts guiding human development
- Describe cultural influences on development in childhood years
- Discuss cultural and ecological influences on development in adulthood years

THEORY

(Credits 2.; Hours 30)

UNIT I: Historical and Conceptual Foundations of Developmental Psychology 8 Hours

This unit highlights the historical perspectives, key concepts, and epistemological foundations that guide human development.

- History and epistemologies of Developmental Psychology
- Key assumptions and issues in mainstream psychology: Universalism, developmentalism, linear progression, global norms, reductionism, epistemic injustice, difference, and deficit
- Basic assumptions for the study of development: Differentiation-integration, irreversible time
- Salient dimensions of study: Normality-variation, rigidity-plasticity, continuity-discontinuity, competence-performance, critical periods, and sex differences
- Life trajectories: Pathways, ruptures, and repairs in development, and developmental tasks
- WEIRD psychology: Models, methods, and limitations; Western bias and overstated scientific evidence
- Indigenous knowledge systems: Contextualizing human development

UNIT II: Pathways of Development Across Cultures – Early Years

8 Hours

This unit examines ecological and cultural dimensions of development during infancy and early childhood.

- Pathways of development: Examining the relevance of global models of development
- Ecological and cultural dimensions of development: Attachment, parenting, and models of care
- Autonomy and interdependence in traditional cultures
- Variations in learning and cognition: Limitations of standard parameters of assessing development
- Identity and self-development: Self-actualization and self-realization
- Infancy and Early Childhood: Theoretical perspectives, Development across domains Physical Motor, Language, Cognition, and Social-Emotional

UNIT III: Development During Middle Childhood and Adolescence

8 Hours

This unit focuses on developmental pathways and cultural perspectives during middle childhood and adolescence.

- Middle Childhood: Theoretical perspectives, Development across domains Physical Motor, Language, Moral, Cognition, and Social-Emotional
- Adolescence: Theoretical perspectives, Development across domains Physical Motor, Language, Moral, Cognition, and Social-Emotional

UNIT IV: Development During Adulthood and Aging

6 Hours

This unit explores development during adulthood, with emphasis on cultural influences and lifecourse perspectives.

- Young Adulthood: Theoretical perspectives, cultural context, developmental tasks, and development across domains Physical Motor, Language, Moral, Cognition, and Social-Emotional
- Middle Adulthood: Theoretical perspectives, cultural context, developmental tasks, and development across domains Physical Motor, Language, Moral, Cognition, and Social-Emotional
- Late Adulthood and Aging: Theoretical perspectives, cultural context, developmental tasks, and development across domains Physical Motor, Language, Moral, Cognition, and Social-Emotional

PRACTICAL (Credits 2; Hours 60)

- 1. Visit to understand institutional provisions for care and development of children; neonatal unit, paediatric ward, orphanage, crèche and day-care, rehabilitation
- 2. Practical assignments on each stage of development across childhood and domains
- 3. Case study of children and adults using mixed methods
- **4.** Design and implement a project using audio-visual technology to communicate developmental pathways to parents, teachers and students
- **5.** Design and implement a project using audio-visual technology to communicate developmental pathways to parents, teachers and students

Essential Readings

- Anandalakshmy, S. (2010). Through the lens of culture. Monographs, Chennai: Bala mandir Research Trust.
- Bhatia, S. (2017). Decolonizing psychology: Globalization, social justice, and Indian youth identities. Oxford University Press.
- Burman, E. (2017). Deconstructing Developmental Psychology. New York: Routledge.
- Burman, E. (2024). Child as Method: Othering, Interiority and Materialism. New York Routledge.
- Dalal, A., & Misra, G. (2010). The core and context of Indian Psychology.
 Psychology and Developing Societies 22, 1 (2010): 121–155, Sage Publications:
 New Delhi, DOI: 10.1177/097133360902200105In
- Funk, L., Scheidecker, G., Chapin, B., Schmidt, W. J., El Ouardani, C., Chaudhary, N. (2023). Feeding, bonding, and the formation of social relationships: Ethnographic challenges to attachment theory and early childhood interventions. Cambridge University Press.

Suggested Readings

- Henrich, J. (2020). The WEIRDest people in the World: How the West became psychologically peculiar and particularly prosperous. New York, NY: Farrar, Strauss & Stra
- Khan, S. (2024). Brave new words. New York, NY: Viking
- Misra, G. (Ed.). (2011). Handbook of psychology in India. Oxford University Press
- Misra, G., Sanyal, N., & De, S. (2021). Psychology in modern India: Historical, methodological, and future perspectives. Springer. ISBN 978-981-16-4704-8 ISBN 978-981-16-4705-5 (eBook). https://doi.org/10.1007/978-981-16-4705-5
- Nandy, A. (2009). The Intimate Enemy. New Delhi: OIP.
- Packer, M., & Development. Oxford Research
- Encyclopedia of Psychology. Retrieved 18 Oct. 2024, from https://oxfordre.com/psychology/view/10.1093/acrefore/9780190236557.001 . 0001/acrefore-9780190236557-e-581
- Rogoff, B., Coppens, A. D., Alcalá, L., Aceves-Azuara, I., Ruvalcaba, O., López, A., & Dayton, A. (2017). Noticing Learners' Strengths Through Cultural Research. Perspectives on Psychological Science, 12(5), 876-888. https://doi.org/10.1177/1745691617718355

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HDCS 103: SOCIOLOGY OF CHILDHOOD

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credi	t Distributi	on of the	Eligibility	Pre-requisite
&		Course			Criteria	of the Course
Code		Lecture	Tutorial	Practical		(if any)
Sociology of Childhood	4	3	1	0	As per admission criteria	Nil

Learning Objectives

- To examine the social and cultural construction of Childhood
- To interpret theoretical perspectives to understand sociology of childhood
- To learn about contemporary changing family settings, social structures, and processes
- To explore the impact of social change and global transformations on childhood

Learning Outcomes

The students would be able to:

- Demonstrate an in-depth understanding of childhood as a distinct stage and cultural construction of childhood
- Explain and critically analyze major theoretical frameworks of sociology of childhood
- Assess contemporary challenges facing children and families in a rapidly changing world
- Appraise and assess global transformations affecting childhood

THEORY (Credits 3; 45 Hours)

UNIT I: Conceptualizing Childhood

10 Hours

The unit lays thrust on the cultural construction of childhood as a distinct category, agency of childhood and intersectionalities.

- Emergence of childhood as a distinct social category
- Cultural construction of childhood across societies.
- Children as social actors: Agency and structure in everyday childhood experiences.
- Social stratification and intersectionalities in childhood

UNIT II: Theoretical foundations

(10 Hours)

This unit examines the theoretical approaches to understanding sociology of childhood

- Structural and Interpretivist Approaches
- The New Sociology of Childhood
- Feminist Perspectives
- Post-Structuralist and Power Perspectives

Unit III Childhood in Contemporary Contexts

(15 Hours)

The unit deals with the social changes in the contexts in which children grow up and their implications for children.

- The impact of social change on child-rearing practices.
- Key issues affecting contemporary families.
- Family transitions, including divorce, remarriage, and single-parent households.
- Shifting family structures and their implications for childhood.
- State, policy, and institutional influences on family life and child development.

Unit IV Global Transformations and the Future of Childhood

(10 Hours)

This unit focusses on the impact of global and digital changes on childhood and the future of childhood research

- Global childhoods: The impact of economic and cultural shifts.
- Children's rights and social movements: Advocacy, resistance, and participation.
- Digital childhoods: Social media, surveillance, and changing identities.
- Sociology of risk and childhood
- Future directions in the sociology of childhood: Emerging research agendas.

TUTORIAL

(Credit 1, 15 Hours)

- Discussions and Debate on agency of childhood and children as social actors
- Presentation on childhood in diverse contexts
- Narratives through a sociological lens
- Media and Popular culture analysis

Essential Readings

- Lareau, A. (2011). *Unequal Childhoods: Class, Race, and Family Life* (2nd ed.). University of California Press.
- Smart, C. (2013). *The Changing Experience of Childhood: Families and Divorce*. Polity Press.

- Montgomery, H. (Ed.). (2013). Local childhood, global issues (2nd Ed.). UK: The Policy Press.
- Livingstone, S., & Blum-Ross, A. (2020). *Parenting for a Digital Future: How Hopes and Fears about Technology Shape Children's Lives*. Oxford University Press.
- Munford, R. and Sanders, J. (Eds.) (2003). Making a Difference in Families: Research and Applications in India. New Delhi: Sage.
- Wells, K. (2015). Childhood in a Global Perspective (2nd ed.). Polity Press.
- Saraswathi, T.S., Menon. S., & Madan, A. (Eds.). (2018). Childhood in India: Traditions, trends and transformations. London: Routledge.

Suggested Readings

- Trawick, M. (1992). *Notes on love in a Tamil family*. University of California Press.
- Qvortrup, J. (1997). A voice for children in statistical and social accounting: A plea for children's right to be heard. In A. James, & A. Prout (Eds.), *Constructing and reconstructing childhood: Contemporary issues in the sociological study of childhood* (pp 85-103). Routledge.
- Corsaro, William A. (1997). The Sociology of Childhood. Pine Forge Press: Sage
- Qvortrup, J. (1999). Childhood and societal macrostructures: Childhood exclusion by default. Odense. macro-exclusion (psu.edu)
- James, A., & Prout, A. (Eds.). (1997). Constructing and reconstructing childhood: Contemporary issues in the sociological study of childhood (pp 3-8). Routledge.
- James, A. & Prout, A. (2001) Constructing and reconstructing childhood: Contemporary issues in the Sociological study of childhood. London: Routledge.
- Jenks, C. (2005). *Childhood: Critical concepts in Sociology*. New York: Routledge.
- James, A., & James, A. (2008). Key concepts in Childhood Studies. LA: Sage.

SKILL BASED COURSE

SBC HDCS 101: CONTENT DEVELOPMENT FOR EARLY CHILDHOOD CARE AND EDUCATION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
Content	2	0	0	2	As per	Nil
Development					admission	
for Early					criteria	
Childhood Care						
and Education						

Learning Objectives

- To evaluate the principles of content development for early childhood.
- To evaluate different forms of developmentally and culturally appropriate content and assess the impact on child engagement and learning.
- To create content which is developmentally appropriate, culturally relevant, and inclusive.

Learning Outcomes

The students would be able to:

- Learn to identify culturally relevant, inclusive, and engaging content for early childhood.
- Appraise content structure in different forms such as stories, songs, and digital platforms, and their impact
- Develop content based on children's engagement and learning outcomes using movement, music, theatre, and puppetry.

Practical (Credits 2; 60 Hours)

UNIT I: Foundations of Content development for early childhood 20 Hours

This unit lays thrust on the principles of early childhood content and understanding the different forms of available content

- Characteristics of developmentally appropriate, culturally relevant, and inclusive content
- Exploring different forms of content with special emphasis on folk forms
- Significance of print and audio-visual content and its usage

This unit highlights the structure, components and approaches to content development for early childhood

- Analyzing content structure in stories, songs, poems, and media forms
- Storytelling techniques and approaches: Traditional to Digital
- Principles of creating interactive digital media
- Assessing child engagement and learning outcomes with different media

UNIT IIb: Designing Engaging Content for Early Childhood

20 Hours

This unit focuses on designing and execution of content which is developmentally and culturally appropriate

- Designing and developing appropriate content for early childhood- storybooks, storyboards, digital media, activity book
- Integrating movement, music, theatre, puppetry, and arts in content
- Execution of the designed content in Early Childhood settings

Essential Readings

- Eliason, C. & Jenkins, L. (2012). A practical guide to early childhood curriculum. (9th Ed.). Upper Saddle River, NJ: Pearson.
- Harris, V. J. (2008). Children's books: Selecting books that children will want to read. The Reading Teacher, 61(5), 426-430.
- Gopalkrishnan, A (2011). The essentials and foundations of multicultural children's literature. Multicultural children's literature: A critical issues approach. Los Angeles: Sage. pp. 21-48.
- Prakash, S. & Mathur, P. (2000). Children and TV. NCERT,
- Real, M. R. (1996). Exploring Media Culture. New Delhi: Sage
- Singer D.G. & Jerome L. (2012). Handbook of Children and Media. California: Sage.
- Gadzikowski, A. (2013). *Story dictation: A guide for early childhood professionals*. Redleaf Press.

Suggested Readings

- Dharmarajan, G. (2013). *Katha's treasure trove: A collection of stories for children*. Katha Books.
- Dharmarajan, G. (2015). *The magical fish*. Katha Books.
- Popat Vats, S. (2021). *Understanding metacognition in the foundational years*. EduTech Publishing
- Eipe, R. (n.d.). *Hello Sun*. Pratham Books
- Khyrunnisa, A. (2010). *Howzzat Butterfingers!*. Puffin Books.
- Kurian, P. (n.d.). *Bow Meow Wow*. Pratham Books
- Schickedanz, J. A., & Collins, M. F. (2013). So much more than the ABCs: The early phases of reading and writing. National Association for the Education of Young Children (NAEYC)
- Ramchandani, V. (2018). Sera learns to fly. Katha Books.

- Vats, S. P. (2019). *Once upon a story: Divaswapna and the Gijubhai method.* The Write Place & Authors Upfront.
- Wormsley, D. P., & D'Andrea, F. M. (Eds.). (2016). *Handbook of effective literacy instruction: Research-based practice K-8*. AFB Press.
- Yoon, J & Onchwari, J. A. (2005). Teaching young children science: Three key points. Early Childhood Education Journal, 33(6), 419-423. DOi:10.1007is10643-006-0064-4

SKILL BASED COURSE

SBC HDCS 102: RESOURCE DEVELOPMENT FOR DISABILITY AND INCLUSION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
Resource	2	0	0	2	As per	Nil
Development					admission	
for Disability					criteria	
and Inclusion						

Learning Objectives

- To appraise and analyse inclusive environments
- To design contextually sensitive spaces catering to varied disabilities
- To develop contextually sensitive aids catering to varied disabilities
- To create inclusive environments and implement aids

Learning Outcomes

The students would be able to:

- Learn the concept of inclusive environments and the importance of accessibility for individuals with various disabilities.
- Create adaptable spaces that are accessible and demonstrate the ability to apply universal design principles
- Demonstrate the ability to create contextually appropriate aids for different disabilities.
- Evaluate the effectiveness of their aids through implementation and feedback.

PRACTICAL (Credits 2, Hours 60)

Unit I: Understanding Inclusive Environment across contexts

15 Hours

This unit lays thrust on the principles of inclusion and understanding accessibility and assessment of diverse needs

- Defining and understanding the need for inclusive environments through field visits and observations
- Needs Assessment Survey and accessibility mapping
- Disability experiences in diverse environments

Unit IIa: Designing inclusive spaces across contexts

20 Hours

This unit focuses on creating inclusive spaces that demonstrate the ability to apply universal design principles

- Conceptualizing inclusive spaces- Built environment
- Designing Sensory Spaces for children- Outdoor and Indoor
- Designing Accessible Materials
- Integrating Assistive Technology

Unit IIb: Building Inclusive Resource Material/Tools/Aids BALA

25 Hours

This unit focuses on designing and implementing of resources that are developmentally and culturally appropriate

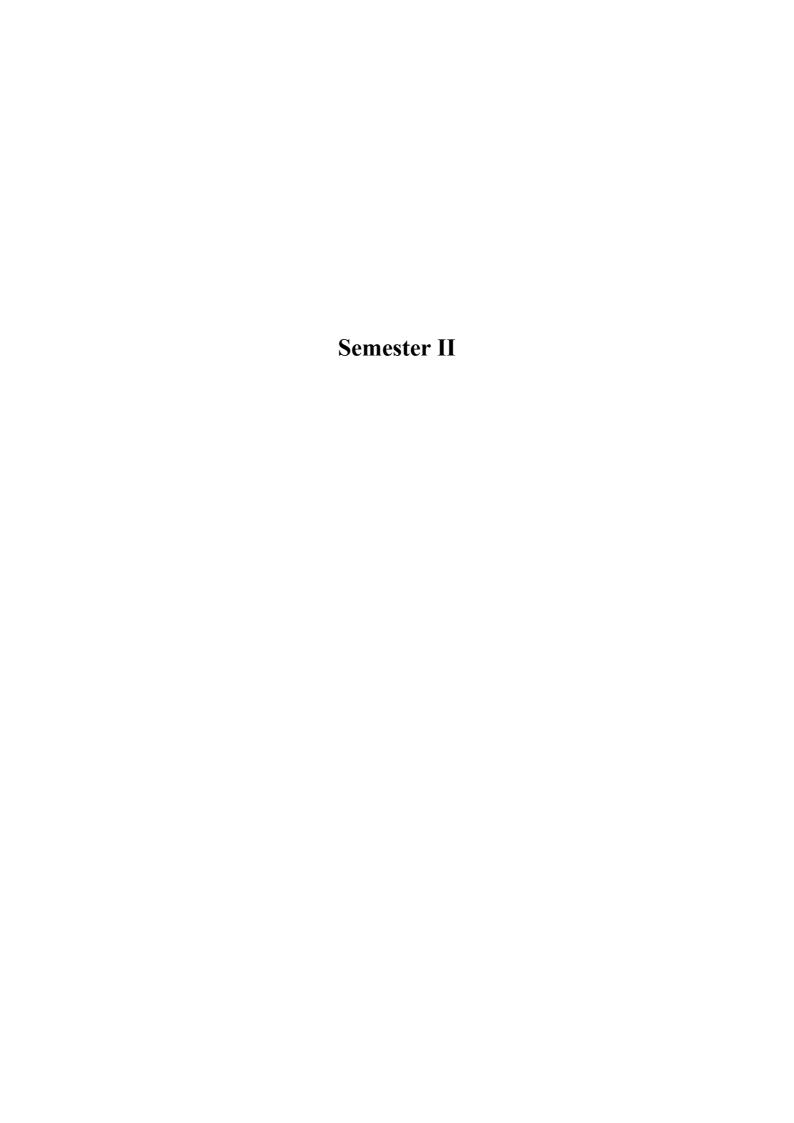
- Developing Aids for Physical motor, language, and social-emotional development
- Developing Aids for self-help and self-awareness
- Implementation of developed aids
- Fieldwork and Documentation

Essential Readings

- Cartledge, G., Gardner, R., & Ford, D. Y. (2009). *Diverse Learners with Exceptionalities: Culturally Responsive Teaching in the Inclusive Classroom*. Boston, MA: Pearson.
- Eredics, N. (2018). *Inclusion in Action: Practical Strategies to Modify Your Curriculum*. Baltimore, MD: Brookes Publishing.
- Leicester, M. (2008). Creating an inclusive school. London: Continuum International Publishing Group.
- Martin, L, C.(2009). Strategies for teaching students with learning disabilities. Corwin Press
- Sharma, U., & Desai, I. P. (2012). *Inclusive Education: Perspectives and Practices*. New Delhi, India: Kanishka Publishers.
- Shula, C. (2000). Understanding children with language problems. Cambridge.
- Thapa, K. (2008). Perspectives on learning disabilities in India. (current practices and prospects). Sage Publication, Los Angeles.
 - Trusdell M. L., & Horowitz, I. W. (2002). Understanding learning disabilities: a parent guide and workbook for parents, teachers, professionals, advocates and others who work with, or come in contact with, individuals with learning disabilities. (3rd ed) Maryland. York Press.

Suggested Readings

- McCardle, P., Miller, B., Lee, J, R., & Tzeng, O, J.L. (2011). Dyslexia across languages. Baltimore.
- Moore, S. (2016). One Without the Other: Stories of Unity Through Diversity and Inclusion. Winnipeg, Canada: Portage & Main Press.
- Nielsen, L. (2012). *The FIELA Curriculum: 730 Learning Environments*. Louisville, KY: LilliWorks Active Learning Foundation.
- Sleeter, C. E., Upadhyay, S. B., Mishra, A., & Kumar, S. (2012). *School Education, Pluralism and Marginality: Comparative Perspectives*. Hyderabad, India: Orient BlackSwan.



DISCIPLINE SPECIFIC CORE COURSE DSC HDCS 201: SOCIAL PSYCHOLOGY FOR HUMAN DEVELOPMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &	Credits	Credi	Credit Distribution of the Course			Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
Social Psychology for Human Development	4	2	0	2	As per admission criteria	Nil

Learning Objectives

To get acquainted with Social Psychology theories in practice, and carry out ethical social experiments/research

- To study the principles and concepts of Social Psychology
- To analyse the origins of social behaviour, interactional processes and group dynamics
- To acquire knowledge about psychological underpinnings of social behaviour in diverse contexts

Learning Outcomes

The students would be able to:

- Define Social Psychology and delineate its fundamental concepts
- Explain group dynamics and individual behaviour in varied contexts
- Describe the psychological underpinnings of social behaviour and apply them to contemporary issues

THEORY (Credits 2; Hours 30)

UNIT I: Introduction to Social Psychology and Social Interaction

6 Hours

This unit introduces the foundational principles of social psychology and social behaviour.

- Basic concepts in social psychology
- Fundamental principles of social behaviour and group dynamics
- Formation of the social self: Self-concept, self-esteem, and identity
- Types of social groups: Peers, family, society, community, and others

This unit focuses on social influence, leadership, and factors shaping group dynamics.

- Leadership, followership, and group behaviour
- Conformity and compliance
- Social communication, control, discipline, persuasion, and social influence

UNIT III: Social Perceptions and Stereotypes

8 Hours

This unit highlights the cognitive and affective components of social interactions.

- Prejudice, ethnocentrism, and stereotypes
- Fundamental attribution error
- Attitudes, beliefs, and values

UNIT IV: Selected Aspects and Applications of Social Behaviour

8 Hours

This unit explores prosocial and antisocial behaviours, along with applied aspects of social psychology.

- Prosocial behaviour: Altruism, cooperation, empathy, sympathy, friendship, and cohesion
- Antisocial behaviour: Violence and aggression towards individuals and groups
- Application of social psychology in understanding psychopathology
- Creative social experiments

Essential Readings

- Baumeister, R. F., & Bushman, B. J. (2020). *Social psychology and human nature* (5th ed.). Cengage Learning.
- Dovidio, J. F., Hewstone, M., Glick, P., & Esses, V. M. (2019). *The SAGE handbook of prejudice, stereotyping and discrimination* (2nd ed.). SAGE Publications.
- Fiske, S. T. (2018). Social beings: Core motives in social psychology (4th ed.). Wiley.
- Hogg, M. A., & Vaughan, G. M. (2021). Social psychology (9th ed.). Pearson.
- Schneider, F.W., Gruman, A., Coults, L.M. (Eds.). (2012). Applied social psychology: Understanding and addressing social and practical problems. New Delhi: Sage publications.
- Hornsey, M. J., & Jetten, J. (2020). The psychology of social identity and intergroup relations. Springer.
- Van Lange, P. A. M., Kruglanski, A. W., & Higgins, E. T. (2020). *Handbook of theories of social psychology*. SAGE Publications.

Suggested Readings

- Baron, R.A., Byrne, D. &Bhardwaj, G. (2010). Social Psychology (12th Ed.). New Delhi: Pearson.
- Bierhoff, H. W. (2017). *Prosocial behaviour*. Routledge.

- Chaudhary, N. (2009). Social dynamics in complex family systems and its study. In J. Valsiner, P.C.M. Molenaar, & M.C.D. P. Lyra (Eds.), *Dynamic process methodology in Social and Developmental Sciences*. (p.377-399). New York: Springer.
- Dalal, A. K., & Misra, G. (2001). *New directions in Indian Psychology*. Vol.1. New Delhi: Sage.
- Harre, R. (1979). Social being: A theory for Social Psychology. Oxford: Basil Blackwell.
- Leung, K., Kim, U., Yamaguchi, S., kashima, Y. (1997). *Progress in Asian Social Psychology, Vol1*. Singapore: John Wiley & Sons.
- Palmer, S. (Ed.). (2002). Multicultural counselling: A reader. London: Sage.
- Rao, K.R., Paranjpe, A.C. & Dalal, A.K. (2008). *Handbook of Indian Psychology*. New Delhi: Cambridge University Press.
- Rubin, M., & Hewstone, M. (2021). *Intergroup relations*. Oxford University Press.
- Smith, P.B., Bond, M.H., & Kagitcibasi, C. (2006). Understanding social psychology across cultures. New Delhi: Sage Publication.
- Taylor, S.E., Peplau, L.A. & Sears, D.O. (2006). Social Psychology (12th Ed.). New Delhi: Pearson

PRACTICAL

(Credits 2; Hours 60)

- Identify and describe any ten influential Social Psychology Experiments.
- Document concepts in Social Psychology, and their study methods and relevant findings through analysis of students' dissertations available to you.
- Carry out focused group interviews/survey on the following:
 - Women leaders/workers in corporate sector: stereotypes and prejudice
 - Mob violence: social perceptions
 - o Ageism
 - Social networking and communication platforms: participation of youth in selected materially restricted settings
 - o Contemporary politics: emergent themes
 - Mental illness and Depression: age and context variables
- Design a social experiment to bring about change in people's attitudes in any of the above listed areas. As part of the experiment, prepare a communication aid containing socially relevant messages fit for dissemination among concerned groups/general public.
- Prepare a report on any one of the social processes like leadership, social influence, prejudice, stereotyping, or any other.

DISCIPLINE SPECIFIC CORE COURSE DSC HDCS 202: EDUCATION FOR HUMAN DEVELOPMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credi	t Distributi	on of the	Eligibility	Pre-requisite
&		Course			Criteria	of the Course
Code		Lecture	Tutorial	Practical		(if any)
Education for	4	3	1	0	As per	Nil
Human					admission	
Development					criteria	

Learning Objectives

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

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

Learning Outcomes

The students would be able to:

Students will be able to-

- Describe effective teaching and learning in the classroom concerning various practices, processes, and materials.
- Appraise critical issues in the development and implementation of curriculum, textbooks, and teaching materials
- Explain major concerns in implementation and compare them with global perspectives.

THEORY (Credits 3; Hours 45)

UNIT I: Principles of Teaching, Learning, and Classroom Management 10 Hours

This unit emphasizes child-centered pedagogy, active learning, and classroom organization for effective teaching.

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

UNIT II: Human Development and Curriculum Design

10 Hours

This unit focuses on curriculum underpinnings, diversity, and the role of materials in teaching and learning.

- Curriculum basics and underpinnings
- Human Development as both a source and an objective of the curriculum
- From Curriculum to Practice: Role of textbooks, materials, and other means
- Diversity, equity, and curriculum

UNIT III: Curriculum Issues and Critical Perspectives

10 Hours

This unit addresses challenges and issues affecting curriculum effectiveness and its implementation.

- Critical issues affecting curriculum development and effectiveness
- Role of stakeholders in curriculum implementation
- Integration of inclusive and equitable practices in curriculum
- Evaluating curriculum outcomes and effectiveness

UNIT IV: Education Systems, Policies, and Innovative Practices

15 Hours

This unit deals with the broader perspectives on school systems, policies, and teacher development.

- Global and historical perspectives on education systems, with a focus on India
- Policies, plans, and programmes
- School as an organization and characteristics of a child-friendly school
- Teacher development and capacity building
- Participation in education: Retention, learning, and completion
- Status of today's schools and system effectiveness
- Case studies of innovative schools and programmes

TUTORIAL

(Credit 1, Hours 15)

- Prepare a list of teaching-learning materials that can be used for effective and active learning with children Illustrate different ways in which the classroom can be organised.
- Enlist criteria for selection of quality textbooks for learners
- Review a curriculum with emphasis on whether it is inclusive and equitable, characterized by quality learning, promotes lifelong learning, and relevance to holistic development
- Individual presentation on any one case study of innovative schools and programmes
- Focus group discussion on individual understanding about the need for teacher development and how it can achieved
- Review characteristics of a child-friendly school
- Present arguments for developing culturally and contextually suited curriculum and pedagogy to deal with concerns in education

Essential Readings

- Bruner, J. (2010). *The culture of education*. Harvard University Press.
- Kumar, K. (2016). Politics of education in colonial India. Routledge India.
- Nambissan, G. B. (2013). *Education and social justice in India: Challenges of equity in schooling*. Routledge.
- Pianta, R. C., Hamre, B. K., & Allen, J. P. (2012). Handbook of classroom

- management: Research, practice, and contemporary issues. Routledge.
- Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners*. ASCD.
- Sharma, R. (2021). *Effective teaching and classroom management in India*. Sage Publications.
- Thomas, G. (2013). Education: A Very Short Introduction. Oxford University Press.

Suggested Readings:

- Alexander, R. (2000). *Culture and pedagogy: International comparisons in primary education*. Cambridge, Mass.: Blackwell.
- 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.
- The National Achievement Survey (NAS). 2016. New Delhi: NCERT.
- Banerjee, A. V., & Duflo, E. (2019). Good economics for hard times. Public Affairs.

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

DISCIPLINE SPECIFIC CORE COURSE DSC HDCS 203: ASSESSMENT AND EVALUATION IN HUMAN DEVELOPMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course	
Code		Lecture	Lecture Tutorial Practical			(if any)	
Assessment and	4	2	0	2	As per	Nil	
Evaluation in					admission		
Human					criteria		
Development							

Learning Objectives

- To state the meaning and purpose of different methods of assessments
- To familiarize with the role of evaluation and protocols in the same
- To acquire a repertoire of skills for working with children & relevant adults in different contexts

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
- Demonstrate skills in recording fieldwork

THEORY (Credits 2; Hours 30)

UNIT I: Approaches to Studying Children

5 Hours

- Introduction to fieldwork and its significance
- Observational studies of children and their life settings using ethnographic methods
- Understanding the role of context in child development research

UNIT II: Fieldwork Methods

5 Hours

• Interviewing children and relevant adults

- Conducting focus group discussions and Participatory Learning and Action (PLA) techniques
- Theatre-based methods and creative activities for data collection

UNIT III: Data Sources and Assessment Tools

10 Hours

- Use of archival and secondary data sources
- Study tests, assessment protocols, and developmental norms
- Introduction to developmental assessment tools: *Portage*, *Bayley Scales of Infant Development (BSID)*

UNIT IV: Evaluation and Developmental Measures

10 Hours

- Tests of cognition, language, and behaviour
- Understanding and interpreting developmental norms
- Basics of evaluation and research design

PRACTICAL (Credits 2, Hours 60)

- Conduct observation in different settings
- Conduct Interviews for different age groups and varied contexts
- Organise and conduct focus groups
- Design and implement evaluation of learning in a pre-school/primary school, (for one subject / thematic area), and analyze the data emanating from it.
- Design a programme evaluation for a small project / programme, including objectives, tools, implementation design and data analysis
- Undertake analysis of data produced by any in-depth qualitative/ quantitative evaluation study (e.g. countrywide learning assessment conducted by NCERT) in order to draw inferences and suggest an improvement plan for the programme / system evaluated.

Essential Readings

- Anandalakshmy,S., Chaudhary, N. & Sharma,N. (Eds.). (2008). Researching Families and Children: Culturally Appropriate Methods. New Delhi: Sage
- Anastasi, A. & Urbina, S. (1997). Psychological Testing (Seventh edition). Indian Reprint. Delhi: Pearson Education.
- Burgess, Robert G. (1990). In the Field: An Introduction to Field Research: Contemporary Social Research. London: Routledge.
- Denzin, N. and Lincoln, Y. 2005. The Sage Handbook of Qualitative Research. London:

Sage.

• Mishler E. (1991) Research Interviewing: Context and Narrative. Harvard University Press, Cambridge, MA.

Suggested Readings

- Fivush, R., & Haden, C.A. (2003) (Eds.). Autobiographical Memory and the Construction of the Narrative Self. Mahwah, N.J.: Lawrence Erlbaum.
- Gordon, T., Holland, J. Lahelma, E. and Tolonen, T. (2005). Gazing with Intent: Ethnographic Practice in Classrooms. Qualitative Research, 5.
- Hart, C. (1998). Doing a Literature Review: Releasing the Social Science Research Imagination. London: Sage.

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course	
Code		Lecture	Tutorial	Practical		(if any)	
DSE HSC 201: Advanced Research Methods in Home Science	4	3	0	1	As per admission criteria	Nil	

Learning Objectives

- To explain the types and approaches to research.
- To describe the principles and process of quantitative research approach.
- To describe the principles and process of qualitative research approach.
- To elaborate the critical ethical issues for planning, conducting and publishing research.

Learning Outcomes

The students would be able to:

- Describe the types, paradigms and approaches to research.
- Employ the principles and process of quantitative research approach.
- Appraise the principles and process of qualitative research approach.
- Apply the principles of ethics in designing, executing and reporting of research.
- Formulate a research proposal in any specialized area of Home Science.

THEORY (Credits 3; Hours 45)

UNIT I: Research: Paradigms, approaches and process

10 Hours

This unit introduces the concept, types, designs, paradigms, approaches and process of research. The unit also highlights the concerns of reliability and validity in research.

- Definition and objectives of research
- Importance, scope and types of research
- Research design: Concept and significance

- Paradigms of research
- Research approaches: Quantitative, qualitative and mixed methods
- Reliability and validity in research methods and concerns
- The Research Cycle

UNIT II: Principles and process of quantitative research approach

12 Hours

This unit focuses on various research designs, methods of sampling and data collection techniques followed in quantitative research approach. It also emphasizes on the levels of measurement of data and errors in quantitative research

- Components, types and applications of research designs in quantitative research approach: Observational and experimental designs
- Concept of sampling, sampling methods Probability and non-probability sampling in quantitative research
- Methods of data collection in quantitative research
- Measurement in research, scales and errors in measurement
- Errors in inference bias and confounding

UNIT III: Principles and process of qualitative research approach

14 Hours

This unit introduces students to qualitative research methodologies, exploring their philosophical foundations, data collection methods, analysis techniques and ethical considerations.

- Philosophical underpinnings: Constructivism, interpretivism and critical theory
- Approaches to qualitative research: Ethnography, phenomenology, case study research, grounded theory and action research.
- Sampling in qualitative research
- Data collection methods and techniques: Observation, interview, focus group discussion and case study.
- Data management and analysis in qualitative research: Thematic, narrative and discourse analysis

UNIT IV: Research and publication ethics

9 Hours

This unit addresses issues related to research integrity, responsibilities of researchers and ethical standards for publishing academic work.

- Definition and importance of research ethics: Ethical concerns for research in the field of Home Science
- Ethical principles in Research planning and execution: Informed consent, anonymity, confidentiality and privacy, voluntary participation, safety and dignity of participants, transparency
- Data integrity and ethical data collection: use of appropriate methodology, ensuring accuracy and validity, managing sensitive data, avoiding misuse of information
- Bias and conflict of interest in research
- Forms of research misconduct: Fabrication and falsification of data and plagiarism

• Ethical issues in research publication: Selective reporting, misrepresentation of data, salami slicing and predatory publications

PRACTICAL (Credits 1; Hours 30)

- 1. Critical review of a published original research article in any area of Home Science.
 - Identification and documentation of strengths and weaknesses of various components of the selected research article
- 2. Sampling in Research
 - Probability and non-probability sampling techniques
- 3. Formulation of a data collection tool
- 4. Referencing and Citation in Scientific Writing
 - Importance and different styles of referencing
 - Concept of in-text and post-text referencing
 - Digital tools for referencing
- 5. Plagiarism in research
 - Concept and types of Plagiarism
 - Technical writing using quotations, paraphrasing and summarizing
 - Plagiarism detection software
- 6. Formulation of a research proposal
 - Identification of a research problem/thrust area in any specialization of Home Science
 - Literature review related to the identified research problem
 - Proposal formulation giving timeline for conducting the research study

Essential Readings

- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research* (4th ed.). Cengage Learning.
- Kothari, C. R., & Garg, G. (2023). *Research Methodology: Methods and Techniques*. New Age International Pvt Ltd, New Delhi.
- Kumar, R. (2019). *Research Methodology: A Step-by-Step Guide for Beginners*. 5th Ed. Sage Publications, New Delhi.
- UGC (2021) *Academic Integrity and Research Quality*. New Delhi: UGC, Retrieved from https://www.ugc.ac.in/e-book/Academic%20and%20Research%20Book WEB.pdf

Suggested Readings

- Aggarwal, J. & Sabharwal, V. (2025). Essentials of Research Methodology- A Practical Manual. Elite Publishing House, New Delhi.
- Bernard, H. R. (2000). Social research methods: Qualitative and quantitative approaches. Thousand Oaks, CA.: Sage.
- Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). SAGE Publications.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). SAGE Publications.
- Silverman, D. (2020). *Qualitative research* (5th ed.). SAGE Publications.

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 HDCS 202: LAW, POLICY AND PROGRAMMES FOR CHILDREN

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
Law, Policy and Programmes for Children	4	2	0	2	As per admission criteria	Nil

Learning Objectives

- To recognise the international conventions, frameworks and policies in India related to children
- To evaluate the effectiveness of government programs and challenges in the implementation process
- To examine the role of advocacy, NGOs, and community-based organizations in promoting and implementing children's rights laws.

Learning Outcomes

The students would be able to:

- Demonstrate a comprehensive understanding of international conventions and Indian legal frameworks
- Explain the effectiveness of government programs aimed at child welfare and identify key challenges in their implementation.
- Discuss the role and impact of advocacy, NGOs, and community-based organizations in promoting children's rights and influencing policy change.

THEORY

(Credits 2; Hours 30)

UNIT 1: Foundation of Child Rights, International Conventions, and Legal Frameworks in India

This unit introduces the foundational understanding of child rights, international conventions, and the role of constitutional provisions and laws in shaping child welfare policies in India.

- Introduction to Child Rights: Concepts and Frameworks
- The United Nations Convention on the Rights of the Child (CRC)

• India's Constitutional Provisions Related to Children and their Role in Protecting and Promoting Children's Rights

UNIT 2: Key Laws and Legal Safeguards for Children

8 Hours

This unit explores the major laws designed to protect children's rights and ensure their welfare.

- The Juvenile Justice (Care and Protection of Children) Act, 2015
- The Protection of Children from Sexual Offences (POCSO) Act, 2012
- The Right to Education Act (RTE), 2009
- The Role of the National Commission for Protection of Child Rights (NCPCR)

UNIT 3: Policies, Programs, and Implementation Challenges

6 Hours

This unit examines national policies, programs, and the barriers that hinder effective implementation.

- National Policy for Children, 2013
- Key Government Schemes: Integrated Child Development Services (ICDS), Beti Bachao Beti Padhao, Pradhan Mantri Matru Vandana Yojana
- Challenges in Policy Implementation: Socio-Cultural, Political, and Economic Barriers

UNIT 4: Advocacy, Implementation Approaches, and Future Directions 6 Hours

This unit focuses on the role of advocacy, NGOs, and community-based organizations in promoting and implementing children's rights laws.

- The Role of NGOs and Civil Society in Promoting Children's Rights
- Advocacy Strategies and the Role of Media in Shaping Public Opinion and Policy Change
- Community-Based Approaches to Child Protection and Education
- Future Directions: Emerging Issues in Child rights
- Innovations in Policy and Law

PRACTICAL

(Credits 2, Hours 60)

- Legal and Policy Analysis: Comparative analysis of key national and international legal frameworks related to children.
- Group discussions on policy gaps and implementation challenges.
- Case Study- In-depth analysis of real-life case studies on the implementation of children's rights laws in India.
- Policy Design: Design a policy or program intervention aimed at improving the welfare of women and children, based on identified gaps from current government schemes.
- Draft an evaluation framework for assessing the effectiveness of an existing policy or program targeting women and children.
- Conduct focus groups or surveys to gather data on community perceptions of government

schemes.

- Advocacy and Awareness Campaign: Develop and present an advocacy campaign for a specific issue (e.g., child marriage) addressing policy gaps and promoting legal literacy.
- Design posters, digital content, and conduct community outreach to raise awareness of a law or program targeting women and children.

Essential Readings

- Bose, R. (2020). *India's Child Welfare Policies and Programs: Status and Effectiveness*. Oxford University Press.
- Chatterjee, P., & Ghosh, S. (2017). *Child Rights and Education in India: Policies, Programmes, and Practices.* Routledge.
- Haque, M. S., & Khatun, A. (2017). *Child Rights and Social Work: A Global Perspective*. Routledge.
- Kumar, R. (2015). Children and the Law: A Casebook. Oxford University Press.
- Mehta, M. (2012). *Child Protection and Juvenile Justice: A Handbook for Social Workers*. Routledge.
- Sinha, D. (2019). Child Protection Laws in India: Challenges and Issues. Springer.
- Mukherjee, S. (2018). *The Rights of the Child in India: An Analytical Approach*. SAGE Publications.

Suggested Readings

- Basu, D. D. (2015). *Introduction to the Constitution of India* (23rd ed.). LexisNexis.
- Gupta, A. (2019). *Child Rights and Protection: Challenges in Legal and Social Frameworks*. Routledge India.
- Pandey, P. (2014). *Legal Frameworks for Child Protection in India*. Eastern Book Company
- Ravi, S. (2017). Women and Children in Indian Law. Universal Law Publishing.
- Sood, M. (2016). *Children and the Law: Legal Perspectives on Child Welfare*. Cambridge University Press.
- United Nations. (2011). *Convention on the Rights of the Child: A Handbook.* UN Publications.

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 HDCS 203: ANTHROPOLOGY OF CHILDHOOD

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credi	t Distributi	on of the	Eligibility	Pre-requisite
&			Course		Criteria	of the Course
Code		Lecture	Tutorial	Practical		(if any)
Anthropology of Childhood	4	3	1	0	As per admission criteria	Nil

Learning Objectives

- To explore the historical, cultural, and theoretical foundations of childhood in anthropology with a specific focus on cross-cultural and contemporary perspectives.
- To examine the processes of socialization and cultural contexts that influence childhood across cultures
- To analyze the intersection of formal education, child labor, and identity in a globalized world, with a focus on the changing roles of children

Learning Outcomes

The students would be able to:

- Demonstrate an understanding of the historical and theoretical foundations of childhood in anthropology
- Explain the influence of socialization processes, cultural practices, and play in shaping childhood experiences
- Evaluate the impact of global issues such as migration, displacement, and formal education on the identity and roles of children in a rapidly changing world.

THEORY

(Credits 3; Hours 45)

UNIT 1: Introduction to Anthropology of Childhood

12 Hours

This unit highlights the historical and contemporary perspectives on childhood.

- Concept of Children and Childhood in Anthropology
- Historical and Theoretical Foundations of Childhood in Anthropology
- Cross-cultural and Contemporary Perspectives
- Conceptualizations of Childhood in India

UNIT 2: Socialization and Cultural Practices in Childhood

10 Hours

This unit discusses the processes of socialization and the value of children across different cultures.

- Socialization Processes: Understanding Family, Peer Groups, Schools, and Community
- Bringing up Children: Child Rearing Beliefs and Practices, Rituals, and Traditions
- Children as Guardians and Interpreters of Indigenous Knowledge: Apprenticeship, Skill Development, and Informal Learning

UNIT 3: Play, Narratives, and Tribal Childhoods

8 Hours

This unit explores children's everyday lives, folklore, and leisure activities with a cultural lens.

- Play, Narratives, and Gender: Understanding Children's Folklore in Context
- Leisure Time Activities of Tribal Children
- Intersection of Culture, Identity, and Childhood

UNIT 4: Formal Education, Identity, and Global Challenges

15 Hours

This unit focuses on the intersectionalities of education, children's work, and global changes.

- Formal Schooling and Intersectional Identity of Childhood
- Social Exclusion of Tribal Children from Schooling
- Reframing Children's Work and the Politics of Childhood Identity
- Impact of Migration, Displacement, Conflict, Diaspora, Refugee Situations, and Climate Change
- Changing Roles of Children in a Globalized World

TUTORIAL

(15 Hours)

Discussion/Workshops/Projects/Presentations on childhood in indigenous communities.

Essential Readings

- Agarwal, M. (2013). Anthropology of childhood: A cross-cultural approach. Concept Publishing Company.
- Boyden, J. (2013). Children and childhood in the anthropology of the state. Palgrave Macmillan.
- Hirschfield, L. (2002). Why don't Anthropologists like children? *American Anthropologists*, 104 (2), 611-627. https://www.jstor.org/stable/684009.
- Konner, M. (2010). *The evolution of childhood: Relationships, emotion, mind.* Belknap Press.
- Lancy, D. (2015). The Anthropology of Childhood: Cherubs, Chattel, Changelings.
 Cambridge University Press.
- Srivastava, V.K. (2015). Are Children Individuals? In Deepak Kumar Bahera (Eds.), Contemporary Society: Tribal Children and Their Childhood (Vol X), (pp.3-23). Concept Publishing Company Pvt. Ltd. New Delhi.
- Subramanyam, V. (2015). Social Exclusion of Tribal Children from Schooling in

Andhra Pradesh. In Deepak Kumar Bahera (Eds.), Contemporary Society: Tribal Children and Their Childhood (Vol X), (pp.135-160). Concept Publishing Company Pvt. Ltd. New Delhi.

Suggested Readings

- Konner, M. (2005). Hunter-Gatherer infancy and childhood: The !Kung and others. In
 B. Hewlett, M. Lamb (Eds.), *Hunter-Gatherer Childhoods*, pp. 19-64.
- Ghosh, S. (2016). Childhood, culture and society in India. Springer.
- Gupta, R. (2015). Cultural sociology of children and childhood. Routledge India.
- Lancy, D. (2014). Babies aren't persons: A survey of delayed personhood. In H. Otto & H. Keller (Eds.), *Different faces of attachment: Cultural variations of universal human need* (pp. 66-112). Cambridge University Press.
- LeVine, Robert. (2007). Ethnographic Studies of Childhood: A Historical Overview.
- Mead, Margaret. (1928). Coming of Age in Samoa.
- Reichel, E. (2015). Concepts of Children and Childhood in Anthropology and a Tribal Community of Middle India. In Deepak Kumar Bahera (Eds.), Contemporary Society: Tribal Children and Their Childhood (Vol X), (pp.24-37). Concept Publishing Company Pvt. Ltd. New Delhi.
- Sarmah, J. (2018). Children in a globalized world: Development and identity in contemporary childhood. Springer.
- Shukla, R. (2017). Anthropological perspectives on childhood: Understanding children's roles in society. Sage Publications.
- Qureshi, S. M. (2015). Socialization and childhood in rural India: The changing socio-cultural roles of children. Cambridge University Press.

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

SKILL BASED COURSE

SBC HDCS 201: WORKING WITH VULNERABLE FAMILIES AND COMMUNITIES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
Working with Vulnerable	2	0	0	2	As per admission	Nil
Families and Community					criteria	

Learning Objectives

- To develop a conceptual understanding of Vulnerability and the multidimensional nature of vulnerability in families and community
- To evaluate evidence-based intervention approaches for strengthening families and communities.
- To analyze and develop sustainable community intervention models based on legal frameworks and participatory approaches.

Learning Outcomes

The students would be able to:

- Describe structural inequalities and intersectional factors contributing to vulnerability and their implications
- Explain various intervention frameworks to promote family and community welfare
- Develop rights-based intervention strategies and community-driven projects for vulnerable populations.

Practical (Credits 2; Hours 60)

UNIT I: Recognising Vulnerability in Families and Communities

20 Hours

This unit discusses the concept and factors contributing to vulnerability and their impact on families and communities

• Concept of Vulnerability: Social, Economic, and Psychological Dimensions

- Structural Inequalities and Intersectionality in Vulnerability
- Role of Family and Community Systems in Development and Well-being
- Impact of Adverse Childhood Experiences (ACEs) on Families
- Social Determinants of Health and their Influence on Family Stability

UNIT IIa: Intervention Strategies and Support Mechanisms

20 Hours

This unit highlights strategies for intervention and approaches for strengthening families and communities

- Trauma-Informed Approaches to Working with Families
- Family Strengthening Programs: Parenting Support, Counselling, and Education
- Community-Based Approaches: Role of NGOs and Peer Networks
- Role of Schools, Healthcare, and Child Protection Services

UNIT IIb: Advocacy, Policy, and Sustainable Family and Community Engagement 20 Hours

This unit deals with policies and legal frameworks that guide community engagement and also designing intervention programs based on the guidelines

- Rights-Based Approaches and Legal Frameworks for Family Welfare
- Policy Interventions: Government Schemes and Social Protection Programs
- Participatory Methods for Community Engagement and Empowerment
- Ethical Considerations in Working with Vulnerable Populations
- Project: Designing a Community Intervention Program

Essential Readings

- Fraser, M. W., Kirby, L. D., & Smokowski, P. R. (2014). Risk and resilience in childhood: An ecological perspective (2nd ed.). NASW Press.
- Kumar, S., & Fischer, H. (2013). Community-based approaches to sustainable development. Routledge.
- Menon, N., & Nigam, S. (2021). Engaging with inequalities: Family, gender, and law in India. Orient Blackswan.
- Luthar, S. S. (2015). Resilience and vulnerability: Adaptation in the context of childhood adversities. Cambridge University Press.
- Patel, V. (2017). Where there is no psychiatrist: A mental health care manual. RCPsych Publications.
- Tobin, G. A., & Montz, B. E. (2019). Evolving vulnerability and social justice: The challenge of resilient communities. Routledge.
- Ungar, M. (2021). *Multisystemic resilience: Adaptation and transformation in contexts of change.* Oxford University Press.

Suggested Readings

- Baru, R. V. (2018). *Health and equity: Perspectives from India*. Oxford University Press
- Beck, U. (2011). Risk society: Towards a new modernity. SAGE.
- Masten, A. S. (2014). Ordinary magic: Resilience in development. Guilford Press.
- Patel, V., & Kleinman, A. (2019). *Mental health in low-resource settings: Challenges and solutions*. Cambridge University Press.
- Sriram, R (2014). Engaging in Social Intervention (For Learners) Volume I. New Delhi: Concept Publishing.
- Sriram, R (2014). Engaging in Social Intervention (For Mentors) Volume II. New Delhi: Concept Publishing.
- Ungar, M. (2012). The social ecology of resilience: A handbook of theory and practice. Springer.
- Wilkinson, R., & Pickett, K. (2018). *The inner level: How more equal societies reduce stress, restore sanity, and improve everyone's well-being.* Penguin Books.

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

SKILL BASED COURSE SBC HDCS 202: PARENTING AND EARLY INTERVENTION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credi	t Distributi	on of the	Eligibility	Pre-requisite
&		Course			Criteria	of the Course
Code		Lecture	Tutorial	Practical		(if any)
Parenting and Early	2	0	0	2	As per admission	Nil
Intervention					criteria	

Learning Objectives

- To recognise the foundational concepts of parenting and the various practices across cultures, as well as the challenges contemporary parents face.
- To examine the risk factors, developmental delays, and disabilities in children, along with the tools used for screening and assessment.
- To explore early intervention techniques and their practical implementation for children and families.

Learning Outcomes

The students would be able to:

- Evaluate parenting practices, identify the challenges, and understand how these challenges impact the parent-child relationship.
- Explain various risk factors and developmental delays in children and will demonstrate proficiency in using appropriate screening tools.
- Demonstrate skills to design, implement, and evaluate evidence-based early intervention programs, focusing on holistic child development and community-based support systems.

PRACTICAL (Credits 2; Hours 60)

UNIT I: Foundations of Parenting

10 Hours

This unit lays thrust on parenting practices, challenges, and the impact on parents

- Comprehending the Parent-Child relationship
- Parenting Practices across cultures
- Challenges of contemporary parenting
- Understanding parental stress and coping mechanisms

Unit IIa: High-Risk Children, Developmental Delays, and Disabilities 25 Hours

This unit highlights the risk factors and protective factors for children and approaches for screening and assessment

- Understanding Risk Factors: Socioeconomic, Environmental, and Biological Influences
- Identifying Developmental Delays: Screening and Assessment Tools
- Impact of Risk Factors on Child Development and Well-being
- Protective factors for children and addressing diverse Needs

Unit IIb: Early Intervention Techniques and Practical Implementation 25 Hours

This unit focuses on approaches to care for children and parents through evidence-based approaches

- Approaches to Care of the High-Risk newborn and family
- Designing Intervention Programs: Early Learning and Support Systems
- Parent Coaching and Behavioral Interventions for At-Risk Children
- Collaborations for Holistic Child Development
- Community-Based Approaches to Early Intervention
- Project: Designing an Evidence-Based Parenting or Early Intervention Program

Essential Readings

- Fraser, M. W., Kirby, L. D., & Smokowski, P. R. (2014). Risk and resilience in childhood: An ecological perspective (2nd ed.). NASW Press.
- Gil, E. (2012). Trauma-informed care for children and families. Guilford Press.
- Luthar, S. S. (2015). Resilience and vulnerability: Adaptation in the context of childhood adversities. Cambridge University Press.
- Ungar, M. (2012). The social ecology of resilience: A handbook of theory and practice. Springer.
- Walsh, F. (2016). Strengthening family resilience (3rd ed.). Guilford Press.

Suggested Readings

- Beck, U. (2011). Risk society: Towards a new modernity. SAGE.
- Masten, A. S. (2014). Ordinary magic: Resilience in development. Guilford Press.
- Ungar, M. (2021). *Multisystemic resilience: Adaptation and transformation in contexts of change.* Oxford University Press.
- Wilkinson, R., & Pickett, K. (2018). *The inner level: How more equal societies reduce stress, restore sanity, and improve everyone's well-being.* Penguin Books.

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

GE COURSE PARENTING IN CONTEMPORARY INDIA

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE GENERIC ELECTIVE COURSE

Course title & Code	Credits	Credit dist	ribution of th	ie course	Eligibility criteria	Pre- requisite of the course
		Lecture	Tutorial	Practical/ Practice		(if any)
Parenting in Contemporar y India	4	3	1	0	As per admission	Nil

Learning Objectives

- To explore contemporary parenting practices in India.
- To recognize understand age-appropriate parenting strategies for different developmental stages.
- To analyze parenting approaches in different families.

Learning Outcomes

By the end of this course, the students will be able to:

- Recognize parenting styles in India from traditional to contemporary practices.
- Analyze the influence of cultural, technological, and societal shifts on parenting.

THEORY

(Credits 3; Hours 45)

UNIT I: Introduction to Parenting

10 Hours

This unit introduces parenting and its traditional and contemporary connotations.

- Definition and importance of parenting in India
- Transition from traditional to contemporary parenting
- Contemporary parenting and its challenges
- Determinants of Parenting Behaviour

UNIT II: Parenting in different stages of childhood

10 Hours

This unit describes parenting in different stages of childhood.

- Developmental changes in parent-child relationships, attachment and autonomy, parentadolescent conflict
- Parenting styles and their impact (authoritative, authoritarian, permissive, uninvolved and helicopter parenting).

Unit III Parenting in Indian Families

15 Hours

This unit discusses childcare and parenting in the Indian familial and cultural context.

- Childcare in an Indian family: Role of parents, siblings and other family members.
- Cultural Perspectives on Parenting in Indian Context
- Advantages of parenting in joint families in India

UNIT IV: Parenting in Diverse Contexts

10 hours

This unit highlights the challenges of parenting in diverse contexts.

- Parenting in diverse socioeconomic backgrounds
- Parenting children with special needs
- Challenges and emerging trends: Impact of technology and media

Tutorial (Credit 1; 15 Hours)

- Group Discussions
- Book Review
- Class Presentations
- Group Projects
- Media Analysis (Movies, documentaries, serials, songs, advertisements, social media posts)
- Any creative production (group activity)

The above list is a suggested one and not an exhaustive list of Tutorial Activities.

Essential readings

- Berk, L.E. (2017). *Development through the lifespan*. Delhi: Pearson Education.
- Chandra, V. and Blair, S.L. (Ed.) (2024). *Indian Families: Contemporary Family Structures and Dynamics* (Contemporary Perspectives in Family Research, Vol. 26), Emerald Publishing Limited, Leeds, pp. i-xxii. https://doi.org/10.1108/S1530-353520240000026012
- Papalia, D.E. and Martorell, G. (2015). *Experience Human Development*. McGraw Hill Education.
- Santrock, J.W. (2017). A Topical Approach to Lifespan Development. New Delhi: Tata McGraw-Hill.

Suggested readings

- Patel-Amin, N. & Power, Thomas G. (2002). Modernity and childrearing in families of Gujarati Indian adolescents. *International Journal of Psychology*. 37(4): 239-245.
- Ranganathan, N. (Ed.). (2020). *Understanding Childhood and Adolescence*. New Delhi: Sage.
- Sachdeva, N. & Misra, G. (2008). The Changing Images of Parenting in the Three Subcultures of India. *Journal of the Indian Academy of Applied Psychology*, Vol. 34, Special Issue, 16-23. https://jiaap.in/wp-content/uploads/2008/05/2-1.pdf
- Sahithya, B. R., Manohari, S. M., & Vijaya, R. (2019). Parenting styles and its impact on children a cross cultural

review with a focus on India. *Mental Health, Religion & Culture*, 22(4), 357–383. https://doi.org/10.1080/13674676.2019.1594178

Sondhi, R. (2017). Parenting Adolescents in India: A Cultural Perspective.
 https://www.intechopen.com/chapters/53127.

Department of Resource Management & Design Application

2-Year MSc Curriculum under NEP

Only Coursework

DS	6C			DSF	2				l Based t Cours	e		Dissertation/Ac ademic
Paper Title	Credi	it Distril	bution	Paper Title	Credit	Distrib	ution	Paper Title	Credi	t Distri	bution	Project/Entrepr
(4 Credits each)	Th	Tu	Pr	(4 Credits each)	Th	Tu	Pr	(2 Credits each)	Th	Tu	Pr	eneurship
				SE	MESTE	RI						
Pick	All 3			Pick an	ny 2			Pio	ck any 1			
DSC RMDA 101: Building Design and Space Planning	2	0	2	DSE RMDA 101: Capacity Development for Sustainability	2	0	2	Pick any 1 from t courses listed				NIL
DSC RMDA 102: Resource Management and Sustainability	2	0	2	DSE RMDA 102: Human Centred Design and Ergonomics	2	0	2					
DSC RMDA 103: Marketing Management	3	0	1	DSE RMDA 103: Organizational Behaviour and Development	2	0	2					
				DSE RMDA 104: Designing Interiors and Styling	2	0	2					
	1	1	1	SEN	MESTER	R II						
Pick	All 3			Pick ar	ny 2			Pio	ck any 1			
DSC RMDA 201: Sustainable Built Environment	3	0	1	DSE HSC 201: Advanced Research Methods in Home Science	3	0	1	Pick any 1 from the list of even semester courses listed in the table below		NIL		
DSC RMDA 202: Project Management in Dynamic Environment	3	0	1	DSE RMDA 202: Consumer Behaviour & Sustainability	3	0	1					

DSC RMDA 203: Product Design and Development Strategies	2	0	2	DSE RMDA 203: Facilities Operation and Services	3	0	1	
					IESTER	R III		
Pick	x All 2			Pick an	y 3			Pick any 1
DSC RMDA 301: Inclusive Design	3	0	1	DSE RMDA 301: Statistics & Data Management	3	0	1	Pick any 1 from the list of odd semester courses listed in the table below
DSC RMDA 302: Corporate Social Responsibility	3	0	1	DSE RMDA 302: Policies & Practices for Sustainable Development	3	0	1	
				DSE RMDA 303: Advanced Space Design & Strategies	2	0	2	
				DSE RMDA 304: Climate Change & Ecosystem: Issues & Concerns	3	0	1	
				DSE RMDA 305: Design Management & Audit	2	0	2	
				DSE RMDA 306: Health & Safety in Built Environment	3	0	1	
				DSE RMDA 307: Social Design & Research Practices	3	0	1	
	1	1	1	SEM	IESTER	RIV		
Pick	x All 2			Pick an	y 3			Pick any 1

Entrepreneurship and	2	0	2	DSE RMDA 401: Energy	2	0	2	Pick any 1 from the list of even	NIL
Enterprise				Systems and				semester courses listed in the table	
Management				Sustainability				below	
				DSE RMDA 402:	3	0	1		
				Occupational ergonomics					
				and safety in living					
				spaces					
Financial Management	3	0	1	DSE RMDA 403: Waste	2	0	2		
& Accountancy				Management: Policies					
				and Technologies					
				DSE RMDA 404:	3	0	1		
				Professional Design					
				Practices & Startups					
				DSE RMDA 405:	2	0	2		
				Advancing Sustainable					
				Development in Practice					
				DSE RMDA 406: Design	2	0	2		
				Approaches in Built					
				Environment					

List of Skill Based Courses:

ODD SEMESTER	EVEN SEMESTER
SBC RMDA 01: CAD for Space Planning (2P)	SBC RMDA 02: ICTs for Sustainable Development (2P)
SBC RMDA 03: Event Design and Strategies (2P)	SBC RMDA 04: Program Monitoring and Evaluation (2P)
SBC RMDA 05: Internship (2P)	SBC RMDA 06: Internship (2P)

SEMESTER I

DISCIPLINE SPECIFIC CORE COURSE DSC RMDA 101: BUILDING DESIGN AND SPACE PLANNING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
Building Design and Space Planning	4	2	0	2	As per the admission criteria	Nil
DSC RMDA 101						

Learning Objectives

- Comprehend concepts, processes and techniques pertaining to planning and design of buildings and interior spaces.
- Understand conventional and contemporary methods of design and the best design practices employed for designing comfortable spaces.
- Identify the basic concepts pertaining to planning & design of buildings.
- Learn application of building bye-laws in designing buildings.

Learning Outcomes

The students would be able to:

- Comprehend the prudent use of conventional and contemporary building materials.
- Follow the use of resource efficient methods and techniques for building design and enhancing occupants' comfort.
- Understand human habitation as part of the ecosystem.
- Develop a holistic understanding of human settlements and their socio-cultural aspects.
- Adapt traditional knowledge systems & vernacular architecture for optimizing building efficiency.

THEORY

(Credits 2; Hours 30)

UNIT I: Human Settlements, Space planning and Design concepts

5 Hours

The unit highlights human settlements' ecological, socio-cultural, and structural aspects, focusing on vernacular architecture, local materials, and techniques.

- Concept and characteristics of human settlements
- Factors impacting human settlements and its ecology

- Socio-cultural aspects of human settlement
- Vernacular architecture: traditional building structures, local materials and resources

UNIT II: Understanding Concepts in Space Planning & Design

The unit covers the concepts in planning spaces, building design and resource efficiency.

- Structural components of a building, Services in sustainable buildings
- Latest building bye-laws & codes of practice: NBC and MPD, Physical Planning and Zoning-concept of land use, zoning and neighborhood
- Resource efficiency of building materials, Indices of indoor comfort, Passive building design, Energy efficient building design and rethinking techniques (HVAC, energy efficient lighting systems, water efficient systems)

UNIT III: Interior Project Construction

12 Hours

7 Hours

The unit covers elements of interior finishes and building services, focusing on their construction, types, materials, and applications.

- Partition, paneling and false ceiling Construction of paneling; Types of Panelling full partition, part
 partition, construction of partitions; Materials used for paneling-ply, glass, gypsum, P.O.P, partition
 types
- Flooring
- Sanitary ware Various types of sanitary ware and their use; Types of layouts concepts in modern day toilet interiors; Materials & finishes colour, texture & pattern.
- Lighting Different types of lighting for interiors and exteriors; Lighting fixtures

UNIT IV: Project Estimation

6 Hours

The unit covers material specifications, cost estimation, budgeting, proposals, tenders, and effective plan implementation to meet deadlines.

- 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)

- 1. Survey on concepts in modern day interiors materials & finishes
- 2. Create concept plans for interior designing of a selected area.
- 3. Dimensioning through use of metric and architectural scale
- 4. Resource Mapping of a selected area
- 5. Constructing layout plan & elevation of residential interior spaces
- 6. Floor plan of Studio apartment/ Bedroom/ Living room with elevation plan/ section plan of the same; Create 3D views of the plans (Manual/CAD)
- 7. Preparation of a ceiling plan
- 8. Preparation of wall panelling/partition.
- 9. Preparation of electrical layout plan.
- 10. Preparation of plumbing layout plan indicating various fittings and fixtures of water supply and

- sanitary installations.
- 11. Survey on concepts in modern day interiors materials & finishes
- 12. Preparing budgetary estimates and costing of interior materials, lights, fixtures etc. of a selected project.

Essential Readings

- National Building Code of India. (2016). Bureau of Indian Standards.
- Varghese, P. C. (2015). Building materials (2nd ed.). New Delhi: PHI Learning Private
- Tipnis, A. (2012). *Vernacular Traditions: Contemporary Architecture*. The Energy and Resources Institute.
- Kumar, S. (2010). *Building construction* (20th ed.). New Delhi, India: Standard and Distributors.
- Neufert, Ernst. Architect's Data. 3rd ed., Blackwell Publishing, 2008.

Suggested Readings

- Chudley, R., Greeno, R., & Kovac, K. (2023). *Building Construction Handbook* (12th edition); Routledge.
- Randhawa, T. S. (2022). *Vernacular Architecture of India: Traditional Residential Styles and Spaces.* INTACH (Indian National Trust for Art and Cultural Heritage).
- Varghese, P. C. (2022). *Building Materials and Construction*. Prentice Hall India Learning Private.
- Master plan for Delhi: With the perspective for the year 2041. (2021). DDA, New Delhi
- Ching, D. K. (2020). Building Construction Illustrated. Wiley.

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

DISCIPLINE SPECIFIC CORE COURSE DSC RMDA 102: RESOURCE MANAGEMENT AND SUSTAINABILITY

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Criteria of the Course	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(II any)
Resource Management and Sustainability	4	2	0	2	As per the admission criteria	Nil
DSC RMDA 102						

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

The students would be able to:

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

THEORY (Credits 2; Hours 30)

UNIT I: Introduction to Sustainable Development

8 Hours

This unit lays thrust on 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: Developmental Issues and Resource Use

8 Hours

This unit highlights 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

UNIT III: Sustainable Management of Key Resources

8 Hours

This unit deals with sustainable management of energy, water, waste, and air through strategies like star labelling, rainwater harvesting, and air quality monitoring.

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

UNIT IV: Sustainable Practices by Industry and Green Buildings

6 Hours

This unit deals with sustainable practices by industry and green buildings.

- Sustainable practices by industry
- CSR initiatives
- Green buildings and green building rating systems

PRACTICAL

(Credit 2; Hours: 60)

1. 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
- Green building materials

2. Energy Management

- Understanding electricity bills: components and calculations
- Understanding BEE star labels as an initiative towards sustainable energy consumption

- Energy auditing
- Portfolio/Survey on renewable energy products available in the market/ Energy efficient lighting fixtures

3. Air, Water and Waste Management

- Air/noise/water testing, AQI applications and websites
- Water auditing/ Rainwater harvesting/ Water efficient fixtures
- Green modes of transportation, E-vehicles: components and calculations
- Composting for sustainable waste management
- Case studies on waste management/ Biogas plants/ Waste to energy plants/ Waste water management/ Waste composting

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*. New Delhi: Blackswan Publications.
- Somayaji, G., & Somayaji, S. (2009). *Environmental concerns and sustainable development: some perspectives from India*. New Delhi: TERI Publication.
- Sundar, I. (2006). *Environment and Sustainable Development*. New Delhi: 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.

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

DISCIPLINE SPECIFIC CORE COURSE DSC RMDA 103: MARKETING MANAGEMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(11 411)
Marketing Management DSC RMDA 103	4	3	0	1	As per the admission criteria	Nil

Learning Objectives

- To impart an understanding of the conceptual framework, scope and importance of marketing management.
- To build an understanding of the macro and micro environment of organisations and their role in coping with changing market scenario.
- To impart knowledge regarding importance and techniques of market research.
- To create an understanding about dealing with competition in the market and managing marketing communication.

Learning Outcomes

The students would be able to:

- Develop an understanding of the importance and scope of marketing.
- Understand the changing macro and micro environment of organizations and importance of market research.
- Develop an understanding of the competitive strategies in marketing.
- Understanding the role of marketing communication and its effectiveness.

THEORY (Credits 3; Hours 45)

UNIT I: Understanding Marketing Management

12 Hours

This unit lays thrust on marketing scope, company orientations, macro environment analysis, marketing mix and new product development.

• Importance and scope of marketing

- Traditional vs. digital marketing
- Company orientations towards markets and marketing
- Functions of marketing, marketing management tasks
- Adapting marketing to new economy

UNIT II: Capturing Marketing Insights

12 Hours

This unit highlights capturing marketing insights in terms of gathering information, scanning the environment, new product development and segmenting the markets.

- Gathering information and scanning the environment
- Analyzing the macro environment
- Forecasting and demand measurement
- New product development-challenges and process
- Creating customer value, satisfaction and loyalty
- Segmenting consumer markets, market targeting

UNIT III: Dealing with Competition

13 Hours

This unit deals with competitor analysis, competitive strategies and service marketing.

- Identify and analyse competitors, competitive strategies for marketing
- Building strong brands- creating brand equity, brand positioning, differentiation strategies
- Product life-cycle marketing strategies
- Shaping market offerings, developing brand strategies, meeting customer satisfaction
- Product classifications, product and brand relationship
- Characteristics of services, marketing strategies for service firms, Managing service quality, differentiating services

UNIT IV: Marketing Communication

8 Hours

This unit throws light on effective marketing communication.

- Role of marketing communication
- Designing effective marketing communication
- Managing mass communication: Advertising, sales promotions and public relations
- Managing Personal Communication: direct marketing and personal selling

PRACTICAL (Credits 1; Hours 30)

1. **Brand comparison** - Brand comparisons of products and services in terms of their marketing strategies, tools used by them for brand building and generating brand, find

- out their strengths and weaknesses and suggest suitable marketing strategies to increase their market share.
- **2. E-commerce** Assessment and critical analysis of online retailing websites/applications with focus on visibility, user interface, experience, ease of transaction etc. Developing an e-tailing prototype.
- 3. **Case Studies** Using Case study approach (using both secondary and primary data) to develop an understanding of marketing strategies used by large, medium and small companies with emphasis on marketing strategies, marketing mix used, marketing budgets, media use, creating customer value and cultivating customer relationships.
- 4. **Visual Merchandising** To study visual merchandising of different stores during different seasons/times of the year.
- 5. **Marketing Strategies and Promotional Aids** To critically evaluate marketing strategies (digital and others) adopted by various product and service brands. To develop marketing strategy (digital and others) and design promotional aids for an existing/hypothetical brand.

Essential Readings

- Kotler, P., & Stigliano, G. (2024). *Redefining Retail: 10 Guiding Principles for a Post-Digital World.* Wiley.
- Daum, C., & Bartonico, M. (2023). *Marketing Management Essentials You Always Wanted To Know*. Vibrant Publishers.
- Kotler, P., Keller, K. (2016). *Marketing Management*, Pearson, New Delhi, 15th edition ISBN:978-81-317-3101-7
- Kotler, P., Keller, K. L., Koshy, A., & Jha, M. (2013). *Marketing Management*, 14th Edition. Pearson Education
- Baines, Fill, Sinha & Page. (2013). *Marketing*. Oxford University Press, New Delhi, Asian Edition, ISBN: 0-19-807944-3

Suggested Readings

- Kotler, P., Armstrong, G., Agnihothri, P. Y., & Haque, E. U. (2011). *Principles of Marketing*. Pearson, New Delhi, 13th edition, ISBN:978-81-317-3101-7
- Kotler P, Keller K.L., Koshy A, Jha M. (2006). *Marketing Management A South Asian, Perspective*, Pearson Education.
- Kotler, P. (2004). Marketing Management 11th ed. Pearson Education.
- Michael, J. E., Bruce, J. W. and Williom, J. S. (13th Edition, 2004). *Marketing Management*. Tata McGrawHill, New Delhi.

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE RMDA 101: CAPACITY DEVELOPMENT FOR SUSTAINABILITY

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course Lecture Tutorial Practical			Eligibility Criteria	Pre-requisite of the Course (if any)
Capacity Development for Sustainability DSE RMDA 101	4	2	0	2	As per the admission criteria	Nil

Learning Objectives

- To provide an understanding of the conceptual framework, scope, and significance of capacity building and organizational capacity development.
- To build proficiency in designing and implementing capacity-building initiatives for sustainable development.

Learning Outcomes

The students would be able to:

- Develop an understanding of the concepts related to capacity building and its role in sustainable development.
- Acquire skills to design, develop, and implement capacity-building initiatives for sustainable development.
- Critically analyze interventional strategies of organizational capacity development

THEORY (Credits 2; Hours 30)

Unit I: Conceptual Framework and Organizational Learning

6 Hours

- Introduction to Capacity Building
- Capacity Building and Policy Development
- Theories of Change

Unit II: Capacity Building for change

7 Hours

- Organizational Flexibility and Change
- Knowledge Generation and Acquisition

• Technical Skills, Goal-Oriented focus

Unit III: Organizational Capacity development

7 Hours

- Inter-organizational Relations: Building partnerships and networks, fostering trust, communication, and collaboration among stakeholders.
- Leadership Development
- Organizational Culture

Unit IV: Interventional Strategies for Sustainable Development

10 hours

- Targeting and Building Critical Mass
- Training Need Assessment (TNA)
- Training Methodologies
- ICT for Sustainable Development
- Training Evaluation
- Conflict Resolution and Negotiation
- Funding Mechanisms

PRACTICAL (Credits 2; Hours 60)

- 1. Critical evaluation of capacity development programs Analyze the effectiveness of development initiatives using real case studies and live projects.
- 2. Exploration of 'Lab-to-Land' and 'Land-to-Lab' approaches Examining practical application.
- 3. Training Need Assessment Identify and apply tools to determine skill gaps and training requirements of different stakeholders.
- 4. Training methodologies Develop and apply creative and engaging training methodologies for effective learning.
- 5. Development of ICT-based learning materials for sustainable development Assessment, development and implementation of ICT materials to support capacity development.
- 6. Training evaluation techniques Assess the outcomes and effectiveness of training programs.
- 7. Design, development & implementation of capacity development programmes Formulate and execute programs for enhancing knowledge, skills and perception.
- 8. Strategies for resource mobilization & fundraising Survey of the sources of financial support for the programs. Development of proposal for raising funds and other resources for developmental initiatives.
- 9. Field visits Organize visits to live projects to gain real-world insights.
- 10. Monitoring & Evaluation (M&E) framework Establish systems for tracking training progress and assessing impacts.
- 11. Skill training Plan and conduct trainings for soft skill development.
- 12. Documentation of good practices Case studies of good practices of capacity development programs.

13. Advocacy & networking for institutionalizing capacity building programmes – Promote and build alliances to integrate capacity development efforts into institutional structures.

Essential Readings

- Leininger, J. (2023). The Power of Capacity Building: Creating Sustainable Change. Routledge.
- Bours, D., McGee, R., & Vargas, C. (Eds.). (2022). Capacity Development in Practice: Working with Complexity. Practical Action Publishing.
- United Nations Department of Economic and Social Affairs (UNDESA).
 (2021). Thematic Report on Capacity Building for the 2030 Agenda for Sustainable Development.
- Thistlethwaite, J., & Dichter, T. (2021). Monitoring and Evaluation for Capacity Development: A Practical Guide. Earthscan.
- Joshi, A. (2020). Knowledge Management for Sustainable Development: Tools and Techniques. Sage Publications.

Suggested Readings

- Preskill, S., & Brookfield, S. D. (2020). Learning as a Way of Leading: Lessons from the Field. Jossey-Bass.
- Blumenthal, B. (2003). *Investing in Capacity Building: A Guide to High-Impact Approaches*. Routledge.
- James, V. U. (2018). *Capacity Building for Sustainable Development*. CAB International.
- Kenny, S., Clarke, M. (Eds.) (2010). *Challenging Capacity Building: Comparative Perspectives*. Palgrave Macmillan UK.
- Bemmerlein-Lux, F., & Bank, P. (2011). Lessons Learnt & Tools Applied: A Working Book on Capacity Building Approaches in India. GIZ.
- Bamberger, M., & Chevalier, J. (2010). *The Capacity Building Handbook: A Guide for Practitioners in Sustainable Development*. GIZ.
- Horton, D., & Mackay, R. (2003). *Developing Effective Capacity Building Programs*. Oxford University Press.
- Williams, T., & Goodwin, T. (2015). *Capacity Development for Organizational Learning*. Routledge.
- Swanson, R. A., & Holton, E. F. (2001). *Foundations of Human Resource Development*. Berrett-Koehler Publishers.
- Hamel, G., & Prahalad, C. K. (1994). *Competing for the Future*. Harvard Business Review Press.

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE RMDA 102: HUMAN CENTERED DESIGN 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 the Course (if any)
Couc		Lecture	Tutorial	Practical		(11 4113)
Human Centered Design & Ergonomics DSE RMDA 102	4	2	0	2	As per the admission criteria	Nil

Learning Objectives

- To sensitize students about the importance of ergonomics and its daily life applications.
- To understand the components influencing worker inputs.
- To develop knowledge of functional design and workplace equipment arrangement.
- To identify human and workplace factors contributing to ergonomic hazards.
- To cultivate skills in identifying product and space design problems in the workplace.

Learning Outcomes

The students would be able to:

- Comprehend the concept, history, and significance of ergonomics in design.
- Recognize the scope of ergonomics in professional environments.
- Develop skills in taking anthropometric measurements for various workstations.
- Understand techniques for conducting time & motion and energy studies.
- Evaluate and design workstations and equipment based on their functional effectiveness.

THEORY (Credits 2; Hours 30)

UNIT I: Introduction to Human Factors and Ergonomics

6 Hours

This unit covers ergonomics concepts, models, human-centered design and occupational safety in work environments

- Ergonomics concept, significance, history, application of Ergonomics in daily life
- Ergonomic models, methods, tools and techniques
- Human-Centered Design- Design Thinking concept and methodology
- Occupational safety and health at workplace Applications of ergonomics in different work

environments

UNIT II: Anthropometry & Biomechanics

6 Hours

This unit covers anthropometry in design, its types and applications, kinesiology and biomechanics.

- Anthropometry History and its application in interior designing for different work areas and workers
- Types of anthropometry
- Anthropometric application in design development and evaluation
- Kinesiology and biomechanics, human leverage system and its mechanical benefits, biomechanics and posture for various tasks

UNIT III: The User Component

8 Hours

This unit highlights bio-mechanics, human components including- physical, temporal, cognitive and affective factors.

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

UNIT IV: Workplace and Equipment Design

10 Hours

This unit deals with workplace design, work study methods, indoor comfort indices, and human-machine interface, including controls and displays.

- 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

PRACTICAL (Credits 2; Hours 60)

- 1. Basic Anthropometric measurements of a selected demography
- 2. Time and motion study
- 3. Energy study Physiological cost of workload
- 4. Prepare a floor plan for a selected type of kitchen- Floor Plan 1
- 5. Prepare elevation plan for a selected type of kitchen- Elevation Plan 1
- 6. Prepare a floor plan for a selected type of kitchen- Floor Plan 2
- 7. Prepare elevation plans for a selected type of kitchen-Elevation Plan 2
- 8. Indices of internal comfort-Testing suitability of selected environmental factors at a workplace
- 9. Ergonomic Assessment and Occupational safety analysis of Workplaces-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
- 10. Designing workstation/equipment suitable to the selected occupation

Essential Readings:

- Korhan, O., Odebiyi, D., Arinze, U., Okafor, C., Erick, P., Tumoyagae, T., Masupe, T., Walsh, E., Carnahan, H., Kaya, Ö., Fallaha, M., Murat, Z., & Zeeshan, Q. (2022). *Ergonomics new insights*. In IntechOpen eBooks.
- Tosi, F. (2019). *Design for Ergonomics*. Springer Nature.
- Karwowski, W. (2019). Handbook of Standards and Guidelines in Ergonomics and Human Factors. CRC Press.
- Bridger, R. (2017). *Introduction to Human Factors and Ergonomics*. CRC Press.
- Steidl, R.E. & Bratton, E.C. (1968). Work in the Home. John Wiley & Sons Inc.

Suggested Readings:

- Majchrzycka, K. (2020). Head, eye, and face personal protective equipment: New Trends, Practice and Applications. CRC Press.
- Podgórski, D. (2020). New opportunities and challenges in occupational safety and health management. CRC Press.
- Singh, L. P. (2018). Work study and ergonomics. Cambridge University Press.
- Hedge, A. (2016). Ergonomic Workplace Design for Health, Wellness, and Productivity. 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.
- Salvendy, G. (2012). *Handbook of Human Factors and Ergonomics*. John Wiley & Sons.
- 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.
- Chakrabarti, D. (1997). *Indian Anthropometric Dimensions for Ergonomic Design Practice*. National Institute of Design.

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE RMDA 103: ORGANIZATIONAL BEHAVIOUR AND 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 (if any)
Couc		Lecture	Tutorial	Practical		(ii uiij)
Organizational Behaviour and Development DSE RMDA 103	4	2	0	2	As per the admission criteria	Nil

Learning Objectives

- To get acquainted with the determinants of intra-individual, inter-personal and intergroup behavior in organizational setting.
- To get equipped with the behavioral skills in managing people at work.

Learning Outcomes

The students would be able to:

- Understand Workplace Behavior & Culture.
- Develop Leadership & Teamwork Skills.
- Enhance Change Management & Organizational Growth.
- Improve Communication & Decision-Making.

THEORY (Credits 2; Hours 30)

UNIT I: Introduction to Organizational behavior

6 Hours

- Concept, nature, and scope of organizational behaviour
- Models of organizational behaviour
- Relationship of organizational behaviour to other fields
- Challenges and opportunities in OB

UNIT II: Foundations of Individual Behaviour

8 Hours

- Perception: definitions and influencing factors
- Personality: determinants, theories, and assessment tools (e.g., Big Five, MBTI)
- Attitudes: components, formation, and change
- Learning: theories, process, organizational applications
- Motivation: theories, applications in organizations

UNIT III: Group Behaviour and Team Dynamics

- 8 Hours
- Concepts of groups and teams: definitions, formation, and cohesiveness
- Group development and norms
- Communication: process, barriers, and effectiveness
- Leadership: styles, theories, and leadership in groups
- Conflict: types, sources, management strategies
- Power and Politics in organizations

UNIT IV: Organizational Change and Development

8 Hours

- Organizational structure and culture: types, impact, and management
- Organizational change: models, processes, and resistance
- Organizational development: concepts, interventions, and strategies
- Work-life balance, and sustainability in organizational settings
- Emerging trends: globalization, workforce diversity, remote work

PRACTICAL (Credits 2; Hours 60)

Case study analysis/Live projects/Simulations/Exercises/Presentations/Surveys on the following aspects:

- 1. Self Assessment: Case studies analysis of five broad dimensions of personality (openness, conscientiousness, extraversion, agreeableness, and neuroticism) and their implications for workplace behavior,
- 2. Self Assessment Tools: Assessing personality through tools like MBTI/DISC and discuss their uses and limitations in organizational settings.
- 3. Attitudes and Perception: To understand how attitudes and perceptions influence behavior and decision-making at the workplace through organizational case studies, ABC model of attitudes (affective, behavioral, cognitive)
- 4. Organizational Structure- Analyzing an organization for its structure, chain of command, departmentalization, centralization & decentralization.
- 5. Workplace Communication: Communication flow mapping for formal and informal communication channels within a group of an organization.
- 6. Conflict Resolution Analyzing and resolving workplace conflicts through conflict scenario role-play and demonstrate one of the **conflict resolution styles.**
- 7. Team Building Techniques and Group Dynamics: Simulations and exercises for building teams
- 8. Leadership styles: Identify and evaluate leadership styles by observing a manager or through leadership videos.
- 9. Motivation at work: Analyze real-life or simulated cases to apply motivation theories such as Maslow's, Herzberg's, or McClelland's.
- 10. Dynamics of Organizational Behaviour: Organizational Culture Survey Design and administer a survey to assess the culture of a real or hypothetical organization.
- 11. Organizational Change, Stress-Stressors and management of work life balance
- 12. Organizational Development- Understanding organizational development interventions

- and change management through real-life or hypothetical case studies.
- 13. Organizational Effectiveness assessing organizational frameworks like Mskinsey 7S framework or Baldridge criteria for performance, benchmarking, TQM, Six-sigma.

Essential Readings

- Gregory, Moorhead and Ricky W. Griffin. (2022) *Organizational Behaviour*. *1*st ed. AITBS Publishers and Distributers,
- Luthans, Fred. (2000) Organizational Behaviour. 8th ed. New York: McGraw Hill
- Newstorm, John W. and Keith Davis, (2021) *Organizational Behaviour: Human Behaviour at Work*, 10th ed. Tata McGraw-Hill
- Robbins, Stephen P; (2000). *Organizational Behaviour*, 9th ed. New Delhi: Prentice Hall
- Aswathappa, K. (2024). *Organizational Behaviour.14th Ed.* Himalaya Publishing House

Suggested Readings

- Kast, F.E. and Rosenweig, J.E. (1985) Organization and Management: A System and Contingency Approach. New York: McGraw-Hill
- Herbert, T.(2008) *Dimension of Organizational Behavior*, New York: Macmillan
- Agarwal, R D, (2007) Organization and Management, Tata McGraw Hill
- Srivastava, SK, (2009), Organization Behaviour and Management, Sarup and sons
- Chandan, J S,(2010), Organization Behaviour 3rd Ed.

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE RMDA 104: DESIGNING INTERIORS AND STYLING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
Designing Interiors and Styling DSE RMDA 104	4	2	0	2	As per the admission criteria	Nil

Learning Objectives

- To identify the historical evolution of architecture and interior design.
- To analyze and differentiate between various design styles and themes.
- To practice and specify the components of an interior space, including ceilings, walls, floors, furniture, and furnishings.
- Develop design solutions for different room types based on specific themes.

Learning Outcomes

The students would be able to:

- Apply historical and theoretical knowledge of interior design principles to create functional and aesthetically pleasing spaces.
- Develop creative design solutions, incorporating various styles, themes, and components like furniture and finishes, to meet specific client needs or project briefs.
- Evaluate and select appropriate materials, furniture, and furnishings based on their properties, cost, and suitability for the intended design style and function.
- Communicate design concepts effectively through visual presentations, including mood boards, floor plans, elevations, and perspective drawings.

THEORY (Credits 2; Hours 30)

UNIT I: Historical Perspective and Design Styles

8 Hours

This unit highlights architecture's impact on interior design, highlighting historical styles and contemporary trends shaping modern interiors.

- Introduction to the history of architecture and its influence on interior design.
- Exploration of major historical periods and their characteristic design styles (e.g., Classical, Gothic, Renaissance, Baroque, Art Deco, Modernism).

• Overview of contemporary design trends and movements.

UNIT II: Themes and Styles in Interior Design

8 Hours

The unit covers various interior design styles and theme development.

- Detailed study of various interior design styles (e.g., Minimalist, Scandinavian, Industrial, Bohemian, Traditional, Contemporary, Eclectic).
- Understanding the principles of theme development and application in interior design.

UNIT III: Colour theories and Principles of planning

6 Hours

The unit covers various colour theories and principles of space planning and layout.

- Color schemes used in various interior design styles and themes.
- Principles of space planning and layout.

UNIT IV: Components of Interior Spaces

8 Hours

This unit deals with ceiling types, wall finishes, flooring materials, furniture styles, and furnishings, emphasizing their role in design ambiance.

- Ceilings: Types, materials, and design considerations.
- Walls: Finishes, textures, and decorative treatments.
- Floors: Materials, patterns, and installation methods.
- Furniture: Styles, materials, construction, and placement.
- Furnishings: Textiles, lighting, accessories, and their role in creating ambiance.

PRACTICAL

(Credits 2; Hours 60)

- 1. Hands-on exercises in creating mood boards for selected design themes and styles using specific materials (e.g., fabric swatches, paint chips, images)- Mood board 1
- 2. Hands-on exercises in creating mood boards for selected design themes and styles using specific materials (e.g., fabric swatches, paint chips, images)- Mood board 2
- 3. Prepare a project on various historical styles and contemporary trends.
- 4. Designing a living room based on selected themes and styles.
- 5. Designing a bedroom based on selected themes and styles.
- 6. Designing a kitchen based on selected themes and styles.
- 7. Designing and sketching furniture pieces for specific spaces and styles.
- 8. Conduct a survey on different furniture items, analyzing their design, materials, and functionality.
- 9. Conduct a survey on different furnishings items and analyze the materials and suitability for various purposes.
- 10. Prepare a furnishing plan for a selected room based on a particular theme.

Essential Readings

• Ching, F. D. K. (2015). *Architecture: Form, Space and Order* (4th ed.). New Jersey:

- John Wiley & Sons Inc.
- Kennedy, J. (2021). *Launch Into Interior Design: A Beginner's Guide to the Industry*. Kennedy Literary Agency.
- Leslie, F. (2000). Designs for the 20th Century Interiors. Victoria & Albert Museum.
- Poore, J. (1995). *Interior Color by Design: A Design Tool for Architects, Interior Designers, and Homeowners*. Betterway Books.
- Ramstedt, F. (2020). The Interior Design Handbook. Particular Books.

Suggested Readings

- Diamonstein-Spielvogel, B., & Diamonstein, B. (1982). *Interior Design, the New Freedom*. Rizzoli International Publications.
- Grimley, C., & Love, M. (2018). *The Interior Design Reference & Specification Book Updated & Revised: Everything Interior Designers Need to Know Every Day.*Rockport Publishers Incorporated.
- Neufert, E. (2008). Architect's data (3rd ed.). Blackwell Publishing.
- Pile, J. (2012). Interior Design: A Comprehensive Guide. Harry N. Abrams, Inc.

SEMESTER II

DISCIPLINE SPECIFIC CORE COURSE DSC RMDA 201: SUSTAINABLE BUILT ENVIRONMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
Sustainable Built Environment	4	3	0	1	As per the admission criteria	Nil
DSC RMDA 201						

Learning Objectives

- To develop an understanding of the concept of sustainable habitat, its components and growth.
- To build an understanding of the policies and programs for sustainable habitat.
- To familiarize the students with energy and resource use by buildings and net zero buildings.
- To develop an understanding of green building guidelines and norms.

Learning Outcomes

The students would be able to:

- Appraise the concept and importance of sustainable habitat, policies and programs for sustainable habitat.
- Comprehend the resource use by buildings, impact of buildings on the environment.
- Understand concept, criteria and implementation of green building guidelines and norms.

THEORY (Credits 3; Hours 45)

UNIT I: Sustainable Habitat

15 Hours

This unit lays thrust on sustainable habitats, their importance, components, growth, and related policies and rating systems.

- Concept of sustainable habitat- meaning, importance and need
- Impact of built environment on natural resources and environment

- Components and growth of sustainable habitat
- Policies and programs for sustainable habitat national urban housing and habitat policy, national rating system for green buildings, national mission for sustainable habitat

UNIT II: Building and Resources

15 Hours

This unit highlights energy and resource use in buildings, including conservation, sustainable materials and resource audits.

- Energy and resource use by buildings sustainable and otherwise, energy intensive components of buildings, buildings as resource guzzlers
- Energy efficiency and energy conservation in sustainable habitat
- Material use, water sensitive design, waste water treatment
- Resource audit of buildings focus on energy and water auditing

UNIT III: Green Building Rating Guidelines (GRIHA)

8 Hours

This unit introduces the global and Indian green building rating guidelines, focusing on ECBC and GRIHA.

- Meaning and concept; Green rating guidelines present globally
- Basic guidelines and norms in India, ECBC code
- GRIHA: Basics of GRIHA, background, footprint and registration process, GRIHA rating systems – background, documentation and implementation, criteria details, GRIHA case studies and success stories

UNIT IV: Green Building Rating Guidelines (LEED)

7 Hours

This unit introduces the global green building rating guidelines focusing on LEED and other emerging green building rating guidelines.

- LEED: Basics of LEED USGBC and LEED IGBC, Background, footprint and registration process, LEED rating systems background and implementation, credit details, LEED case studies and success stories
- Other emerging green building rating guidelines in India

PRACTICAL (Credits 1; Hours 30)

1. Resources in Buildings

- Basic calculations of resource consumption in buildings (like energy consumption, water consumption, landscape water demand etc.).
- Energy and water auditing of buildings.

- Calculation of Energy Performance Index (EPI).
- Calculation of rainwater harvesting potential.

2. Green Building Rating Guidelines

- Understanding and compilation of the basic terms under ECBC/GRIHA/LEED.
- Critical evaluation and analysis of green buildings through case study approach to assess the green initiatives undertaken.
- Compilation of strategies and technologies to implement credits/criteria for an indepth understanding of the various green building rating systems.
- Preparation of IEC material on current topics related to sustainable habitat.
- Field visits to various green buildings.

Essential Readings

- Indian Green Building Council. (2023). *Introduction to Green Buildings & Built Environment*. BS Publications.
- LEED. (2023). LEED Green Associate Candidate Handbook. USGBC.
- GRIHA. (2021). *GRIHA Version 2019*. GRIHA Council and The Energy and Resources Institute.
- Karuppu, K. (2019). Green Building Guidance: The Ultimate Guide for IGBC Accredited Professional Examination. Notion Press.
- Roychowdhury, A., & Somvanshi, A. (2014). Building Sense: Beyond the Green Façade of Sustainable Habitat. Centre for Science & Environment.
- Yudelson, J. (2007). *Green Building A to Z: Understanding the Language of Green Building*.

Suggested Readings

- Redclift, M. (2005). Sustainable Development (1987-2005): An Oxymoron Comes of Age. Wiley Interscience.
- Kubba, S. (2009). *LEED Practices, Certification, and Accreditation Handbook*. Butterworth-Heinemann.
- Trivedy R. K. (2004). *Handbook of Environmental Laws, Acts, Guidelines, Compliances and Standards, 2nd Ed.* Hyderabad: Book Seller.

DISCIPLINE SPECIFIC CORE COURSE

DSC RMDA 202: PROJECT MANAGEMENT IN DYNAMIC ENVIRONMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
Couc	Code		Tutorial	Practical		(II ally)
Project Management in Dynamic Environment	4	3	0	1	As per the admission criteria	Nil
DSC RMDA 202						

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

The students would be able to:

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

THEORY (Credits 3; Hours 45)

UNIT I: INTRODUCTION TO PROJECT MANAGEMENT

10 Hours

This unit lays thrust on scope and importance of project selection, planning, budgeting, risk mitigation and management

- Project Integration Management
- Project Lifecycle
- Project Selection
- Measuring Project Success

UNIT II: THE PROJECT MANAGER

10 Hours

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

- Role and characteristics
- Ethics
- Team Building and Leadership
- Conflict Management

UNIT III: PROJECT ORGANIZATION

10 Hours

The unit introduces students to the foundational principles of project management, focusing on planning, budgeting, and risk management.

- Project Planning
- Budgeting
- Cost Estimation
- Risk Management

UNIT IV: PROJECT MONITORING AND CONTROL

15 Hours

The 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 (Credits 1; Hours 30)

- 1. **Project Planning and Selection:** This focuses on the fundamentals of project planning and selection through hands-on experience. Students will work **on real-time/live projects** to explore how to identify viable project opportunities, evaluate their potential, and develop structured project plans. Emphasis is placed on applying practical tools and techniques, such as feasibility analysis and scope definition.
- 2. **Project Scheduling:** Creating, managing, and controlling project schedules using real tasks, dependencies, and timelines—applying tools like Gantt charts, network diagrams, and scheduling software.
- 3. **Cost Management:** Budget planning and cost baseline of the sample project, doing Earned value analysis, identifying causes (e.g., scope creep, underestimation), and proposing corrective actions.
- 4. **Resource Management:** Applying the principles of resource allocation and leveling in real or simulated projects, ensuring optimal use of people, tools, and time without overloading or underutilizing resources by identifying and listing resources for a sample

project, Categorize them into human, material, and equipment, making Work Breakdown Structure (WBS) to assign team members to each task, Build a resource sheet in Excel or MS Project, Creating Gantt chart to Assign resources and make Resource Histograms.

- 5. **Project Evaluation**: Evaluating the effectiveness, efficiency, impact, and sustainability of completed or ongoing projects by listing what should be evaluated (cost, quality, timeliness, satisfaction), Defining Key Performance Indicators for a sample project, Designing of a simple evaluation survey and interview questions for stakeholders, analysing Cost Performance Index, Schedule Performance Index and Variance reports, analyze feedback data from survey results, report findings (bar graphs, pie charts) and Preparation of actionable recommendations for future projects.
- 6. **Request for Proposal (RFP):** Critical evaluation of RFPs. Drafting RFPs for sustainable development initiatives.

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) (7th ed.). American National Standard, ANSI/PMI 99-001-2021. Project Management Institute.
- Meredith J. R., Shafer S. M., and Mantel S. J. Jr. (2021). Project Management: A Managerial Approach, (11th ED.). Wiley.
- Project Management Institute. (2013). A guide to the project management body of knowledge (PMBOK® guide) (5th ed.). ISBN: 9781935589679. Project Management Institute.

Suggested Readings

- Erickson T., Khatri P. V. (2015). Project Management, Global Vision Publishing House ISBN-13: 8193981839-879
- Horine, G. (2017). Project Management Absolute Beginner's guide (4th ed.) Que Publishings
- Jain, G.L. Project Management: A Managerial Approach, DND Publications, ISBN-10. 9380929765 · ISBN-13. 978-9380929767
- Nagarajan, K. (2010). Project Management (6th ed.) New Age International Pvt. Ltd.
- Project Management- Prasanna and Chandra, Tata McGraw Hill

DISCIPLINE SPECIFIC CORE COURSE DSC RMDA 203: PRODUCT DESIGN AND DEVELOPMENT STRATEGIES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit	t Distribution Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
Product Design and Development Strategies DSC RMDA 203	4	2	0	2	As per the admission criteria	Nil

Learning Objectives

- To enhance the understanding of students regarding materials and their thoughtful application in the creation of products and services.
- To develop an understanding of the constructional details of products, with a focus on furniture and accessories.
- To help students apply ergonomic principles in product design for improved user performance and comfort.

Learning Outcomes

The students would be able to:

- Recognize design challenges and suggest innovative, sustainable solutions for product development.
- Develop schematic drawings, construction details, and product prototypes with an emphasis on upcycling, refurbishment, and recycling.

THEORY (Credits 2; Hours 30)

UNIT I: Introduction to Product Design

6 Hours

This unit covers the concept, scope, importance, approaches, and challenges of product design, along with success factors, design philosophies, and the role of product designers.

- Concept, scope, importance and challenges
- Different approaches to Product design
- Design philosophies of famous designers
- Role of Product Designers

UNIT II: Creativity and Innovative Thinking

6 Hours

This unit covers the concept of creativity, innovation in product design, challenges in context of design and traditional design practices.

- Theories, models and Techniques of creativity, Diffusion and innovation for new product ideas
- Need for product development, types of product and components, concerns and issues in the context of design
- Exploration of elements of design in the context of a product and its environment- form, function and aesthetic
- Insight into traditional design practices

UNIT II: Product Development Process

10 Hours

This unit explores various product development processes including innovation, materials, product development and prototyping.

- Design methods
- Stages in design process
- Integrated approach to new product development
- Understanding material behaviour for furniture construction, product design and aesthetics properties and finishes including new & recycled materials.
- New and Composite materials application in product design and impact on environment, structural strength of materials and products made from them
- Prototyping

UNIT III: Design Research

8 Hours

This unit highlights market potential assessment, research methods, product life cycle, packaging, branding, and evaluating sustainable product service systems.

- Assessing market potentials for new products
- Market research, design research and user research
- Study of product life cycle and its relevance in new product design
- Packaging, Advertising and branding.
- Product service system evaluation for a sustainable design

PRACTICAL (Credits 2; Hours 60)

- 1. Case study of selected products-success stories
- 2. Design Tools and Software: CAD, graphic design tools, 3D printing etc.
- 3. Product-Life cycle mapping of any consumer product
- 4. Idea sketching/mock-ups, clustering of ideas for concept development, refinement and detailing
- 5. Survey on new, composite and conventional materials available for product design
- 6. Analyzing selected materials for their suitability in product design
- 7. Designing the product on 3D software
- 8. Prototyping of a product on 3D printer
- 9. Product prototyping using suitable material
- 10. Design portfolio indicating the processes for product development

Essential Readings

- Stark, J. (2023). *Product Lifecycle Management*. Springer Nature.
- Mukhopadhyay, P. (2022). Ergonomics Principles in design: An Illustrated Fundamental Approach. CRC Press.
- Jang, S., Thaler, M., & Frederick, M. (2020). 101 Things I Learned® in Product Design School. Crown.
- Green, W., & Jordan, P. W. (2019). *Human factors in product design: Current Practice and Future Trends*. CRC Press. (Original work published 1999).
- Penty, J. (2019). *Product design and sustainability: Strategies, Tools and Practice*. Routledge.

Suggested Readings

- Mattson, C., & Sorensen, C. (2017). Fundamentals of product development: Creating Desirable and Transferable Designs. CreateSpace Independent Publishing Platform.
- Eppinger, S., & Ulrich, K.(2015). *Product design and development*. McGraw-Hill Higher Education.
- Aspelund, Karl (2006). The Design Process. New York: Fairchild Publications Inc.
- Jones, J. Christopher. (1996). *Design Methods: Seeds of Human Factors*. New York: John Wiley & Sons
- Macleod, Dan. (1995). *The Ergonomics Edge: Improving Safety, Quality and Productivity*. New York: Nostrand Reinhold.
- Doren, Harold V. (1954). *Industrial Design A Practical Guide to Product Design and Development*. New York: McGraw-Hill Book Company.

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HSC 201: ADVANCED RESEARCH METHODS IN HOME SCIENCE

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
3000		Lecture	Tutorial	Practical		(11 4113)
DSE HSC 201: Advanced Research Methods in Home Science	4	3	0	1		Nil

Learning Objectives

- To explain the types and approaches to research.
- To describe the principles and process of quantitative research approach.
- To describe the principles and process of qualitative research approach.
- To elaborate the critical ethical issues for planning, conducting and publishing research.

Learning Outcomes

The students would be able to:

- Describe the types, paradigms and approaches to research.
- Employ the principles and process of quantitative research approach.
- Appraise the principles and process of qualitative research approach.
- Apply the principles of ethics in designing, executing and reporting of research.
- Formulate a research proposal in any specialized area of Home Science.

THEORY (Credits 3; Hours 45)

UNIT I: Research: Paradigms, approaches and process

10 Hours

This unit introduces the concept, types, designs, paradigms, approaches and process of research. The unit also highlights the concerns of reliability and validity in research.

- Definition and objectives of research
- Importance, scope and types of research
- Research design: Concept and significance

- Paradigms of research
- Research approaches: Quantitative, qualitative and mixed methods
- Reliability and validity in research methods and concerns
- The Research Cycle

UNIT II: Principles and process of quantitative research approach

12 Hours

This unit focuses on various research designs, methods of sampling and data collection techniques followed in quantitative research approach. It also emphasizes on the levels of measurement of data and errors in quantitative research

- Components, types and applications of research designs in quantitative research approach: Observational and experimental designs
- Concept of sampling, sampling methods Probability and non-probability sampling in quantitative research
- Methods of data collection in quantitative research
- Measurement in research, scales and errors in measurement
- Errors in inference bias and confounding

UNIT III: Principles and process of qualitative research approach

14 Hours

This unit introduces students to qualitative research methodologies, exploring their philosophical foundations, data collection methods, analysis techniques and ethical considerations.

- Philosophical underpinnings: Constructivism, interpretivism and critical theory
- Approaches to qualitative research: Ethnography, phenomenology, case study research, grounded theory and action research.
- Sampling in qualitative research
- Data collection methods and techniques: Observation, interview, focus group discussion and case study.
- Data management and analysis in qualitative research: Thematic, narrative and discourse analysis

UNIT IV: Research and publication ethics

9 Hours

This unit addresses issues related to research integrity, responsibilities of researchers and ethical standards for publishing academic work.

- Definition and importance of research ethics: Ethical concerns for research in the field of Home Science
- Ethical principles in Research planning and execution: Informed consent, anonymity, confidentiality and privacy, voluntary participation, safety and dignity of participants, transparency
- Data integrity and ethical data collection: use of appropriate methodology, ensuring accuracy and validity, managing sensitive data, avoiding misuse of information

- Bias and conflict of interest in research
- Forms of research misconduct: Fabrication and falsification of data and plagiarism
- Ethical issues in research publication: Selective reporting, misrepresentation of data, salami slicing and predatory publications

PRACTICAL (Credits 1; Hours 30)

- 1. Critical review of a published original research article in any area of Home Science.
 - Identification and documentation of strengths and weaknesses of various components of the selected research article
- 2. Sampling in Research
 - Probability and non-probability sampling techniques
- 3. Formulation of a data collection tool
- 4. Referencing and Citation in Scientific Writing
 - Importance and different styles of referencing
 - Concept of in-text and post-text referencing
 - Digital tools for referencing
- 5. Plagiarism in research
 - Concept and types of Plagiarism
 - Technical writing using quotations, paraphrasing and summarizing
 - Plagiarism detection software
- 6. Formulation of a research proposal
 - Identification of a research problem/thrust area in any specialization of Home Science
 - Literature review related to the identified research problem
 - Proposal formulation giving timeline for conducting the research study

Essential Readings

- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research* (4th ed.). Cengage Learning.
- Kothari, C. R., & Garg, G. (2023). *Research Methodology: Methods and Techniques*. New Age International Pvt Ltd, New Delhi.
- Kumar, R. (2019). *Research Methodology: A Step-by-Step Guide for Beginners*. 5th Ed. Sage Publications, New Delhi.
- UGC (2021) *Academic Integrity and Research Quality*. New Delhi: UGC, Retrieved from https://www.ugc.ac.in/e-book/Academic%20and%20Research%20Book WEB.pdf

Suggested Readings

• Aggarwal, J. & Sabharwal, V. (2025). Essentials of Research Methodology- A Practical Manual. Elite Publishing House, New Delhi.

- Bernard, H. R. (2000). Social research methods: Qualitative and quantitative approaches. Thousand Oaks, CA.: Sage.
- Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). SAGE Publications.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). SAGE Publications.
- Silverman, D. (2020). *Qualitative research* (5th ed.). SAGE Publications.

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE RMDA 202: CONSUMER BEHAVIOUR AND SUSTAINABILITY

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(11 4115)
Consumer Behaviour and Sustainability	4	3	0	1	As per the admission criteria	Nil
DSE RMDA 202						

Learning Objectives

- To develop an understanding of underlying concepts and issues in consumer behaviour.
- To evaluate the factors affecting consumer behaviour.
- To study the various stages of consumer decision process.
- To study market research for understanding the needs and wants of target consumers.
- To study consumer behaviour in the context of sustainability.

Learning Outcomes

The students would be able to:

- Understand the concepts and issues associated with consumer behaviour.
- Outline the factors affecting consumer behaviour.
- Understand the various stages of consumer decision process.
- Carry out market research for understanding needs and wants of consumers.
- Understand consumer behaviour in the context of sustainability.

THEORY (Credits 3; Hours 45)

UNIT I: Introduction to Consumer Behaviour

10 Hours

This unit lays thrust on the definition, scope and nature of consumer behaviour.

- Definition, Nature, Scope of consumer behaviour
- Consumer Behaviour's Applications in Marketing
- The Interdisciplinary Nature of Consumer Behaviour

UNIT II: Models of Consumer Behaviour

10 Hours

The unit throws light on the various models explaining consumer behaviour.

- Consumer Needs and Motivation
- Consumer Personality, Perception, Learning and Attitudes
- Models of consumer behaviour

UNIT III: Consumer Buying Behaviour and Market Research

14 Hours

This unit highlights the consumer buying behaviour in terms of factors affecting consumer behaviour, consumer adoption process and buying decision process. The unit also throws light on market research.

- Factors influencing consumer behaviour, Consumer buying behaviour in the digital world
- Consumer Adoption Process-stages and factors influencing
- Diffusions of innovation
- Types of buying decision behaviour, Buying decision process
- Conducting market research

UNIT IV: Consumer Behaviour and Sustainability

11 Hours

This unit deals with green and environmentally conscious consumer behaviour and green marketing practices.

- Green Consumerism and Eco-awareness
- Environmentally Conscious Consumer Behavior
- Green Marketing Concepts, Strategies and Future Trends, Innovations in Green Marketing Practices
- Sustainable Production and Consumption

PRACTICAL (Credits 1; Hours 30)

PRACTICAL (Credits 1; Hours 30)

- 1. Market research proposals Developing market research proposals on consumer buying behaviour, effect of promotional schemes on consumer purchase, consumer satisfaction and opinion regarding selected products/brands/marketing strategies, online purchasing etc.
- 2. Case studies on consumer behavior, green consumerism, green marketing etc.
- 3. Surveys for understanding consumer buying behavior
- 4. Designing digital campaigns on issues related to consumer behavior and green

- marketing
- 5. Understanding models of consumer behavior
- 6. Understanding consumer buying behaviour process for any product or service: smart phone, apparels, life insurance, online shopping, socially responsible products, luxury and branded products etc.

Essential Readings

- Kumar, R., & Krishnamurthy, A. (2024). *Advertising, Brand and Consumer Behaviour: The Indian Context*. India: Pearson Education.
- Sethna, Z., & Blythe, J. (2024). *Consumer Behaviour*. Sage Publications India Pvt. Ltd
- Kumar, D. (2023). Basics of Consumer Behaviour. Sahitya Bhawan Publications.
- Kotler, P. T., Armstrong, G., & Agnihotri, P. (2022). *Principles of Marketing, 17th Edition*. Pearson Education.
- Mothersbaugh, D. L., Hawkins, D. I., & Kleiser, S. B. (2022). *Consumer Behavior: Building Marketing Strategy*. McGraw Hill Education (India) Private Limited.

Suggested Readings

- Solomon, M., R., & Panda, T. K. (2020). *Consumer Behaviour, 13th Edition*. India: Pearson Education.
- Kumar, S. R. (2017). *Consumer Behaviour: The Indian Context (Concepts and Cases)*, 2nd Edition. Pearson Education.
- Sahney, S. (2017). Consumer Behaviour. Oxford University Press.
- Schiffman, L. G., Kanuk, L. L., & Kumar, S. R. (2015). *Consumer Behaviour, 11th Edition*. Pearson Education India.
- Krishna, R. (2014). Consumer Behaviour. Oxford University Press.

DISCIPLINE SPECIFIC ELECTIVE COURSE

DSE RMDA 203: FACILITIES OPERATION AND SERVICES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		(II uiij)
Facilities Operation & Services DSE RMDA 203	4	3	0	1	As per the admission criteria	Nil

Learning Objectives

- The course provides a thorough understanding of managing facilities and services.
- It emphasizes the importance of maintaining work areas to improve operational efficiency.
- Focuses on the operations and maintenance of facilities.
- Covers both soft services (e.g., cleaning, security) and engineering services (e.g., HVAC, electrical maintenance).
- It aims to enhance the core functions of an organization through effective facility management.

Learning Outcomes

The students would be able to:

- Comprehend various aspects of facilities maintenance and services, materials and accessories in indoor and outdoor environment.
- Understand the systems-operations management, quality control and project review techniques.
- Develop competence among students for professional practice in management of facilities.

THEORY (Credits 3; Hours 45)

UNIT I: Basics of Facilities and Services Management

14 Hours

This unit introduces the student to the facility management basics, including maintenance strategies, facility manager roles, cleaning techniques, and surface/space upkeep.

• Concept & Need for Facility Management- Focus on preventive and predictive

maintenance and understanding statutory compliances.

- Role of a Facility Manager- Key responsibilities and functions.
- Modern Cleaning Techniques- Introduction to cleaning materials, techniques, and equipment.
- Surface & Space Maintenance- Techniques for maintaining interior and exterior surfaces, including critical areas like walls, ceilings, doors, windows, furniture, and kitchen areas. Covers upkeep for furnishings, flooring, washrooms, laundry, and common/public spaces.

UNIT II: Operations & Maintenance of Facilities

16 Hours

This unit focuses on O&M processes, including in-sourcing vs. outsourcing, soft services coordination, and efficient engineering systems management.

- Operations Process- In-sourcing vs. outsourcing in O&M.
- Soft Services- Coordination of housekeeping, visitor management, asset and inventory management, work order management, and space management. Integration with BAS/BMS, vendor procurement, tenant billing, and SLA management.
- Engineering Services- Efficient operation of electrical systems (lighting, energy conservation), HVAC (air-conditioning & heating), plumbing (water treatment, pumps), waste management (STP/ATP), and safety systems (fire prevention, CCTV).

UNIT III: Advanced Management Techniques

10 Hours

This unit highlights data systems, project planning, quality management, and emerging trends.

- Information Systems- Data management, monitoring, and software for maintaining interiors.
- Project Management- Creating maintenance plans, budgeting, tendering, and monitoring work plans.
- Quality Management ISO specifications and SIPOC tool for process design and review.
- Futuristic Facility Management- Emerging trends and technologies.

UNIT IV: Maintenance of indoor and outdoor plants

5 Hours

This unit highlights the methods for selection, care and maintenance of indoor and outdoor plants.

- Selection of indoor and outdoor ornamental plants
- Landscaping components, styles of gardens
- Maintaining gardens: care of plants

PRACTICAL (Credits 1; Hours 30)

- 1. Survey of different finishes on surfaces of walls, ceilings and floors, doors and windows, furniture, furnishings and accessories. Analyze methods and mechanisms for cleaning and maintenance of facilities
- 2. Case Studies for critical evaluation of maintenance of individual and public areas with respect to services and facilities and preparing maintenance plans of the selected facility-residences (rural and urban); institutional / Government / NGO / Corporate; hotels and restaurants; hospitals; gymnasiums, health clubs and sports complexes; exhibitions and conferences
- 3. Lighting design, energy audit of lighting design
- 4. Maintenance of facilities and services using project review techniques such as SIPOC
- 5. Drafting professional service contracts for cleaning or maintenance
- 6. Designing customized facility inspection checklists

Essential Readings

- Roper, K. P., & Payant, R. P. (2022). *The Facility Management Handbook*. Amacom.
- Williams, J. (2022). Facilities Management Key Performance Indicators: For Commerce and Industry. Independently Published.
- Patil, A. P., & Savla, A. H. (2021). Facility Management: Indian & global best practices. Notion Press.
- Wiggins, J. M. (2020). Facilities Manager's Desk reference. John Wiley & Sons.
- Fediw, K. (2015). The manual of interior plantscaping: A guide to design, installation, and maintenance. Portland, OR: Timber Press.

Suggested Readings

- Kemp, R.; Zuijderwijk, L.; Weaver, P.; Seyfang, G.; Avelino, F.; Strasser, T.; Becerra, L.; Backhaus, J. &Ruijsink, S. (2015). *Doing things differently: Exploring transformative social innovation and its practical challenges* (TRANSIT Brief; 1)
- Garcia-Diaz, A. & Smith, J. M. (2008). *Facilities planning and design*. Upper Saddle River, NJ: Pearson Prentice Hall.
- Kapila, U. (2009). *Indian Economy since Independence* (19th Ed.). Academic Foundation.
- Mazumdar, D. & Sarkar, S. (2009). The employment problem in India and the phenomenon of the missing middle. Indian Journal of Labour Economics. Ministry of Information and Broadcasting e-book on Major Initiatives.
- Rhonda, P. & Pittman, R.H. (2009). A framework for community and economic development. In Rhonda, P. & Pittman, R.H (Eds.), *An introduction to community development*. New York: Routledge.

- Schaffer, R., Deller, C.S., & Marcouiller, W. D. (2004). *Community economics: Linking theory and practice*. Blackwell Publishing.
- Temali, M. (2002). *The community economic development handbook: Strategies and tools to revitalize your neighborhood.* Amherst H. Wilder Foundation.
- Kretzmann, J.P., & McKnight, J.L. (1993). *Building communities from inside out: A path toward finding and mobilising community assets.* ACTA Publications.

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

SKILL BASED COURSES

SKILL BASED COURSE SBC RMDA 01: CAD FOR SPACE PLANNING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
3000		Lecture	Tutorial	Practical		(ii uiij)
CAD for Space Planning SBC RMDA 01	2	0	0	2	As per the admission criteria	Nil

Learning Objectives

- Explain the role of software in design.
- Introduce fundamental space design principles.
- Teach the basics of 2D and 3D drawing software.
- Develop skills in creating and presenting 2D and 3D plans.
- Familiarize students with basic rendering techniques to enhance the drawings.
- Introduce students to use of AI in creating plans

Learning Outcomes

The students would be able to:

- Confidently use CAD for interior design, qualifying them for positions with interior designers, architects, and real estate companies.
- Possess a foundational understanding that prepares them for further study in advanced space design and 3D modeling software.

PRACTICAL (Credits 2; Hours 60)

1. Introduction to Computer Aided Design 2D Software

- Introduction to two-dimensional software AutoCAD.
- Setting up AutoCAD
- Introduction to AutoCAD (basic tools and bedroom floor plan designing)
- Basics of AutoCAD (elevation design/single line drawings and standard dimensions)
- Using simple commands to create simple geometrical pattern
- Drawing two dimensional patterns with different methods

2. Computer Aided Design 3D Software

- Setting up Sketch up/ 3d software and its functions
- Introduction to modelling and annotation tools

- Introduction to drawing and editing tools
- Image to Sketch up 3D modelling
- AutoCAD to Sketch up 3D modelling
- Understanding plug-ins, groups and components 3D warehouse

3. Preparation of Plans

- Designing of Staircase, False ceiling, Wall-panel
- Bedroom designing
- Camera setting
- Rendering

4. Use of AI in interior design

- Introduction to AI
- Difference between AR and VR
- Use of AI for designing interiors some common software

Essential Readings

- Cline, L. (2023). *Sketchup for interior design: 3D visualizing, designing, and space planning* (2nd ed.). John Wiley & Sons.
- De Chiara, J. (2017). *Time-saver standards for interior design and space planning* (2nd ed.). McGraw-Hill Education.
- Tal, D. (2013). Rendering in SketchUp: From modeling to presentation for architecture, landscape architecture, and interior design. John Wiley & Sons.
- Ramadhanty, D. M., & Handayani, T. (2020). The effect of computer-based 3D visualization I. IOP.
- Shoukry, Y., & Pandey, J. (2020). *Practical Autodesk AutoCAD 2021 and AutoCAD LT 2021: A no-nonsense, beginner's guide to drafting and 3D modeling with Autodesk AutoCAD*. Packt Publishing.

Suggested Readings

- Abbott, D. (2007). AutoCAD secrets every user should know. Wiley Publishing, Inc.
- Grabowski, R. (2019). AutoCAD for dummies. John Wiley & Sons.
- Fu, F. (2018). In *Design and analysis of tall and complex structures*. Butterworth-Heinemann.
- Gindis, E. (2012). *Up and running with AutoCAD 2012* (2nd ed.). Pearson.
- Adobe Creative Team. (2002). Adobe Photoshop 7.0 classroom in a book. Adobe Press.
- Benton, B. C., & Omura, G. (2020). *Mastering AutoCAD 2021 and AutoCAD LT 2021*. John Wiley & Sons.
- Kirkpatrick, B., Kirkpatrick, J., & Assadipour, H. (2021). *AutoCAD for interior design and space planning*. Pearson.

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

SKILL BASED COURSE SBC RMDA 02: ICTs FOR SUSTAINABLE DEVELOPMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		
ICTs for Sustainable Development SBC RMDA 02	2	0	0	2	As per the admission criteria	Nil

Learning Objectives

- To appreciate the conceptual framework, scope, and significance of ICTs.
- To understand the potential of both information and communication technologies for sustainable development
- To critically analyse the existing business models (public, private sector, PPP, civil society) and other applications in sustainable development with respect to technology, infrastructure, capacity building, human resource etc.
- To inculcate skills in using ICTs for sustainable development

Learning Outcomes

The students would be able to:

- Develop an understanding of the concepts related to the ICTs for sustainable development.
- Critically analyse how ICTs can be best applied for sustainability challenges.

PRACTICAL (Credits 2; Hours 60)

- 1. Introduction to ICTs for Sustainable Development: Case studies/visits to the communities to understand different types and role of ICTs in Sustainable Development.
- 2. Information and Communication Technologies: Working on software, the physical infrastructure, satellite, wireless solutions, telecommunication technologies, mobiles, fixed line, internet and world-wide web, community radio, technology-user interface, design of relevant ICT products and services.

- 3. Building Knowledge Societies: Understanding of stakeholders and target communities; information needs, Traditional vs. contemporary knowledge systems, information processing and retrieval; means of communication in different areas through live projects.
- 4. ICT Applications: Case Studies on applications of ICTs in various aspects of sustainable development.
- 5. ICT for Development in India: Portfolio/research on policy and institutional framework in India, e-governance, ICT Models, Mobiles for Development Experience sharing by ICT for Development practitioners.
- 6. ICT in Education: Creating e- learning module using digital educational tools aimed for sustainable development.
- 7. Digital Inclusion and Smart Governance: Analyze e-governance platforms that support sustainable development (e.g., digital services for rural/ urban areas)
- 8. ICT4D Implementation: Developing an ICT4D Project, Critical Success factors for technology diffusion and use, Constraints in adoption, the role of national policies, institutional framework, multi stakeholder partnerships, role of private sector.
- 9. Environmental Monitoring with ICT: Use mapping tools or mobile apps for tracking.
- 10. Green ICT Practices: Use of Energy-Efficient ICT for Optimization.

Essential Readings

- Bours, D., McGee, R., & Vargas, C. (Eds.). (2022). Capacity Development in Practice: Working with Complexity. *Practical Action Publishing*.
- Joshi, A. (2020). Knowledge Management for Sustainable Development: Tools and Techniques. *Sage Publications*.
- Leininger, J. (2023). The Power of Capacity Building: Creating Sustainable Change. *Routledge*.
- Thistlethwaite, J., & Dichter, T. (2021). Monitoring and Evaluation for Capacity Development: A Practical Guide. *Earthscan*.
- United Nations Department of Economic and Social Affairs (UNDESA). (2021). Thematic Report on Capacity Building for the 2030 Agenda for Sustainable Development.

Suggested Readings

- Bamberger, M., & Chevalier, J. (2010). The Capacity Building Handbook: A Guide for Practitioners in Sustainable Development. *GIZ*.
- Bemmerlein-Lux, F., & Bank, P. (2011). Lessons Learnt & Tools Applied: A Working Book on Capacity Building Approaches in India. *GIZ*.
- Blumenthal, B. (2003). Investing in Capacity Building: A Guide to High-Impact Approaches. *Routledge*.
- Hamel, G., & Prahalad, C. K. (1994). Competing for the Future. *Harvard Business Review Press*.
- Horton, D., & Mackay, R. (2003). Developing Effective Capacity Building Programs. *Oxford University Press*.
- James, V. U. (2018). Capacity Building for Sustainable Development. *CAB International*.
- Kenny, S., Clarke, M. (Eds.) (2010). Challenging Capacity Building: Comparative Perspectives. *Palgrave Macmillan UK*.
- Preskill, S., & Brookfield, S. D. (2020). Learning as a Way of Leading: Lessons from the Field. *Jossey-Bass*.
- Swanson, R. A., & Holton, E. F. (2001). Foundations of Human Resource Development. *Berrett-Koehler Publishers*.
- Williams, T., & Goodwin, T. (2015). Capacity Development for Organizational Learning. *Routledge*.

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

SKILL BASED COURSE SBC RMDA 03: EVENT DESIGN AND STRATEGIES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
3040		Lecture	Tutorial	Practical		(
Event Design and Strategies SBC RMDA 03	2	0	0	2	As per the admission criteria	Nil

Learning Objectives

- To understand the event design and management:
- To design the event layout and understand logistics
- To develop competencies in event marketing and promotion
- To understand techniques and strategies for successful event planning

Learning Outcomes

The students would be able to:

- Understand the concept and planning of event management.
- Design the layout and logistics of the event
- Manage event financials and costing
- Create and implement event marketing strategies
- Evaluate the success of an event

PRACTICAL (Credits 2; Hours 60)

1. Event Analysis & Strategic Planning:

Analyze events, assess KPIs, and apply design thinking to create event concepts.

- Understanding event types & contexts: Identify corporate, cultural, social, and entertainment events through case studies
- SWOT analysis of the event: Evaluate event strengths, weaknesses, opportunities, and threats
- Key Performance Indicators (KPIs) & Success Metrics: Analyze real-world event data to measure engagement, attendance, and ROI
- Event Conceptualization & Theme Development: Apply design thinking principles to create an event blueprint.

2. Event Design, Execution, and Evaluation

Plan event logistics, budgeting, and marketing while ensuring sustainability and effective execution.

- Logistics and space planning: Venue selection and design, seating, estimated audience, catering, team delegations
- Budgeting and financial planning: Financial control plan including budgeting and cost estimations
- Marketing & Sponsorship Strategy: Design branding materials (posters, flyers, digital content) and develop an advertising strategy (social media, email, etc.), procuring sponsorship for events
- Sustainability in Events: Implement eco-friendly practices, minimizing waste and optimizing resources.
- Manage the logistics of executing the event: coordinating vendors, prepare event timelines, handling PR/media, managing celebrities or resource persons
- Evaluation: Collect feedback (surveys, interviews), analyze KPIs (attendance, engagement, satisfaction), and refine strategies based on analysis for future events.

Essential Readings

- Getz, D. (2020). Event management & event tourism (4th ed.). Cognizant Communication Corporation.
- Goldblatt, J. (2020). Special events: Creating and sustaining a new world for celebration (8th ed.). Wiley.
- Berridge, G. (2021). Events design and experience (2nd ed.). Routledge.
- Van der Wagen, L., & Carlos, J. (2019). Event management: For tourism, cultural, business and sporting events (7th ed.). Pearson Education.
- Allen, J., O'Toole, W., Harris, R., & McDonnell, I. (2018). Festival and event management (4th ed.). Wiley.

Suggested Readings

- Bladen, C., Kennell, J., Abson, E., & Wilde, N. (2019). *Events management: An introduction* (3rd ed.). Routledge.
- Pendergast, D., & Wheeler, K. (2019). *The event marketing handbook: Beyond logistics and planning.* McGraw-Hill Education.
- Swarbrooke, J., & Horner, S. (2019). Business of tourism (4th ed.). Routledge.
- Tassiopoulos, D. (2020). Event management: A developmental and managerial approach (2nd ed.). Juta and Company Ltd.
- Felsenstein, D., & Jayaratne, N. (2020). The global events industry: Case studies of managing international events. Springer.

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

SKILL BASED COURSE SBC RMDA 04: PROGRAM MONITORING AND EVALUATION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)			
Couc		Lecture	Tutorial	Practical					
Program Monitoring and Evaluation	2	0	0	2	As per the admission criteria	Nil			
SBC RMDA 04									

Learning Objectives

- To understand the standards and procedures for results-based monitoring and evaluation of programs.
- To develop proficiency in monitoring and evaluating developmental programs.

Learning Outcomes

The students would be able to:

- Develop a comprehensive monitoring and evaluation plan
- Efficiently utilize data analysis software
- Build program results levels and construct a program using logical frameworks
- Use indicators and targets to measure success
- Monitor and track performance indicators over the life of a program
- Conduct impact evaluation and evaluate a program against key measures

PRACTICAL (Credits 2; Hours 60)

Case study analysis /Live projects /Simulations /Exercises /Presentations / Surveys on the following aspects:

- 1. Fundamentals of Monitoring and Evaluation
 - Create a concept map comparing different types of evaluation (formative, summative, developmental).
 - Analyze an NGO's project report and identify monitoring vs evaluation elements.
 - Simulate an introductory stakeholder meeting to discuss M&E importance.

2. Program Analysis

- Conduct a SWOC analysis of a Sustainable development initiative.
- Map stakeholders and their roles in a given development project.
- Present a comparative analysis of two similar programs based on performance data.

3. Design of Results in Monitoring & Evaluation

- Create a Results Framework for an institutional water management program.
- Develop a Problem Tree and turn it into an Objective Tree.
- Roleplay: Pitch your results-based design to a funding agency.

4. Monitoring & Evaluation Indicators

- Design SMART indicators for a youth employment program.
- Evaluate a program's indicators for relevance and feasibility.
- Use a case to classify indicators as input, output, outcome, or impact.

5. Logical Framework Approach

- Construct a Logical Framework Matrix (LogFrame) for a women's empowerment program.
- Identify assumptions and risks in a given LogFrame case.
- Peer review and revise a flawed LogFrame draft.

6. Theory of Change

- Draft a Theory of Change for a sanitation campaign using backward mapping.
- Compare ToC vs LogFrame using a real-world example.
- Group project: Create a visual ToC map and justify your causal links.

7. Monitoring & Evaluation Systems

- Design a basic M&E system for an education initiative (include tools, roles, data flow).
- Critically review an existing system and suggest improvements.
- Roleplay internal audit to check if the system is functioning.

8. Monitoring & Evaluation Planning

- Draft an M&E plan for a disaster relief project.
- Create a Gantt chart outlining M&E activities and responsibilities.
- Group simulation: Manage M&E for a multi-stakeholder program and adjust the plan mid-way based on changes.

9. Program Performance Evaluation

- Conduct a mock mid-term evaluation of a clean water project.
- Develop KPIs and benchmark them using available data.
- Present findings in a dashboard-style format with visualizations.

10. Monitoring & Evaluation Data Management

- Use Excel/SPSS/Google Sheets to input, clean, and analyze M&E data.
- Simulate a data quality assessment (DQA) for a program.
- Create a coding system for qualitative M&E interviews.

11. Monitoring & Evaluation Results Use and Dissemination

- Draft a policy brief using mock M&E findings.
- Create a results dashboard using Canva/Tableau/Excel.
- Simulate a dissemination meeting with stakeholders.

12. ICT in Monitoring and Evaluation

- Use KoboToolbox or ODK to design and deploy an M&E survey.
- Compare different ICT tools (e.g., DHIS2, SurveyCTO) for data collection.
- Record a video presentation or demo of how a digital tool enhances M&E.

13. Program Impact Assessment

- Design an impact assessment plan using a control and treatment group.
- Analyze a dataset to determine impact using a quasi-experimental design.
- Present a poster summarizing your findings and limitations.

14. GIS in Monitoring & Evaluation

- Use Google Earth or QGIS to map service delivery points of an NGO.
- Conduct spatial analysis using basic GIS tools to show program reach.
- Simulate a disaster response evaluation using GIS data to recommend resource allocation.

Essential Readings

- Bamberger, M., Rugh, J., & Mabry, L. (2019). *RealWorld evaluation: Working under budget, time, data, and political constraints* (3rd ed.). SAGE Publications.
- Kusek, J. Z., & Rist, R. C. (2004). Ten steps to a results-based monitoring and evaluation system: A handbook for development practitioners. The World Bank. https://doi.org/10.1596/0-8213-5823-5
- Patton, M. Q. (2021). Utilization-focused evaluation (5th ed.). SAGE Publications.
- Rogers, P. J. (2014). Theory of change: Methodological briefs Impact evaluation No. 2. UNICEF Office of Research Innocenti.
- World Bank. (2017). Impact evaluation in practice (2nd ed.). The World Bank.

Suggested Readings

• Chen, H. (2015). *Practical program evaluation*. (Vols. 1-0). SAGE Publications, Inc, https://doi.org/10.4135/9781071909850

- Gertler, P. J., Martinez, S., Premand, P., Rawlings, L. B., & Vermeersch, C. M. J. (2016). *Impact evaluation in practice* (2nd ed.). The World Bank.
- Hatry, H. P. (2020). *Performance measurement: Getting results* (2nd ed.). The Urban Institute Press.
- International Labour Organisation.. *Basic Principle of Monitoring and Evaluation*. https://www.ilo.org/media/436106/download
- OECD. (2019). Better criteria for better evaluation: Revised evaluation criteria definitions and principles for use. Organisation for Economic Cooperation and Development (OECD). https://www.oecd.org/dac/evaluation/revised-evaluation-criteria-dec-2019.pdf
- Scriven, M. (2016). *The logic of evaluation*. CREA Publishing.

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

GENERIC ELECTIVE COURSE GE 5 RESOURCES AND SUSTAINABILITY

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
Code		Lecture	Tutorial	Practical		(II any)
Resources and Sustainability	4	3	1	0	As per the admission criteria	Nil
GE 5					Citteria	

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

The students would be able to:

- 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.

THEORY (Credits 3; Hours 45)

UNIT I: Concept of Sustainable Development

12 Hours

This unit lays thrust on 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: Developmental Issues and Resource Use

12 Hours

This unit highlights 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

UNIT III: Sustainable Management of Key Resources

12 Hours

This unit deals with sustainable management of energy, water, waste, and air through strategies like star labelling, rainwater harvesting, and air quality monitoring.

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

UNIT IV: Sustainable Practices by Industry and Green Buildings

9 Hours

This unit deals with sustainable practices by industry and green buildings.

- Sustainable practices by industry
- CSR initiatives
- Green buildings and green building rating systems

TUTORIAL (Credit 1; Hours: 15)

1. Sustainable Development Initiatives

- Case studies on sustainable initiatives/CSR initiatives by industry/Green buildings
- Creation of awareness generation material for issues related to sustainable development
- Calculation of ecological and carbon footprint using various applications and websites

2. Energy Management

- Understanding electricity bills: components and calculations
- Understanding BEE star labels as an initiative towards sustainable energy consumption

- Energy auditing
- Energy efficient lighting fixtures

3. Air, Water and Waste Management

- Air/noise/water testing, AQI applications and websites
- Water auditing
- Rainwater harvesting
- Green modes of transportation, E-vehicles: components and calculations
- Case studies on waste management
- Biogas plants/ Waste to energy plants/ Waste water 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*. New Delhi: Blackswan Publications.
- Somayaji, G., & Somayaji, S. (2009). Environmental concerns and sustainable development: some perspectives from India. New Delhi: TERI Publication.
- Sundar, I. (2006). *Environment and Sustainable Development*. New Delhi: 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.

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

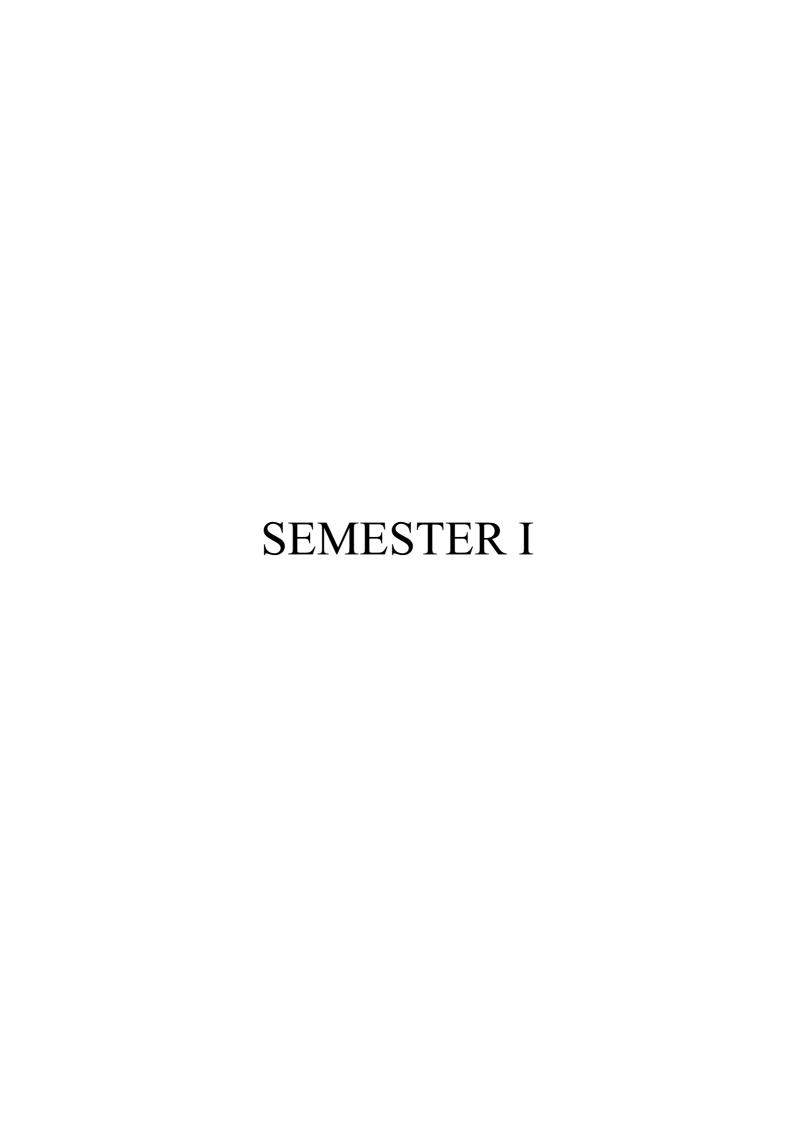
DEPARTMENT OF FABRIC AND APPAREL SCIENCE 2-Year MSc Curriculum under NEP COURSEWORK TRACK

DSC	DSC			DSE				SBC		Dissertation/Academic Project/Entrepreneurship
Paper Title		Credit		Paper Title		Credi		Paper Title	Credit	
(4 Credits each)	Dis Th	stributio Tu	on Pr	(4 Credits each)	Dis Th	stribut Tu	ion Pr	(2 Credits each)	Distribution Th Tu Pr	-
		1 4		SEMESTER		14			111 111 11	
Pick Al	13			Pick Any	2					
DSC FAS 101: Textile Finishing	2	0	2	DSE FAS 101: Textiles for Home and Hospitality	3	0	1			
DSC FAS 102: History of Textiles	3	0	1	DSE FAS 102: Garment Manufacturing Technology	3	0	1	Pick Any 1 from the list of odd semester courses listed in the table below		NIL
DSC FAS 103: Fashion Merchandising and Retailing	3	1	0	DSE FAS 103: Fashion Communication	2	0	2			
				SEMESTER I	Ι					
Pick Al	13			Pick Any	2					
DSC FAS 201: Dyeing and Printing-I	3	0	1	DSE HSC 201: Advanced Research Methods in Home Science	3	0	1	Pick Any 1 from the list courses listed in the		NIL
DSC FAS 202: History of Costumes	3	1	0	DSE FAS 201: Sustainability in Fashion	3	0	1			
DSC FAS 203: Advanced Pattern Making and Garment Construction-I	2	0	2	DSE FAS 202: Textile Conservation and Restoration	2	0	2			

					SEME	ESTER	RIII		
Pick Al	12			Pick Any	y 3				
DSC FAS 301: Advanced Textile Science	3	1	0	DSE HSC 301: 3 0 1 Statistics and Data Management 3 0					
DSC FAS 302: Advanced Pattern Making and Garment Construction -II	2	0	2	DSE FAS 301: Textile Design Development	2	0	2	Pick Any 1 from the list of odd semester courses listed in the table below	NIL
				DSE FAS 302: Global Couture	3	1	0		
				DSE FAS 303: Fashion Marketing	3	0	1		
				SEMESTER I	V		•		
Pick Al	12			Pick Any	y 3				
DSC FAS 401: Indian Handcrafted Textiles	3	0	1	DSE FAS 401: Commercial Fabrics	3	1	0		
DSC FAS 402: Dyeing and Printing-II	2	0	2	DSE FAS 402: Women's Wear: Concept to Creation	2	0	2	Pick Any 1 from the list of even semester	NIL
				DSE FAS 403: Technical Textiles	3	1	0	courses listed in the table below	
				DSE FAS 404: Psychology of Fashion	3	1	0		

List of Skill Based Courses:

ODD SEMESTER	EVEN SEMESTER
SBC FAS 01: Fashion Illustration: Techniques and Application	SBC FAS 02: Advanced Computer Aided Design
SBC FAS 03: Surface Design Techniques	SBC FAS 04: Fashion Styling
SBC FAS 05: Community Outreach in Textile and Apparel Sector	SBC FAS 06: Internship
SBC FAS 07: Internship	



DISCIPLINE SPECIFIC CORE COURSE DSC FAS 101: TEXTILE FINISHING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	ecture Tutorial Practical			(11 11113)
DSC FAS 101: Textile Finishing	4	2	0	2	As per admission criteria	Nil

Learning Objectives

- To gain knowledge of the chemistry, mechanism and application process of various textile finishes.
- To create awareness and understanding of the future trends in textile finishing.

Learning Outcomes

Students will be able to:

- Explain the chemistry and mechanism of action of application of various finishes.
- Describe the methods of application of finishes on different textile substrates.
- Illustrate the preparatory and special/functional finishes for various fabrics.
- Recognise and explain new advancements in the area of textile finishing.

THEORY (Credits 2; Hours 30)

UNIT I: Fundamentals of Textile Finishing.

4 Hours

In this unit, students will learn the foundational principles of textile finishing.

- Classification of textile finishes
- Methods of application practices and suitability for various fibre types (cellulosic, protein, synthetic)

UNIT II: Preparatory Processes in Textile Finishing.

6 Hours

In this unit, students will learn about the preparatory finishes for cellulosic, protein, and man-made fibres.

- Cellulosic- singeing, desizing, scouring, bleaching
- Protein- degumming, scouring, bleaching, carbonising

• Man-made- scouring, bleaching, heat-setting

UNIT II: Aesthetic and Functional Finishes

15 Hours

This unit explores the detailed chemistry, application methods, and evaluation techniques of significant aesthetic and functional finishes.

- Aesthetic finishes: Weighting, Softening and Stiffening finishes, Optical brightening agents and Special calendaring
- Functional finishes: Mercerisation, Chlorination, Water and Oil repellent finishes, Anti-shrink and stabilising finishes: Sanforisation, Crabbing, Decatizing, Crease resistant finishes, Antistatic finishes, Flame retardant finishes, Antimicrobial finishes, Moth proofing and UV resistant finishes

UNIT IV: Innovations in Textile Finishing

5 Hours

This unit explores the detailed chemistry, application methods, and evaluation techniques of functional finishes and few cutting-edge innovations transforming textile finishing.

- Microencapsulation
- Nanotechnology in finishing
- Other recent developments and sustainable practices

PRACTICAL (Credit 2; Hours 60)

UNIT I: Application of preparatory finishes on cellulosic fabrics

- Desizing of cotton fabric and its evaluation
- Scouring of cotton fabric and its evaluation.
- Bleaching of cotton fabric and its evaluation.

UNIT II: Application of finishes that alter Handle

- Application of softening agents on fabrics and their evaluation.
- Application of stiffening agents on fabrics and their evaluation.

UNIT III: Application of Functional finishes

- Mercerization of cotton fabric and its evaluation.
- Chlorination of wool and its evaluation.
- Application of flame retarding agents and their evaluation.
- Application of water repellent and oil repellent finishes and their evaluation.
- Application of anti-creasing finishes and evaluation of their efficacy.

Essential Readings

• Marsh, J.T. (1979) *An Introduction to Textile Finishing*, Bombay: B.I. Publications.

- Rastogi, D. and Chopra, S. (Eds.) (2017) Textile Science, India: Orient Black Swan Publishing Limited.
- Rouette, H.K. (2001) *Encyclopedia of Textile Finishing*, Volumes 1 to 3, Berlin: Springer.
- Schindler, W.D. and Hauser, P.J. (2004) *Chemical Finishing of Textiles*, The Textile Institute, England: Woodhead Publishing Ltd.
- Sekhri S. (2022) *Textbook of Fabric Science: Fundamentals to finishing, 4th ed.*, PHI Learning Pvt. Ltd. Delhi
- सेखड़ीं सीमा(2022), वस्त्र विज्ञान, PHI Learning Pvt. Ltd. Delhi

Suggested Readings

- Trotman, E. R. (1984) *Dyeing and Chemical Technology of Fibers*, Sixth Edition, England: Charles Griffin and Company Ltd.
- Vigo, T. L. (1994) *Textile Processing and Properties, Preparation, Dyeing, Finishing and Performance*, Amsterdam: Elsevier Science B.V.

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

DISCIPLINE SPECIFIC CORE COURSE DSC FAS 102: HISTORY OF TEXTILES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course
Code		Theory	Tutorial	Practical		(if any)
DSC FAS 102: History of Textiles	4	3	0	1		Nil

Learning Objectives

- To describe the diverse methods and processes involved in textile production.
- To examine the evolution of the rich history of textiles in ancient cultures.
- To analyse the historical development and cultural significance of textiles in Medieval and Early modern societies
- To analyze the transformative impact of industrialization and colonialism on global textile production, trade, and cultures, and evaluate their enduring legacies.

Learning Outcomes

The students would be able to:

- Recognise and explain various methods of textile production.
- Discuss the significance of textiles in ancient civilizations and their impact on modern society.
- Analyse the historical development and cultural significance of textiles in Medieval and Early modern societies
- Evaluate the impact of industrialization and colonialism on global textile production and trade

THEORY (Credits 3; Hours 45)

UNIT I: Textile Techniques

10 Hours

This unit lays thrust on history, tools and techniques of textile production techniques in the world.

- Felt and bark cloth
- Weaving
- Tapestry

- Rug weaving
- Knitting
- Netting knotting and crochet
- Embroidery
- Lace
- Dyeing and printing

UNIT II: Ancient Civilizations

12 Hours

This unit highlights the significance of textiles in ancient civilizations, including their production, trade, cultural meaning, and impact on societal development.

- Egyptian textiles and their role in ancient Egyptian society
- The significance of textiles in ancient Mesopotamia
- The development of silk production in ancient China
- Indian textiles in ancient India: the Indus Valley Civilization and beyond
- Textiles in ancient Greece and Rome: trade, fashion, and symbolism

UNIT III: Medieval and Early Modern Periods

12 Hours

This unit thrusts on the historical development and cultural significance of textiles in Medieval and Early Modern societies, including their production, trade, and impact on global economies and cultures.

- The impact of the Silk Road on global textile trade
- Medieval European textiles: wool, linen, and luxury fabrics
- The rise of cotton production in India and its global implications
- African textiles: traditional techniques and trade networks
- Indian block printing and textile trade during the Mughal Empire

UNIT IV: Industrialization and Colonialism

11 Hours

This unit delves into impact of industrialisation and colonialism on textiles around the world

- The Industrial Revolution and the mechanization of textile production
- The impact of colonialism on traditional textile industries in India and other colonies
- The development of synthetic dyes and their global adoption
- The rise of cotton imperialism: the global cotton trade and its consequences
- Indian textile industry during the British colonial era: decline and revival

PRACTICAL

(Credits 1; Hours 30)

Project on Regional and Cultural Studies

- 1. Indian sari: history, design, and cultural significance
- 2. Japanese kimono: history, design, and cultural significance
- 3. African American quilting: history, symbolism, and cultural heritage
- 4. Chinese embroidery: techniques, motifs, and cultural significance
- 5. Indian embroidery traditions: Phulkari, Kantha, and more
- 6. French Toiles de Jouy
- 7. English Chintz
- 8. Indonesian Resist dyes textiles
- 9. Tribal Textiles
- 10. Carpets of middle and far East
- 11. Indian textile industry in the 21st century: challenges, opportunities, and innovations

Essential Readings

- Forbes, R. J. (1969). Studies in Ancient Technologies, vol IV, Textiles, Leiden
- Gale, C., & Dhamija, J. (2010). The textile book: A comprehensive guide to textiles from around the world. Thames & Hudson, London.
- Gillow, J., & Sentance, B. (2008). World textiles: A visual guide to traditional techniques. Thames & Hudson, London.
- Harris, J. (Ed.). (2010). 5,000 years of Textiles (Rev. ed.). The British Museum Press. London.
- Kuhn, D. (2012). Chinese Silk: A Cultural History, Yale University Press
- Wilson, K. (2001). World textiles: A concise history. Thames & Hudson, London.
- Wood, F. (2004). The Silk Road: Two Thousand Years in the Heart of Asia. University of California Press

Suggested Readings

- Adams, L. S. (2016). Art: A brief history. Pearson Education. New York, NY.
- Gardner, H. (2016). Gardner's art through the ages: A global history. Cengage Learning. Boston, MA
- Ginsburg, M. (Ed.). (2004). The illustrated history of textiles. Studio Editions, London
- Gombrich, E. H. (1995). The story of art. Phaidon Press. London, England
- Lewis, E. (1953) *Romance Of Textile*, The McMillan Company, New York. (Classic- Out of Print)
- Schacter, R. (2013). The world atlas of street art and graffiti. Yale University Press.
- Seiler-Baldinger, A. (1994). Textiles: A classification of techniques. Calico Museum of Textiles, India.

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

DISCIPLINE SPECIFIC CORE COURSE DSC FAS 103: FASHION MERCHANDISING AND RETAILING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
DSC FAS 103: Fashion Merchandising and Retailing	4	3	1	0		Nil

Learning Objectives

- To give an overview of the retail environment of India
- To analyze the characteristics of various kinds of retail formats in India
- To understand the importance of retail location
- To elaborate on the merchandise management planning process in the retail industry
- To equip students with details of customer relationship management and buying practices
- To provide insight into store layouts and interiors as well as space management

Learning Outcomes

The students would be able to:

- Identify store types in the Indian retail industry
- Plan and control assortment and model stock plans for staple and fashion merchandise categories
- Select retail location and site for a specific retail store
- Create store layouts and plan elements of visual merchandising mix

THEORY (Credits 3; Hours 45)

UNIT I: Introduction to Fashion Retailing

13 hours

This unit introduces various types of retail formats and salient features of the retail industry of India

- Retail Environment, Trends & Indian Retail Industry
- Functions of a Retailer
- Types of retailers with reference to Retail mix: Department stores, full-line

discount stores, category specialists, hypermarkets, factory outlets, specialty stores, extreme value retailers

- Non-store channels, Multi-channel retail/ Omni retail
- Ownership Models: Independent, Corporate chains, Franchisees
- Customer Relationship Management (CRM)- Importance, Process, Customer Data Analysis and CRM Programs

UNIT II: Retail Location

9 Hours

This unit highlights various kinds of retail location, criteria for site selection and trade area analysis while selecting location for a store

- Retail locations: Freestanding sites, Central Business Districts, Main Street, Inner city, Shopping Centers, Lifestyle Centers, Mixed-use, Outlet Centers, Festival/ Theme Centers, Airports, Pop-up Stores, Store within a store
- Site Selection Factors: Economic conditions, Strategic fit, Competition, Operating Costs, Number of stores in an area, Economies of Scale, Cannibalization
- Factors affecting Site evaluation: Traffic Flow, Parking, Store Visibility, Adjacent Retailers, Restrictions and costs
- Trade Area Analysis: Primary, Secondary, Tertiary

UNIT III: Merchandise Management Planning Process

12 Hours

- Merchandise Category: Definition, Category width, depth and level of support, Category types- staple, fashion and seasonal, Forecasting Sales
- Category Management: Category Manager, Category Captain, Category Life cycle
- Performance Metrics: Profit Margins, Sales-to-Stock Ratio, GMROI, Inventory Turnover.
- Editing of Assortment Plan and Model Stock plan
- Merchandise Flow & Control: Staple &Fashion Merchandise, Setting Inventory Product Availability levels and Inventory Management
- Allocating merchandise to stores
- ABC analysis and 80-20 rule

UNIT IV: Merchandise Pricing and Store Setting

11 Hours

- Considerations in setting price
- Initial Mark-up and maintained Mark-up
- Pricing strategies
- Store Layout and Space Planning
- Store Components and Atmospherics
- Signage and Feature Areas

TUTORIAL (Credits 1; Hours 15)

Interactive discussions and store visits to acquire real-life experience of setting and operationalization of the fashion retail sector of India

- 1. Analysis of Store layouts
 - Discussion- Identifying store formats and associated visual merchandising strategies
 - Class Activity- Store visit to analyze store size, layout, fixtures, hotspots, windows, and atmospherics.
- 2. Multi-channel / Omni Channel retailing
 - Discussion- Analysis of retail brands that operate across multiple channels Class Activity- Comparative analysis of two or more channels using secondary data or virtual store assessments.
- 3. ABC analysis of SKU mix
 - Discussion Applying the 80-20 rule to rank and classify SKUs for assortment planning
 - Class Activity- Reviewing research papers or conducting hypothetical data analysis for practical understanding.
- 4. Multi- attribute model for evaluating vendors
 - Discussion Developing evaluation criteria by assigning ratings and weights to vendor attributes based on their importance.
 - Class Activity Defining attribute as per brand type and generate cumulative score for vendor selection

Essential Readings

- Clark.J (2020) Fashion Merchandising: Principles and Practice, 2nd Edition, Red Globe Pr
- Levy, M, Weitz, B.A. and Pandit, A. (2008)Retailing Management, Delhi: Tata McGraw Hill Education Private Limited.
- Kunz Grace.I, (2009)Merchandising: Theory, Principles and Practice, 3nd Edition, Bloomsbury Publishing
- Diamond, J., Diamond, E. and Litt, S.D. (2006), Fashion Retailing- A Multi-Channel Approach, Bloomsbury Publishing Inc.

Suggested Readings

- Boardman.R, Strak.R.P, Henninger C.E (2020) Fashion Buying and Merchandising- The fashion buyer in a digital society, Routledge Publishing
- Pegler, M. (2006) Visual Merchandising and Display, New York: Fairchild Publications Inc.

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 FAS 101: TEXTILES FOR HOME & HOSPITALITY

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(ii uiij)
DSE FAS 101: Textiles For Home & Hospitality	4	3	0	1		Nil

Learning Objectives

- To introduce the entire spectrum of textile products used in homes as well various sectors of hospitality industry.
- To describe parameters for selection, use, care and disposal of all textile categories used in home and hospitality.
- To impart an understanding of the latest technological developments in terms of fibres and finishes for textiles used in home and hospitality.
- To provide practical guidance for designing of textiles for specific rooms in the home with inspirations from Period Styles and the latest forecast trends.

Learning Outcomes

The students would be able to:

- Gain knowledge regarding various uses of textile made-ups in home and hospitality.
- Learn best practices for judicious selection use, care and disposal of textiles used for home and hospitality.
- Apply the impact of recent scientific innovations, new fibres and finishes on the aesthetic and functional aspects of textiles used in home and hospitality.
- Practice the creative designing of textiles for home and hospitality with inspiration from Period styles as well as directions from latest forecasting trends.

THEORY (Credits 3; Hours 45)

UNIT I: Introduction to Entire Spectrum of Textile Products Used n Homes as well as Various Sectors of Hospitality Industry 12 Hours

This unit lays thrust on enlisting various categories of textiles used in home and hospitality.

- Classification of textiles used in home (upholstery fabrics, window textiles, bed textiles, bathroom textiles, kitchen textiles, table linen, floor coverings, outdoor textiles)
- Textiles used in various sectors of hospitality such as; hospitals, hotel, modes of travel (air, automobile, rail, restaurants etc.)

UNIT II: Parameters (Aesthetic and Performance) for Selection, Storage, Use, Care and Disposal of Textiles for Home and Hospitality 14 Hours

In this unit, students will gain understanding of the various functional parameters essential for judicious selection of textiles used in interiors.

- Aesthetic and functional parameters for selection of textiles for home and hospitality (fibre type, colour and design, standard sizes, construction methods, finishes imparted, durability, cost etc.)
- Informative labelling and packaging
- Government regulations and standards
- Storage, use and maintenance of various product categories at domestic and commercial levels

UNIT III: Recent Scientific Innovations, New Fibres and Finishes of Textiles for Home and Hospitality 6 Hours

This unit deals with technological innovations, high performance materials and use of finishes for enhanced aesthetic and performance rating.

UNIT IV: Designing of Textiles for Home and Hospitality. 13 Hours

This unit deals with sources of inspiration for a designer involved with creating textile products used in home and hospitality.

- Period styles in home furnishings
- Forecasting trends for textiles used in home and hospitality.
- Elements and Principles of design, Structural and decorative design usage
- Collections of various designers and brands catering to textiles for home and hospitality.

PRACTICAL (Credits 1; Hours 30)

1. Selection of Textiles Used in Home and Hospitality

- Market survey of different categories of textiles used in home and hospitality (types, standard sizes, construction, performance, durability, aesthetics, price range etc.)
- Comparison of different brands (local / reputed) with respect to informative labelling and product packaging
- Compilation of swatches/ pictures of different fabrics used for interiors (woven, knit, non- woven, other methods of construction crochet, braiding, nets, laces etc.)

2. Designing of Textiles for Home and Hospitality

- Drawing inspiration from period styles
- Analysis of latest forecast trends
- Report on famous designers and key players (brands / outlets) dealing with furnishings
- Practical design exercises and preparing fabric decorations for different room types based on end use, size and type of room, type of arrangement, type of furniture, geographical location etc.

Essential Readings

- Das, Subrata (2010) Performance of Home Textiles, New Delhi, Woodland Publishing India Pvt Ltd
- Lebeau, Caroline (2004) Fabrics- the Decorative Art of Textiles, London, Thames and Hudson
- Seetharaman. P and Pannu, P (2019), Interior Design and Decoration, CBS Publishers & Distributors.
- Encyclopaedia of Fashion (1980), New York, Prentice Hall

Suggested Readings

- Howes, Karen (1997) Making the Most of Bedrooms, London, Conran Octopus
- Neiswand, Nonie (1998) Bedrooms and Bathrooms, London, Conran Octopus
- Ranall, Charles T. (2002) *Encylopedia of Window Fashions*, California, Randall International
- Wingate, Isabel B. (1949) Textile Fabrics and Their Selection, New York, Prentice Hall

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 FAS 102: GARMENT MANUFACTURING TECHNOLOGY

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(ii uiij)
DSE FAS 102: Garment Manufacturing Technology	4	3	0	1		Nil

Learning Objectives

- To gain knowledge of the structure, operations, and key functional areas within the garment industry.
- To learn the processes involved in garment production, spanning pre- production, production, and post-production stages.
- To become familiar with the materials, machinery, tools, and equipment used in garment manufacturing.

Learning Outcomes

The students would be able to:

- Learn the structure and functioning of the garment industry.
- Explain the steps involved in pre-production, production, and post-production of garments.
- Get acquainted with various materials and components of garment production.
- Identify common garment defects and suggest corrective actions using quality control methods.

THEORY (Credit 3; 45 Hours)

UNIT I: Introduction to Garment Manufacturing Industry

8 Hours

This unit introduces the student to the various departments of garment industry and its global scenario. It also lays thrust on standards and specifications followed in industry and the production systems.

• Overview of garment Industry- Domestic and global scenario

- Departments in garment Industry
- Standards and Specifications
- Garment production systems

UNIT II: Pre-production Processes

10 Hours

This unit covers the various pre-production processes which are essential for planning and sequencing for efficient garment production.

- Designing and Collection Planning
- Pattern Making and garment sampling
- Tech-pack preparation
- Production planning and control- production workflow (parts, panels, pieces & product), plant layout and line balancing
- Time and motion study and its effect on productivity, operation breakdown, calculation of Standard Allowed Minute (SAM)

UNIT III: Production Processes

20 Hours

This unit helps students understand 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.

- Fabric and accessories inspection
- Pattern grading and marker development
- Spreading and cutting of fabric, other operations (fusing), ticketing and bundling
- Sewing machines Basic and Special-purpose, machine beds, feed mechanisms,
- Sewing threads & machine needles
- Seam types and stitch types
- Special attachments and work-aids
- Alternative methods of joining material: welding and moulding

UNIT IV: Post-production Processes

7 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.

- Garment finishing- Thread trimming, stain removal, washing, pressing (purpose, types and equipment used)
- Quality assurance- In-line checking and end-line checking, quality procedures/audits, acceptable quality limits
- Folding and packaging (packaging materials, types of packing, packaging equipment)
- Warehousing and shipment- handling equipment, storage equipment, transportation issues

PRACTICAL (Credit 1; 30 Hours)

- 1. Organizations dealing with standards and regulations in garment Industry / Garment Industry standards and regulations (report compilation)
- 2. Fabric Inspection procedure and fabric defects, four-point system of fabric inspection
- 3. Identifying seam class and stitch type
- 4. Evaluating the construction quality of various garments
- 5. Conducting a design analysis of a given garment style and preparing an operation breakdown and sequencing for garment assembly
- 6. Calculation of Standard Allowed Minute (SAM), Line balancing
- 7. Development of specification sheets and cost sheet

Essential Readings

- Brown, P. and Rice, J. (2014). Ready to Wear Apparel Analysis. Fourth Edition. Pearson Education, India.
- Cooklin. G., Hayes (Ed.), McLoughlin J. (Ed.). (2006). Introduction to Clothing Manufacture. Second Edition. Blackwell Scientific Publication, U.K.
- Kadolph, Sara J. (1998). Quality Assurance for Textiles and Apparel. Fairchild Books.
- Karthik, T., Ganesan, P. and Gopalakrishnan, D. (2017). Apparel Manufacturing Technology. CRC Press, New York.
- Tyler, D.J. (2008). Carr and Latham's technology of clothing manufacture (4th ed.). Blackwell, U.K.

Suggested Readings

- Chuter, A.J. (1999) Introduction to Clothing Production Management. Om Book Service, New Delhi
- Glock, R. E., & Kuntz, G. I. (2009). *Apparel manufacturing: Sewn product analysis*. (4th ed.). Pearson Education, New Delhi. Publications.
- Ramesh Babu, V. (2012). Industrial Engineering in Apparel Production. Woodhead Publishing India Pvt. Ltd. New Delhi.
- Stamper, Sharp and Donnell, (1991), Evaluating Apparel Quality (2nd edition), Fairchild

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE FAS 103: FASHION COMMUNICATION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	Eligibility Criteria	Pre-requisite of the Course (if any)	
		Lecture	Tutorial		· • • • • • • • • • • • • • • • • • • •	
DSE FAS 103: Fashion Communication	4	2	0	2	Completed Semester 6	Nil

Learning Objectives

- To use the fundamentals of fashion photography
- To understand styling for impactful storytelling
- To equip students with the knowledge of visual merchandising
- To teach basics of graphic design for effective fashion communication
- To examine the role of media and journalism in shaping fashion narratives

Learning Outcomes

The students would be able to:

- Execute fashion photography basics to create professional images
- Curate fashion looks with the understanding of styling
- Interpret elements and principles of visual merchandising
- Comprehend basics of graphic design
- Examine and analyse use of varied media for communication and promotion

THEORY (Credits 2; Hours 30)

UNIT I: Fashion Photography

8 Hours

This unit introduces foundational skills in fashion photography, styling, and visual branding for fashion communication.

- Introduction to Fashion Photography- Types, Visual Aesthetics and Composition
- Basics of Camera Handling and Exposure: Camera parts, Exposure Triangle and Depth of Field
- Lighting Essentials: Natural vs Studio Light, White Balance

UNIT II: Styling & Visual Communication

4 Hours

- Styling Principles: Selection of clothing by body shapes.
- Styling and coordination of accessories

UNIT III: Visual Merchandising,

8 Hours

This unit explores the integration of visual merchandising, graphic design, and fashion media to create compelling retail and brand communication.

- Visual Merchandising: Definition, Purpose, Elements (Line, Colour and Balance), Store layout and Display techniques
- Technology in Visual merchandising

UNIT IV: Graphic Design and Fashion Media

10 Hours

- Basics of Graphic Design: Design Process, Typography, Layouts
- Fashion Media Overview: Journalism, Digital platforms, PR, Influencer marketing and Ethics

PRACTICAL (Credits 2; Hours 60)

1. Fashion Photography and Styling

- **Project 1: Mood Board-** Select a theme and create a mood board harmonizing colors, textures, fabrics, and accessories for a fashion shoot.
- **Project 2: Fashion shoot-** Plan, style, shoot, and edit a themed editorial-style shoot using skills learnt such as camera adjustments (professional or mobile camera), lighting, fashion styling, posing and editing.

2. Visual Merchandising

- **Project 3: Retail Display Analysis-** Visit a store and analyze its visual merchandising techniques (store layout, window display, I scheme, lighting, fixtures, etc.).
- **Project 4: Storefront Window Design-** Design a mini window display using innovative materials (eg. Laser cut mdf/ wood veneers/ mesh/ acrylic sheets/ porex/ PVC foam board/ fabric panels/ sawdust/ cork sheets etc.), props, mannequins, and lighting to communicate a theme.

3. Graphic Design

- **Project 5: Fashion Brand Identity Kit** Design a logo, typography, and I palette for a fashion brand, applying them to business cards, website, labels, or packaging.
- Project 6: Fashion Editorial & Marketing Design- Design a fashion magazine cover or social media post/ carousel or ad campaign using grids and layouts.

4. Fashion Media and Journalism

- **Project 7: Fashion Blog/Article** Write and publish an engaging article on a fashion trend or event.
- Project 8: Fashion Podcast or Video Interview Conduct a mock

- interview with a designer, influencer, or stylist, recording a short podcast or video.
- **Project 9: Influencer Collaboration Proposal** Develop a collaboration pitch for a brand to work with an influencer, outlining campaign goals, deliverables, and engagement strategies.

Essential Readings

- Greenwood, G. L. (2012) *Fashion Marketing Communications*, John Wiley and Sons, UK.
- Jade, L. (2012) Fashion Photography 101: A Complete Course for the New Fashion Photographers, Hachette, UK.
- Jay, Phyllida (2015) Fashion India, Thames and Hudson, London.
- Werner, T. (2018) *The Fashion Image: Planning and Producing Fashion Photographs and Film, Bloomsbury Visual Arts, UK.*
- Pegler, M. M. (2011) *Visual Merchandising and Display*, Fairchild Books, United States.
- Posner, H. (2011) Marketing Fashion, Lawrence King Publishing, China.
- Fogg, M. (2006) Fashion Graphics: Designing for Branding & Communication, Thames & Hudson, UK.
- Bradford, J. (2014) Fashion Journalist, Routledge, UK.

Suggested Readings

• Smith, B. (2008) Fashion Photography: A Complete Guide, Amphoto Books, United States.

SEMESTER II

DISCIPLINE SPECIFIC CORE COURSE DSC FAS 201: DYEING AND PRINTING - I

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(ii uiij)
DSC FAS 201: Dyeing and Printing- I	4	3	0	1		Nil

Learning Objectives

- To understand the basic theory and chemistry of dyes used on textiles.
- To gain knowledge about the application of different dyes on various textile substrates.
- To understand the fundamentals of textile printing.

Learning Outcomes

The students would be able to:

- Explain 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.
- Analyse the colour fastness properties of dyed and printed textiles.

THEORY (Credits 3; Hours 45)

UNIT I: Principles of Textile Colouration

This unit deals with the general principles of textile colouration.

5 Hours

- Colour theory
- Structure of dyes and pigments: Chromophore, Auxochrome
- Theory of Dyeing
- Dye-fibre bonds

UNIT II: Dyeing 13 Hours

This unit lays thrust on the chemistry and application of various dye classes on different substrates

- Chemistry and application of various dye classes: Direct, Reactive, Vat, Azoic, Sulphur, Acid, Basic, Metal Complex, Chrome Mordant, Disperse
- Natural Dyes and Mordants
- Dyeing defects

UNIT III: Printing 20 Hours

This unit highlights the various methods and styles of printing for various textile substrates.

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

UNIT IV: Colour Fastness

7 Hours

This unit deals with the concept and measurement of colour fastness

• Principle of colour fastness and its measurement: Wash, Light, Rub, Perspiration

PRACTICAL (Credits 1; Hours 30)

Dyeing

- Cotton using 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

Printing

- Direct printing of cotton using Reactive dyes and Azoic colours (Naphthols and fast colours)
- Resist printing of cotton using Azo dyes
- Discharge printing of cotton using Direct dyes

• Colour Fastness Measurement

- Wash fastness
- Crock fastness
- Perspiration fastness

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
- सेखड़ीं सीमा(2022), वस्त्र विज्ञान, 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.

DISCIPLINE SPECIFIC CORE COURSE

DSC FAS 202: HISTORY OF COSTUMES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(ii uiij)
DSC FAS 202: History of Costumes	4	3	1	0		Nil

Learning Objectives

- To study the development of costume from ancient times to the 20th 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

The students would be able to:

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

THEORY (Credits 3; Hours 45)

UNIT I: Importance of World Textiles and Costumes in Historical Perspective. 6 Hours

This unit outlines the historical perspective of the origin of textiles and costumes.

- Sources of information for historic costumes
 - Archaeological excavations and discoveries
 - Ancient literature, chronicles and archival records
 - Museums and art galleries
 - Sculpture and pottery
- The origin of costume
- Costume through the ages- inspiration for designing and styling

UNIT II: Costumes in Early Civilizations

10 Hours

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

- Mesopotamia
- Egypt
- Greece
- Rome
- India

UNIT III: Costumes in the Middle Ages

13 Hours

This unit aims to explore the advancements in textiles and costumes during the Middle Ages.

- The Feudal ages (1100 AD- 1300AD)
- The late Middle Ages (1300AD-1500AD)
- Renaissance: Italy, France, England (15th-16th century)
- India: Mughal period

UNIT IV: Costumes in 17th to 20th century

16 Hours

This unit highlights the changes and developments in European costumes through different eras from 17th to 20th 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)
- Early Twentieth Century

TUTORIAL

(Credit 1; Hours 15)

- 1. To make a report or presentation on any two design collections of eminent designers inspired by historic costumes.
- 2. To showcase costumes styles of the ancient civilizations through draping technique.
- 3. To discuss and design garments and accessories inspired from any one ancient civilization

- 4. To make a presentation on any one prominent component of a period costume with reference to raw material, construction, embellishments/styling, use etc.
- 5. Case study of a historical figure (E.g. Cleopatra, Queen Elizabeth I, Emperor Akbar, Napoleon, Louis XIV etc.) for analyzing their costumes with reference to textile materials and colours used, styling of garments, silhouette, accessories etc.
- 6. To make a Presentation on highlighting development in textiles and costumes during 17th to early 20th century with respect to the influence of socio-cultural, technological factors on styling of 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.

DISCIPLINE SPECIFIC CORE COURSE DSC FAS 203: ADVANCED PATTERN MAKING AND GARMENT CONSTRUCTION- I

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		(ii uiiy)
DSC FAS 203: Advanced Pattern Making and Construction- I	4	2	0	2		Nil

Learning Objectives

- To develop skills in advanced pattern-making techniques and industry practices
- To identify and evaluate materials used in garment construction
- To analyse garment fit and apply correction techniques
- To gather knowledge about CAD tools used for digital pattern-making and virtual fitting

Learning Outcomes

The students would be able to:

- Apply advanced pattern-making techniques effectively
- Select appropriate materials for garment construction
- Assess and correct garment fit issues
- Get acquainted with CAD tools for pattern development and visualization
- Draft and construct various garment elements with precision

THEORY

(Credits 2; Hours 30)

UNIT I: Fundamentals of Advanced Pattern Making and Fabric Knowledge

10 Hours

- Terminology, tools, pattern making techniques and types of patterns used in industry
- Introduction to commercial paper patterns
- Digitizing hand-drafted patterns, pattern grading and automated marker making
- Computer-Aided Design (CAD) and AI in Pattern Development

UNIT II: Understanding Fabrics used in Garment Construction

8 Hours

- Fashion fabrics- aesthetics and functional performance
- Underlying fabrics- purpose, types, applications, evaluation
- Supporting materials- Boning, Stays, Closures, Trims, Shoulder Pads, etc.

UNIT III: Fit Analysis

6 Hours

- Evaluating fit: bodice, skirt, torso block, semi-fitted dress, A-line dress and various components of a garment
- Common fitting issues based on specific body requirements and corresponding fit corrections

UNIT IV: Fit Correction and Pattern Adjustment Techniques

6 Hours

- Fit correction techniques and pattern alteration techniques
- Advanced tools for fit assessment (3D body scanning, virtual fitting and 3D visualization)

PRACTICAL (Credits 2; Hours 60)

- 1. Developing patterns in bodices with added fullness, yoke variations, dart clusters, graduated darts, parallel darts, asymmetric darts, radiating darts etc.
- 2. Drafting of collars- bush shirt collar, shirt collar, basic shawl collar, peter pan collar on altered neckline
- 3. Drafting variations in sleeves- shirtmaker, bishop, leg-o-mutton, puff, and short lantern
- 4. Drafting of women's lower body garment (trousers/variations of skirts/ palazzo)
- 5. Construction of samples: Kurta placket, Zipper attachments, Patch, In-seam and slash pockets
- 6. Construction of:
 - Formal top/ blouse/kurta featuring collar, sleeve and placket with a suitable fastener
 - Skirt/bifurcated garment featuring a waistband, pocket, and placket with a suitable fastener

Essential Readings

- Armstrong, H. J. (2009). *Pattern making for fashion design (5th ed.)*. Harper Collins Publishers.
- Beazley A., & Bond, T. (2004). Computer-aided pattern design and product development. Om Book Service. New Delhi
- Brown, P., & Rice, J. (2014). *Ready to wear apparel analysis* (4th ed.). Pearson Education. New Delhi
- 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.
- Shaeffer, C. (2014). Sewing for the apparel industry: Pearson new international edition
 - (2nd ed.). Pearson Education Limited. United States of America
- Tyler, D.J. (2008). Carr and Latham's technology of clothing manufacture (4th ed.). Blackwell, U.K.

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
- Dunham, G. R. (2021). *The fitting book: Make sewing pattern alterations and achieve the perfect fit you desire*. Gina Renee Designs Publication.
- 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.
- Stamper, A. A., Sharp, S. H., & Donnell, L. B. (2005). *Evaluating apparel quality* (2nd ed.). Fairchild. New York

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HSC 201: ADVANCED RESEARCH METHODS IN HOME SCIENCE

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
3040		Lecture	Tutorial	Practical		(11 11.13)
DSE HSC 201: Advanced Research Methods in Home Science	4	3	0	1		Nil

Learning Objectives

- To explain the types and approaches to research.
- To describe the principles and process of quantitative research approach.
- To describe the principles and process of qualitative research approach.
- To elaborate the critical ethical issues for planning, conducting and publishing research.

Learning Outcomes

The students would be able to:

- Describe the types, paradigms and approaches to research.
- Employ the principles and process of quantitative research approach.
- Appraise the principles and process of qualitative research approach.
- Apply the principles of ethics in designing, executing and reporting of research.
- Formulate a research proposal in any specialized area of Home Science.

THEORY (Credits 3; Hours 45)

UNIT I: Research: Paradigms, approaches and process

10 Hours

This unit introduces the concept, types, designs, paradigms, approaches and process of research. The unit also highlights the concerns of reliability and validity in research.

- Definition and objectives of research
- Importance, scope and types of research

- Research design: Concept and significance
- Paradigms of research
- Research approaches: Quantitative, qualitative and mixed methods
- Reliability and validity in research methods and concerns
- The Research Cycle

UNIT II: Principles and Process of Quantitative Research Approach 12 Hours

This unit focuses on various research designs, methods of sampling and data collection techniques followed in quantitative research approach. It also emphasizes on the levels of measurement of data and errors in quantitative research

- Components, types and applications of research designs in quantitative research approach: Observational and experimental designs
- Concept of sampling, sampling methods Probability and non-probability sampling in quantitative research
- Methods of data collection in quantitative research
- Measurement in research, scales and errors in measurement
- Errors in inference bias and confounding

UNIT III: Principles and Process of Qualitative Research Approach 14 Hours

This unit introduces students to qualitative research methodologies, exploring their philosophical foundations, data collection methods, analysis techniques and ethical considerations.

- Philosophical underpinnings: Constructivism, interpretivism and critical theory
- Approaches to qualitative research: Ethnography, phenomenology, case study research, grounded theory and action research.
- Sampling in qualitative research
- Data collection methods and techniques: Observation, interview, focus group discussion and case study.
- Data management and analysis in qualitative research: Thematic, narrative and discourse analysis

UNIT IV: Research and Publication Ethics

9 Hours

This unit addresses issues related to research integrity, responsibilities of researchers and ethical standards for publishing academic work.

- Definition and importance of research ethics: Ethical concerns for research in the field of Home Science
- Ethical principles in Research planning and execution: Informed consent, anonymity, confidentiality and privacy, voluntary participation, safety and dignity of participants, transparency
- Data integrity and ethical data collection: use of appropriate methodology,

- ensuring accuracy and validity, managing sensitive data, avoiding misuse of information
- Bias and conflict of interest in research
- Forms of research misconduct: Fabrication and falsification of data and plagiarism
- Ethical issues in research publication: Selective reporting, misrepresentation of data, salami slicing and predatory publications

PRACTICAL (Credits 1; Hours 30)

- 1. Critical review of a published original research article in any area of Home Science.
 - Identification and documentation of strengths and weaknesses of various components of the selected research article
- 2. Sampling in Research
 - Probability and non-probability sampling techniques
- 3. Formulation of a data collection tool
- 4. Referencing and Citation in Scientific Writing
 - Importance and different styles of referencing
 - Concept of in-text and post-text referencing
 - Digital tools for referencing
- 5. Plagiarism in research
 - Concept and types of Plagiarism
 - Technical writing using quotations, paraphrasing and summarizing
 - Plagiarism detection software
- 6. Formulation of a research proposal
 - Identification of a research problem/thrust area in any specialization of Home Science
 - Literature review related to the identified research problem
 - Proposal formulation giving timeline for conducting the research study

Essential Readings

- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research* (4th ed.). Cengage Learning.
- Kothari, C. R., & Garg, G. (2023). *Research Methodology: Methods and Techniques*. New Age International Pvt Ltd, New Delhi.
- Kumar, R. (2019). *Research Methodology: A Step-by-Step Guide for Beginners*. 5th Ed. Sage Publications, New Delhi.
- UGC (2021) Academic Integrity and Research Quality. New Delhi: UGC, Retrieved from https://www.ugc.ac.in/e-book/Academic%20and%20Research%20Book_WEB.pdf

Suggested Readings

- Aggarwal, J. & Sabharwal, V. (2025). Essentials of Research Methodology- A Practical Manual. Elite Publishing House, New Delhi.
- Bernard, H. R. (2000). Social research methods: Qualitative and quantitative approaches. Thousand Oaks, CA.: Sage.
- Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). SAGE Publications.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). SAGE Publications.
- Silverman, D. (2020). *Qualitative research* (5th ed.). SAGE Publications.

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE FAS 201: SUSTAINABILITY IN FASHION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(ii uny)
DSE FAS 202: Sustainability in Fashion	4	3	0	1		Nil

Learning Objectives

- To introduce the concept of sustainability in various stages of textile and apparel production, understanding of the environmental issues in textile supply chain
- To be familiar with sustainable development goals and understand guidelines and regulations
- Explore sustainable approaches in fashion, including eco-friendly production
- Learn about legal regulations, industry standards and responsible consumption

Learning Outcomes

The students would be able to:

- Learn about the textile supply chain, associated sustainability issues and the effect of industrial revolution on current fashion scenario
- Understand the environmental impact of textile fibres and fashion industry processes
- Explain the social economic and environmental aspects of sustainability; impacts and their measurement
- Understand various approaches to sustainability Life cycle thinking, Circular economy, Corporate Social Responsibility, Sustainable design, Green Supply chain
- Familiar with United Nation's Sustainable Development Goals and sustainability standards and voluntary organisation

THEORY (Credits 3; Hours 45)

UNIT I: Fashion Industry and Environmental Issues

12 Hours

This unit introduces the students to the issues related to fashion industry and factors leading to those issues

• Types of textile fibers; the textile value chain and associated

- processes, environmental issues associated with various textiles: natural and manmade fibres
- Factors influencing environmental impacts in textile supply chain: energy (electricity and fossil fuels), water use, water pollution, chemicals, dyes, auxiliaries, waste, air, noise fast fashion, overconsumption, sweatshops
- Industrial revolutions: evolution of fashion through first, second, third and fourth industrial revolution; Industry 5: Use of technology in promoting sustainable fashion

UNIT II: Sustainability: Definition, Various Aspects and Methods of Assessment 12 Hours

This unit will give an understanding of the idea of sustainability, related terminology and how sustainability can be measured

- Definition of Sustainability, the triple bottom framework: social, economic, environmental perspectives of sustainability
- Terminology in sustainability: environmental sustainability: ecology and ecological balance, circles of sustainability
- Sustainability analysis: risk assessment, life-cycle assessment (carbon footprint, water footprint), Life Cycle Costing, Social LCA. benefit-cost analysis, ecosystem-services valuation, integrated assessment models, environmental justice, and present and future scenario tools

UNIT III: Approaches to Achieve Sustainability

12 Hours

This unit deals with factors sustainable ways of producing and consuming clothing

- Sustainable Consumption: Slow fashion, Durability, Appropriateness, Multifunctional garments, Trans-seasonal garments, emotionally durable design, Local Consumption and production: Supporting local artisan
- Sustainable production Sustainable design, Circular economy, R's of waste management, Eco friendly textile processing and waste minimization, Sustainable and Regenerated fibres, fibers from waste material and bioengineered fibers

UNIT IV: Sustainability Regulations and Voluntary Initiatives in Textile Production 9 Hours

This unit introduces the student to various standards, regulations and voluntary organisations that promote sustainability in fashion industry

- Sustainable Measures taken by Industry Affiliates, Non-profit Organizations and Governmental and Educational Institutions
- Environmental Management System: ISO 14000 Certification and standards
- Environmental Impact Assessment (EIA), Best Available Techniques (BAT) / Best Available Techniques Reference (BREF)
- Corporate Social responsibility, Workers and community safety: use of safe dyes and auxiliaries, safe chemical handling practices
- Voluntary organizations and campaigns: GOTS, GRI, ZDHC, SAC, OEKOTEX, REACH, Detox Campaign, Revolution Blue Sign, Fair trade

PRACTICAL (Credits 1; Hours 30)

1. Measuring sustainability through Life Cycle Assessment of a textile product

- Concept of "Cradle to Grave", developing a process flow chart, data collection
- Assessment of energy consumption of a textile product
- Assessment of carbon footprint of a textile product
- Assessment of water footprint of a textile product

2. Understanding and Enhancing Textile Sustainability through the following

- Case studies of brands addressing sustainability in different ways —each student presenting a case study through PowerPoint presentation
- Product Development from Sustainable Materials using textile waste and thermoset resins, recycled/reused material in fashion each student submitting an innovative product and a written report about how it is a sustainable product and presenting it with power point

Essential Readings

- Fletcher, K., & Grose, L. (2012). Fashion & sustainability: Design for change. Hachette UK
- Fletcher, K. (2013). Sustainable fashion and textiles: design journeys. Routledge.
- Gwilt, A., & Rissanen, T. (2012). Shaping sustainable fashion: Changing the way we make and use clothes. Routledge.
- Jacques, P. (2020). Sustainability: the basics. Routledge.
- Gardetti, M.A., & Torres, A.L. (Eds.). (2013). Sustainability in Fashion and Textiles: Values, Design, Production and Consumption (1st ed.). Routledge.
- Pratibhan, M. Ed. (2017); Sustainability in Fashion & Apparels (Challenges & Solutions); Woodhead Publishing
- Mahapatra N. N. (2015); Textiles & Environment: Woodhead Publishing

Suggested Readings

- Blackburn, R.S. (2005) *Biodegradable and Sustainable Fibres*: Woodhead Publishing Series in Textiles, ISBN-10: 185573916X, ISBN-13: 978-1855739161
- Blackburn, R.S. (2009) Sustainable Textiles: Lifecycle and Environmental Impact: Woodhead Publishing Series in Textiles, ISBN: 9781845694
- Gordon J. F. Hill C. (2014), Sustainable Fashion: Past, Present and Future, Bloomsberry Academic Publications, New York
- Muthu S. (2017), Sustainable fibres and Textiles, ISBN: 9780081020418, Woodhead Publishing
- Jain, C. (2016) Simplifying Corporate Sustainability A guide to implementing Sustainable Practices in Textile Industry: Createspace Independent Pub. ISBN 978- 981-11-0386-5 Gardetti, M.A., Torres, A.L. and Gardetti, M.A. (2013) Sustainability in Fashion and Textiles, Greenleaf Publishing Limited, ISBN 978-1-906093-78-5 (hbk)

• ISO - Central Secretariat, 2009. Environmental management: The ISO 14000 family of International Standards. Published by International Standards Organisation

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE FAS 202: TEXTILE CONSERVATION AND RESTORATION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		
DSE FAS 203: Textile Conservation and Restoration	4	2	0	2		Nil

Learning Objectives

- To discuss concepts which enable students to contribute to the understanding and preservation of culturally significant textile artifacts.
- To describe the core ethical principles underlying professional conservation practice.
- To demonstrate practical skills for textile collection preservation.
- To explain effective storage and display solutions for textile artifacts.

Learning Outcomes

The students would be able to:

- Acquire a combination of academic and practical skills essential for textile conservation.
- Apply ethical principles of conservation in professional practice.
- Use tools, equipment and conservation grade materials effectively for practical purposes.
- Develop expertise in handling, conserving and restoring diverse textiles professionally.

THEORY (Credits 2; Hours 30)

UNIT I: Introduction to Textile Conservation,

7 Hours

This unit introduces the core principles and concepts of conservation and covers the fundamentals of textile material science and factors that influence their deterioration and preservation

- Definition and scope of textile conservation
- History and development of textile conservation
- Ethics and principles of textile conservation
- Overview of textile conservation techniques and methods

UNIT II: Introduction to Materials and their Deterioration

8 Hours

- Types of natural fibers (cotton, silk, wool, etc.)
- Textile construction techniques (weaving, knitting, etc.)
- Properties of textiles (strength, durability, etc.)
- Causes of textile deterioration
- Types of textile damages
- Assessment and documentation of textile condition

UNIT III: Cleaning and Restoration Practices

10 Hours

This unit provides in-depth look at conservation practices, focusing on materials, tools, collection care and storage and display methodologies

- Cleaning methods
- Stabilisation and Restoration techniques
- Dyeing and colour matching techniques
- Conservation quality supplies

UNIT IV: Storage and Display Techniques

5 Hours

- Storage: Types and techniques
- Display: Materials and techniques

PRACTICAL (Credits 2; Hours 60)

- 1. Identify different types of fibers using various techniques, such as microscopy and burn tests.
- 2. Dye analysis techniques for identifying dye in textiles.
- 3. Handle specialized equipment, such as vacuum cleaners, humidifiers, digital microscope, spectrophotometer or conservation-grade materials.
- 4. Visit a textile museum or collection and survey external and internal factors.
- 5. Examine textile artifacts and prepare condition reports.
- 6. Photograph textiles from different angles.
- 7. Clean different types of textiles using various dry and aqueous cleaning methods.
- 8. Hand-stitching techniques for repairing and reconstructing textiles.
- 9. Re-weave for repairing damaged or missing areas of textiles.
- 10. Mount textiles on different types of supports, such as boards, rollers, or mannequins.

- 11. Display textiles in a way that minimizes damage and maximizes visibility.
- 12. Deacidification techniques for neutralizing acidic materials in textiles.

Pest management techniques for preventing and treating infestations in textile Essential Readings

- Finch, K. and Putnam, G. (1985), *The Conservation of Tapestries and Embroideries*, Butterworth Heinemann, London UK.
- Landi, S. (2nd edition, 2000), *The Textile Conservator's Manual-A comprehensive guide to textile conservation*. Butterworth-Heinemann, London UK.
- Lennard, F. and Ewer P (2010), *Textile Conservation: Advances in Practice; A collection of essays on textile conservation techniques and practices*, Elsevier, Amsterdam, Netherlands.
- Wood, Elizabeth J. (2017), Textile Science: An Introduction A comprehensive textbook on textile science, covering fibers, yarns, fabrics, and finishes, Bloomsbury Academic, London UK
- Trotman, E. R. (1984) *Dyeing and Chemical Technology of fibres*, Sixth edition, England: Charles Griffin and Company Ltd.

Suggested Readings

- American National Standards Institute (ANSI) Standards for Textile Conservation A set of standards for textile conservation, covering topics such as cleaning, stabilization, and repair.
- International Organization for Standardization (ISO) Standards for Textile Conservation
 - A set of international standards for textile conservation, covering topics such as textile testing, cleaning, and repair.
- The Textile Conservation Code of Ethics A code of ethics for textile conservators, outlining principles and guidelines for professional practice.
- Journal of the American Institute for Conservation (JAIC) A leading journal on conservation and preservation, including textile conservation.
- Studies in Conservation A peer-reviewed journal published by the International Institute for Conservation of Historic and Artistic Works (IIC), covering various aspects of conservation, including textiles.

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

13.

SKILL BASED COURSES

SKILL BASED COURSE

SBC FAS 01: FASHION ILLUSTRATION: TECHNIQUES AND APPLICATION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)	
		Lecture	Tutorial	Practical	(II ally)		
SBC FAS 01: Fashion Illustration: Techniques and Application	2	0	0	2	Nil	Nil	

Learning Objectives

- Describe the basics of fashion illustration, including proportion, pose, and facial features.
- Demonstrate various illustration techniques, such as drawing and painting
- Illustrate rendering techniques for different fabrics, textures, and details.
- Propose various styles in fashion illustration.

Learning Outcomes

The students would be able to:

- Sketch the figure in correct proportion and various poses.
- Translate various illustration techniques to develop fashion figures.
- Create visually appealing and commercially viable illustrations that showcase fashion designs, textures, and details.
- Develop personal style of fashion illustration.

PRACTICAL (Credits: 2; Hours 60)

1. Introduction to Fashion Illustration

6 Hours

- Understanding the basics of proportion, pose, and facial features
- Introduction to various illustration techniques and mediums

3. Drawing and Painting Techniques

12 Hours

- Drawing the fashion figure, including proportion and pose
- Practicing various drawing techniques, such as line work, shading, and texture
- Introduction to various mediums, including pastels, pencil, water and poster colours

3 Illustrating Fabrics and Textures

14 Hours

- Illustrating different fabrics, including woven and knit textures
- Practicing various techniques for rendering texture and details
- Introduction to illustrating accessories, such as jewellery, footwear and handbags

4 Understanding Poses

14 Hours

- Introduction to illustrating movement and gesture
- Practicing various techniques for conveying mood and atmosphere

5 Final Project

14 Hours

• Creating a final portfolio that showcases skills and personal style

Essential Readings

- Abling, B. (1988) Fashion sketch book, Om books International
- Brambatti, M. (2017) Fashion Illustration & Design, Promopress
- Ireland, Patrick John, (2005), Figure templates for fashion illustration, Batsford Ltd
- Hagen, Kathryn, (2005) Fashion illustration for designers, Pearson Prentice Hall, NJ
- Takamura, Z. (2012) Fashion Illustration Techniques, Rockport Publishers

Suggested Readings

- Tate, Sharon Lee, 1982 Complete Book of Fashion Illustration, Barnes & Noble
- Seaman, Julian, 1996 Fashion Illustration: Basic Techniques
- Hopkins, John, 2010, Fashion Drawing

SKILL BASED COURSE SBC FAS 02: ADVANCED COMPUTER AIDED DESIGN

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(ii any)
SBC FAS 02: Advanced Computer Aided Design	2	0	0	2	Nil	Nil

Learning Objectives

- To gain proficiency in advanced CAD software for fashion design.
- To explore innovative and creative design possibilities
- To develop and create detailed garment specifications and digital patterns

Learning Outcomes

The students would be able to:

- Design intricate fashion sketches and patterns digitally.
- Translate design concepts into visualizations and technical drawings.
- Implement CAD and AI to execute design ideas

PRACTICAL (Credits 2; Hours 60)

1. Drawing fundamentals in vector-based software

- Overview of interface, tools, panels, workspace and shortcuts (CorelDraw/Inkscape/any other open-source application)
- Figure Proportion Exercise
- Fashion Croquis Creation
- Flat sketches of garments and accessories

2. Digital Fashion Design

- Vector Based Software (CorelDraw/Inkscape/any other open-source application)
 - Text and object manipulation
 - Types of motifs and motif development
 - Forms of motif- natural, stylised, abstract and geometric forms
 - Motif repeats and colourways
 - Theme based design collection
 - Tech Pack Creation

- Raster Based Software (Photoshop/ Photopea/ GIMP/ any other open source application)
 - Overview of interface, tools, panels, workspace and shortcuts
 - Moodboards and concept boards
 - Colour, Pattern and Textures
 - Colour modification, filters and blending options
 - Layer mask, clipping mask- text and shape
 - Garment rendering

3. New Ways of Designing Fashion

This unit explores innovative approaches to fashion design, incorporating emerging technologies to depict creative ideas.

- Introduction to generative AI in Fashion Design
- AI for inspiration and trend forecasting
- AI assisted sketches and pattern generation (Deep dream generator, Re-Sleeve, Silk PLM, Outfit Anyone, AI image, etc.)
- Traditional and AI assisted design process: A critique

Essentials Readings

- Aspelund. K. (2014) Design Process, Fairchild Bloomsbury Publication, 3rd Edition
- Duggal, (2000) V. A General Guide to Computer Aided Design and Drafting, Mailmax
- Publications, New York
- Grosicki, Z.J. (1989) Advanced Textile Design (4th Ed) Watson's, London, Newness Butterworths

Suggested Readings

- Meller S and Eiffer. J (1991) Textile Design, London, Thames and Hudson
- Roojen PV (2002) Art Nouveau Designs, The Pepin Press- Agile Rabbit Editions, Singapore
- Wilson Eva (1994) 8000 Years of Ornament, London, the British Museum Press
- Web tutorials of vector and raster based softwares
- Web tutorials of AI based applications

SKILL BASED COURSE SBC FAS 03: SURFACE DESIGN TECHNIQUES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		(== 33=5)
SBC FAS 03: Surface Design Techniques	2	0	0	2	Nil	Nil

Learning Objectives

- To describe various surface design techniques.
- To demonstrate different surface design techniques.
- To develop students' creative and problem-solving skills.

Learning Outcomes

The students would be able to:

- Identify different design methods like embroidery, ari work and embellishments, color application like painting, dyeing and printing, macrame, braiding and lace making.
- Create different structures using above techniques.
- Develop a product after acquiring skills in design techniques.

PRACTICAL (Credits 2; Hours 60)

1. Basic Fabric Manipulation Techniques

12 Hours

- Cuts and removal of threads
- Folding and pleating
- Gathering and ruching
- Tucking
- Hand-stitching and machine-stitching techniques

2. Embellishment Techniques

12 Hours

- Padding and quilting
- Appliqué, Ari work and embroidery
- Beading and sequencing

3. Dyeing, Printing and Painting Techniques

14 Hours

- Hand painting: Painting designs directly onto fabric using brushes and paint.
- Tie-dye: Folding and binding fabric to create unique, dyed patterns.
- Shibori: Folding and binding fabric to create intricate, dyed patterns.
- Block and Screen Printing: Creating designs using blocks, screens and ink
- Batik: Using wax and dye to create unique, patterned designs

4. Thread structure Techniques

10 Hours

- Macrame
- Braiding
- Lace making (Crochet, Tatting)

5. Product development using mixed design exploration techniques.

12 Hours

Essential Readings

- Wolff, C. 1996, The Art of Manipulating Fabric, Krause Publication, Wisconsin
- Juracek, A. Judy, 2000, Soft Surface, Thames & Hudson Ltd.
- Milne D'Aary Jean, 2006, Fabric Left Overs, Octopus Publishing Group Ltd.
- Singer Margo, 2007, Textile Surface Decoration-Silk & Velvet, A&C Black Ltd.

Suggested Readings

- Gunner, J. (2007). Shibori for textile artists. Kodansha America.
- Zedenius, F., & Lightbody, K. (2017). Macramé: the craft of creative knotting for your home. London, Quadrille Publishing.
- Day, L. F. (2008). Art in needlework. Lulu. com.
- Higgin, L. (2022). Handbook of embroidery. DigiCat.
- Brown, C. (2013). Embroidered & Embellished: 85 Stitches Using Thread, Floss, Ribbon, Beads & More. C&T Publishing Inc.

SKILL BASED COURSE SBC FAS 04: FASHION STYLING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
		Theory	Tutorial	Practical		
SBC FAS 04: Fashion Styling	2	0	0	2	Nil	Nil

Learning Objectives

- To grasp the fundamentals of fashion styling and explore its career opportunities.
- To delve into the various categories of styling within the fashion industry.
- To comprehend the business of styling in the fashion industry.
- To train the students with professional ways of understanding wardrobe needs and their development.

Learning Outcomes

The students would be able to:

- Comprehend the responsibilities and roles of a fashion stylist in the industry.
- Apply key styling techniques across personal and commercial disciplines.
- Analyse market trends and implement marketing strategies in the fashion styling business.
- Organize a wardrobe, create a capsule collection, and apply maintenance strategies for long-term functionality.

PRACTICAL (Credits 2; Hours 60)

1. Introduction to Fashion Styling

10 Hours

This unit introduces the basics of styling, the role of stylist and career opportunities.

- Basics of Fashion Styling
- Role of Fashion Stylist in the Industry
- Career Prospects in Fashion Styling

2. Fashion Styling Disciplines

30 Hours

This unit explores various aspects of personal and commercial styling across different platforms and events.

a) Personal Styling

- Body Shape Analysis and Flattering Silhouettes
- Face Shape Analysis
- Personal Color Analysis
- Identification of Personal Style Archetypes
- Style Consultation for Special Occasions

b) Commercial Styling

- Editorial Styling for Digital Platforms
- Celebrity Styling
- Styling for Television, Film, and Music Videos
- Styling for Fashion Shows and Events

3. Wardrobe Management and Planning

20 Hours

This unit covers effective wardrobe planning and long-term management.

- Wardrobe Analysis
- Wardrobe Essentials
- Organization, Categorization and Storage of Wardrobe Items
- Wardrobe Maintenance
- Capsule Wardrobe and Budgeting

Essential Readings

- Griffiths, D. (2017) *The Fashion Stylist's Handbook*, Fashionary, United Kingdom.
- Constantine, S., & Woodall, T. (2017) *The Body Shape Bible: Forget Your Size, Discover Your Shape, Transform Yourself*, Weidenfeld & Nicolson, United Kingdom.
- Funder, D. C. (2001) *The Personality Puzzle* (2nd ed.), W.W. Norton, United States.
- Daly, T. (2015) *Style Forever: The 50+ Guide to Dressing for Your Shape*, Harper Collins, UK.
- Prendergast, S. (2000) *The Fashion Business: Theory, practice, and application*, Berg Publishers, New York.
- Rasband, J. (2006) *Wardrobe strategies for women* (Student edition), Fairchild Books, United States.

Suggested Readings

- Phares, J. E. (1991) *Introduction to personality* (3rd edition), Harper Collins, United States
- Baumgartner, J. (2012) You Are What You Wear, Da Capo Press, United States.
- McCall, A. (1975) *Sewing in Color* (11th edition), Hamlyn Publishing Group, United Kingdom.

- Romano, C. (2001). Plan Your Wardrobe, New Holland Publishers, United Kingdom.
- Vogue and Harper's Bazaar for industry insights and trends.
- Online platforms like Pinterest and Instagram for current styling trends.

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

SKILL BASED COURSE

SBC FAS 05: COMMUNITY OUTREACH IN TEXTILE AND APPAREL SECTOR

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		
SBC FAS 05: Community Outreach in Textile and Apparel Sector	2	0	0	2		Nil

Learning Objectives

- To recognise the significance of textile heritage, sustainability, and contemporary interventions in community engagement.
- To apply hands-on skills to engage communities through textile-based initiatives.
- To design outreach programs that promote awareness, education, and social impact.
- To evaluate the effectiveness of community interaction through workshops, exhibitions, and social initiatives.

Learning Outcomes

The students would be able to:

- Organize and execute textile outreach activities.
- Develop engaging communication strategies for different audiences.
- Analyze and promote sustainable and traditional textile practices through community initiatives.
- Document and evaluate the impact of outreach programs.

PRACTICAL (Credits 2; Hours 60)

1. Understanding and Designing Textile Outreach Programmes

- Introduction to the concept of community outreach and engagement, and identification of target communities (schools, craft clusters, consumers, NGOs, etc.)
- Field visit to artisan communities, upcycling studios, or textile NGOs
- Case studies of successful textile outreach initiatives
- Designing outreach objectives and activities
- Communication strategies and storytelling for effective engagement

2. Community Engagement for Skill Development, Empowerment, and Impact Assessment

- Conducting hands-on workshops in sewing, tie-dye, block printing, embroidery, digital marketing, etc., and teaching sustainable practices like recycling/upcycling
- Organizing awareness campaigns (online/offline) and collaborating with NGOs for community engagement
- Planning and hosting outreach events such as exhibitions and textile melas for marketing and sales
- Collecting feedback and analyzing outreach impact through reports, presentations, and visual documentation
- Reflecting on learnings and identifying areas for improvement

Essential Readings

- Muthu, S. S., (Ed.). (2018). *Textiles and clothing sustainability: Recycled and upcycled textiles and fashion*. Springer.
- Gillow, J., & Barnard, N. (2014). *Indian textiles*. Thames & Hudson.
- Shah, A. (2021). *Crafting a future: Stories of Indian textiles and sustainable practices,* Niyogi Books Pvt. Ltd.
- Blake, B. R., Martin, R. S., & Du, Y. (2011). Successful community outreach: A step-by-step guide to developing and implementing a community outreach plan. (A How-To-Do-It Manual for Librarians). Neal-Schuman Publishers.

Suggested Readings

- Wood, D. (2007). The practical encyclopedia of sewing: Textile arts, techniques, craft, DIY projects, fashion design, fabric knowledge. Lorenz Books.
- Gunner, J. (2007). Shibori for textile artists. Kodansha International.

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

GENERAL ELECTIVE COURSES

GENERAL ELECTIVE COURSE GE 4: DYEING AND PRINTING WITH NATURAL DYES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit I	Distribution	of the Course	Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(II ully)
GE 4: Dyeing and Printing with Natural Dyes	4	3	0	1		Nil

Learning Objectives

- To provide theoretical and practical knowledge about various natural dyes
- To learn about the characteristics and sources of different natural dyes
- To introduce the extraction and application of natural dyes

Learning Outcomes

The students would be able to:

- Learn about the sources of various natural dyes
- Describe the different methods of extraction of natural dyes
- Explain the different mordants and styles of mordanting
- Learn the process of dyeing and printing with natural dyes

THEORY (Credits 3; Hours 45)

UNIT I: Introduction to Natural Dyes

14 Hours

This unit lays thrust on history, significance and classification of natural dyes

- History of Natural dyes
- Advantages of natural dyes over synthetic dyes
- Classification of Natural Dyes
 - o Based on source: Plant, animal/insect, microbial
 - o Based on colour obtained
 - O Based on chemical structure: Indigoid, anthraquinone, naphthoquinone, benzoquinone, flavonoid, carotenoid
 - O Based on application method: Mordant, Vat, Direct, Acid, Basic, Disperse
- Significant natural dyes: Indigo, Madder, Lac, Cochineal, Turmeric etc.

UNIT II: Extraction Process

15 Hours

This unit deals with processes involved in the extraction of natural dyes

- Collection, drying and storage of raw materials
- Methods of extraction of colourant- Aqueous, solvent, enzymatic, fermentation, supercritical fluid extraction, microwave and ultrasonic assisted extraction
- Methods of drying Spray drying, drying under vacuum, freeze drying

UNIT III: Mordants for Natural Dyes

6 Hours

This unit describes the various mordants and mordanting techniques used in colouration with natural dyes

- Types of mordants
 - Metallic mordants: Alum, Potassium dichromate, Ferrous sulphate, Copper sulphate etc
 - Oil based mordants
 - Bio mordants
- Mordanting methods: Pre Mordanting, post mordanting and simultaneous mordanting

UNIT IV: Dyeing and printing with natural dyes

10 Hours

This unit deals with application of natural dyes on textiles using dyeing and printing

- Preparation of fabric bio scouring
- Mordanting exhaust method, padding method
- Dyeing Dye concentration, pH, time and temperature
- Printing Role of thickening agents, Styles of printing direct, resist, mordant and discharge
- Botanical printing
- Use of natural dyes in Indian textile crafts Kalamkari, Bagh, Dabu, Ajrakh

PRACTICAL (Credits 1; Hours 30)

- 1. Extraction of various natural dyes using different methods
- 2. Preparation of shade card using combination of mordants and natural dyes on different fibres.
- 3. Dyeing with selected natural dyes on natural and synthetic fabrics
- 4. Printing with selected natural dyes on natural and synthetic fabrics: Direct, Resist and Mordant style
- 5. Eco printing

Essential Readings

• Gulrajani M L & Gupta D, Natural dyes and application to textiles, Department of textile technology, Indian Institute of Technology, New Delhi, India, 1992

- Kumbasar. E.P.A "Natural Dyes" 2017, IntechOpen
- Singh. H.B and Bharati. K.A 'Handbook of Natural dyes and pigments' 2015, Woodhead Publishing, India
- Kumbasar. E.P.A "Natural Dyes" 2017, IntechOpen
- Vankar. P.S "Natural dyes for textiles" 2017, Woodhead Publishing

Suggested Readings

- Daniel.M, Bhattacharya. S.D, Arya. A,Raole. V.M. "Natural Dyes: Scope and Challenges" 2021, Scientific Publishers, India
- Mohanty.B.C ,Chandramouli.K.V., Naik.H.D "Natural dyeing processes of india" 1987, Calico Museum of Textiles

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

GENERIC ELECTIVE COURSE GE 4: APPRECIATION OF INDIAN TEXTILES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit	Distribution	of the Course	Eligibility Criteria	Pre-requisite of the Course (if any)
		Lecture	Tutorial	Practical		
GE 4: Appreciation of Indian Textiles	4	3	1	0		Nil

Learning Objectives

- To elaborate on characteristic identifying features of various traditional textile crafts.
- To explain the sustainable and ethical practices in the textile craft sector.
- To describe care and maintenance methods for preserving traditional textiles.
- To discuss the challenges and innovations in textile crafts in modern times.

Learning Outcomes

The students would be able to:

- Identify regional variations in textile crafts.
- Relate with the sustainable and ethical practices used in textile crafts.
- Use appropriate care and maintenance practices for textile crafts.
- Assess the contemporary status of textile crafts.

THEORY (Credits 3; Hours 45)

UNIT I: Indian Heritage Textiles: Overview, Materials, Techniques and Regional Variations 20 Hours

This unit focuses on the characteristic features of a diverse range of traditional textiles produced across India.

- Embroidered textiles: Phulkari, Kantha, Chikankari, Kasuti, Kashmir Kashida, Gujarat embroidery
- Hand Woven: Banaras brocades, Kanjivaram, Jamdani, Baluchari, Paithani, Chanderi, Maheshwari, Gadwal, Kasavu, Mekhla Chador
- Tie-Dyed: Bandhani, Lehriya, Ikats (Patola, Bandha, Pochampalli, Telia Rumal)
- Painted-printed: Kalamkari, Ajrakh, Dabu, Bagh, Madhubani, Phad and Pichwai

UNIT II: Sustainability and Ethical Practices

8 Hours

This unit emphasizes the importance of sustainable and ethical practices in traditional textile crafts.

- Importance of sustainability in textile crafts (use of natural dyes, recycling of materials, environmental issues)
- Ethical practices: GI Tag, usage of standardization and authentication marks, fair wages to artisans
- Interventions: Government and non-government

UNIT III: Care and Maintenance for Longevity of Heritage Textiles

7 Hour

This unit dwells on best practices for preserving and maintaining traditional textiles.

- Cleaning and finishing
- Handling and storage
- Repair and restoration

UNIT IV: Traditional textiles in contemporary times

10 Hours

This unit addresses the contemporary status of traditional textile crafts.

- Challenges faced by artisans and consumers
- Innovations inspired by traditional textile crafts

TUTORIAL (Credit 1; Hours 15)

- 1. Visits to state emporia, craft fairs, and exhibitions such as Dastkar, Dilli Haat, Craft Museum, Hunar Haat.
- 2. Compare traditional and contemporary forms and products of any one textile craft.
- 3. Research project on any one Indian textile focus on history, cultural significance, technique, and contemporary relevance.
- 4. Case study of a designer engaged in innovating and preserving traditional textiles.

Essential Readings

- Fabric Art- Heritage of India. New Delhi: Abhinav Publications Naik S. (1996).
- Shailaja D. Naik, "Traditional Embroideries of India", A.P.H. Publishing Corporation, New Delhi, 1996
- Indian Textiles –by John Gillow and Nicholas Barnard, Om books International, New Delhi.
- The Sari-by Linda Lynton, Thames and Hudson Ltd London.
- Dhamija J. (1989). Hand-woven fabrics of India. Ahmedabad: Mapin Publishing pvt ltd

Suggested Readings

- Crill R., Murphy M. (1991). Tie-dyed Textiles of India. London: Victoria and Albert museum.
- Desai C. (1988). Ikat textiles of India. San Francisco: Chronical Books
- Sheila Paine, "Embroidered Textiles", Thames and Hudson Ltd., 1990.
- Chattopadhaya, K.D. (1995). Handicrafts of India. New Delhi: Wiley Eastern Limited

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

DEPARTMENT OF DEVELOPMENT COMMUNICATION AND EXTENSION

2-Year MSc Curriculum under NEP

COURSEWORK TRACK

DSC	DSC			DSE				SBC				Dissertation/Academic Project/Entrepreneurship
Paper Title		Credi istribu		Paper Title		Credit Distribut ion		Paper Title (2 Credits each)		Credi stribut		
(4 Credits each)	T h	Tu	Pr	(4 Credits each)	T h	T u	P r	(2 Credits each)	T h	Tu	P r	
SEMESTER I												
Pick All 3				Pick Any 2	2							
DSC DCE 101:Community Organisation and Leadership	3	1	0	DSE DCE 101: Participatory Development: Processes and Techniques	2	0	2					
DSC DCE 102: Sustainability and Extension Management	3	1	0	DSE DCE 102: Design for Innovation and Change OR DSE DCE 103: Livelihood and Skill Development OR DSE DCE 104: Social Marketing and Advertising	2	0	2	Pick Any 1 from the list of odd semester courses listed below			NIL	

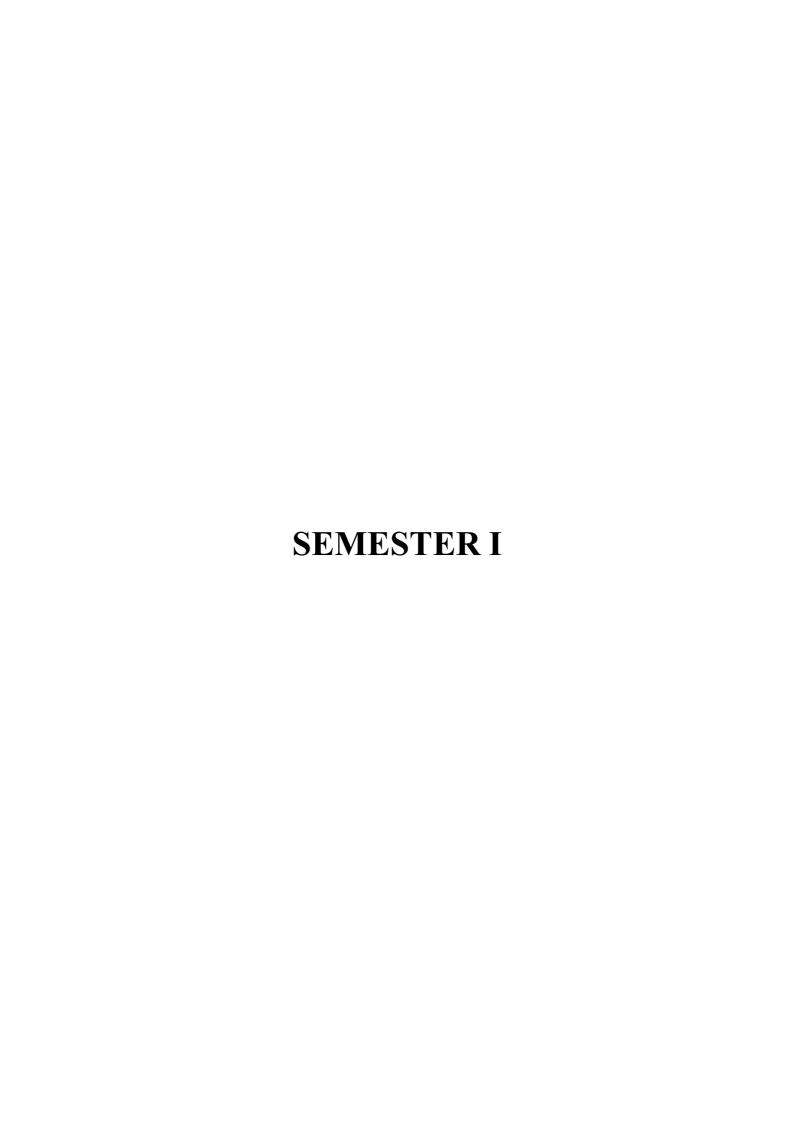
DSC DCE 103: Social and Behaviour Change: Theory & Practice	2	0	2	SEMESTER II						
Pick All 3	,			Pick Any	2					
DSC DCE 201: Social Policy and Advocacy for Change	3	1	0	DSE HSC 201: Advanced Research Methodology	3	0	1			
DSC DCE 202: Gender and Development	3	0	1	DSE DCE 202: CSR and Resource Mobilization OR DSE 203: ICTs and Community Media in Development	2	PIC		Pick Any 1 from the list of even semester courses listed below	NIL	
DSC DCE 203: Training for Development	2	0	2							
					EMES	STE	R II			
Pick All 2		1		Pick Any	3	ı				
DSC DCE 301: Project Monitoring and Evaluation	3	0	1	DSE HSC 301: Statistics and Data Management	3	0	1			
DSC DCE 302: New Media and AI for Development	2	0	2	DSE DCE 302: Knowledge Management and Strategic Communication OR	3	1	0	Pick Any 1 from the list of odd semester courses listed below	NIL	

				DSE DCE 303: Agriculture and Food Security DSE DCE 304: Social Entrepreneurship OR DSE DCE 305: Civil Society and Volunteer Engagement	2	0	2		
				SEMESTER IV					
Pick All 2	,			Pick Any 3					
DSC DCE 401: Climate Change, Green Technologies and Environment Action	3	0	1	DSE DCE 401: Public Administration and Governance OR DSE DCE 402: Consumption Behaviour and Sustainable Development	3	1	0	Pick Any 1 from the list of even	NIL
DSC DCE 402: Communication for Nutrition, Health and Wellbeing	2	0	2	DSE DCE 403: Peace, Human Rights and Humanitarian Action OR DSE DCE 404: Development Finance	3	1	0	semester courses listed below	INIL
				DSE DCE 405:	2	0	2		

	Lifelong Learning and Life Skills OR DSC DCE 406: ESG and Sustainability Reporting	

List of Skill Based Courses

Odd Semester	Even Semester
SBC DCE 01: Media for Change:	SBC DCE 02: Corporate
Print	Communication and Brand
	Management
SBC DCE 03: Internship,	SBC DCE 04: Media for Change:
Documentation and Reporting- I	Audio
SBC DCE 05: Traditional Media for	SBC DCE 06: Internship,
Change	Documentation and Reporting- II
	SBC DCE 08: Media for Change:
	Video



DISCIPLINE SPECIFIC CORE COURSE DSC DCE 101: COMMUNITY ORGANISATION AND LEADERSHIP

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
DSC DCE 101: Community Organisation and Leadership	4	3	1	0	As per admission criteria	Awareness for Community development

Learning Objectives

- To develop a comprehensive understanding of community, community structures, and community organization principles.
- To critically analyze social policies and their impact on grassroots development.
- To explore leadership theories and their application in community development.

Learning Outcomes

The students will be able to:

- Understand community structures and dynamics to facilitate effective organisation and leadership.
- Critically evaluate social policies and grassroots interventions to drive sustainable community change.
- Understand the leadership styles and traits and facilitating leadership devlopment for working with communities including advocacy, conflict resolution, and decision-making.

THEORY

(Credits 3; Hours 45)

UNIT I: Concept of Community, Community Structures, and Community Organisation 13 Hours

This unit introduces foundational concepts, theories, and the historical evolution of community organization.

- Concept of Community: Traditional and Modern; Characteristics of Community
- Types of Communities: Tribal, Rural, and Urban; Changing Norms and Customs
- Concept of Community Organization Need, Importance
- Principles and new ways of community organization
- Indian and International perspectives: Relationship between community organization and community development
- Approaches and goals of community development Welfare to rights-based
- Theoretical Orientation of Communities: Functionalism, Structuralism, Social Action Theory, Conflict Theory
- Types of Community Organizations: Collectives, Cooperatives, Civil Society Groups
- Community-Based Organizations (CBOs): Role in Mobilizing People and Influencing Outcomes *Select Case Studies*
- Care and Welfare Systems in Communities: Mechanisms and Institutions

UNIT II: People's Participation and Dynamics of Change in Community12 Hours This unit covers processes, strategies, and applications of community organization in various settings.

- Scope and Levels of People's Participation in Change Community Ownership and Engagement
- Stakeholder Participation Analysis in Development Programmes and Initiatives
- People's Movements: Issues, Processes, and Outcomes Work, Education, Food, Governance, Sustainable Consumption, etc.
- Role of Mass Media and ICTs in Community-Based Change
- Panchayati Raj Institutions and Democratic Governance
- Community Participation in Social Policy and Policy Change

UNIT III: Leadership in Community Organisation

10 Hours

This unit focuses on the principles, skills, and ethical aspects of leadership in community work.

- Concepts and Nature of Leadership; Leadership Styles and Models
- Leadership vs. Management
- NGO, Community, and Women Leaders
- Development of Leadership Approaches and Initiatives
- Leadership and Issues of Succession, Continuity, and Change
- Development Innovation: Concept and Role of Leadership
- Leadership and Sustainability of Development Action
- Leadership Challenges and Future Trends in Community Work

UNIT IV: Practice, Models and Tools of Community Organisation

10 Hours

This unit introduces applied aspects, models, and contemporary tools used in community organisation practice.

- Models of Community Organisation: Locality Development, Social Planning, Social Action
- Methods of Practice: Awareness Building, Advocacy, Capacity Building
- Participatory Rural Appraisal (PRA), Social Mapping, Resource Mapping, Stakeholder Analysis
- Group Work, Networking, Coalition Building
- Community Organising in Urban and Rural Settings Challenges and Innovations
- Participatory Learning and Action (PLA), Rights-Based and Asset-Based Approaches
- Documentation, Monitoring, and Evaluation of Community Interventions

TUTORIAL

(Credits1; Hours 30)

- Profiling of NGOs, Community-Based Organizations & Volunteer Organizations
- Case Study Analysis of Successful Community Development Initiatives in India or Globally
- Participatory Learning Action Techniques
- Community Needs Assessment Exercises
- Conflict Resolution Exercises
- Negotiation Exercises
- Case Study of effective community leaders
- Exercises on Monitoring and Evaluation of Community projects in India.

Essential Readings

- Hardina, D. (2012). *Interpersonal social work skills for community practice*. Springer Publishing.
- Mikkelsen, B. (2005). *Methods for Development Work and Research: A new guide for practitioners*. https://doi.org/10.4135/9788132108566
- Northouse, P. G. (2021). Leadership: Theory and practice (9th ed.). Sage Publications
- Oommen, T. K. (2010). Social Movements II: Concerns of Equity and Security. New Delhi: Oxford University Press.

Suggested Readings

- Bhattacharyya, J. (2004). *Theorizing community development*. Journal of the Community Development Society, 34(2), 5–34.
- Cox, F. M., Erlich, J. L., Rothman, J., & Tropman, J. E. (2019). *Strategies of community organization: A book of readings*. Waveland Press.

- Ife, J. (2013). Community development in an uncertain world: Vision, analysis, and practice. Cambridge University Press.
- Ledwith, M. (2020). *Community development: A critical and radical approach* (3rd ed.). Policy Press.
- Minkler, M. (Ed.). (2012). Community organizing and community building for health and welfare (3rd ed.). Rutgers University Press.
- Papa, M.J., Singhal, A. & Papa, W.H. (2006). Organizing for Social Change: A Dialectic Journey of Theory and Praxis. New Delhi: Sage Publications.
- Parikh, I. J., & Gupta, R. K. (2010). *Organizational leadership and culture: Insights from Indian organizations*. Macmillan Publishers India.
- Sinha, J. B. P. (2009). Culture and organizational behaviour. SAGE Publications India.
- Yukl, G. (2013). *Leadership in organizations* (8th ed.). Pearson.
- Ross, M. G. (1955). *Community organization: Theory, principles, and practice*. Harper & Row.

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DISCIPLINE SPECIFIC CORE

DSC DCE 102 : Sustainability and Extension Management Management

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
DSC DCE 102: Sustainability and Extension Management	4	3	1	0	Should be aware of concept of extension and its applications	Nil

Learning Objectives

- To develop an in-depth understanding of sustainability principles and their integration into extension management practices.
- To analyze the role of extension services in promoting sustainable development and community engagement.
- To evaluate strategies for effective policy implementation and stakeholder collaboration in sustainability initiatives.
- To foster critical thinking and problem-solving skills in addressing sustainability challenges through extension programs.

Learning Outcomes

The students will be able to:

- Demonstrate proficiency in sustainable development frameworks and extension management approaches.
- Advocate sustainability-driven extension programs.
- Develop analytical skills to assess the effectiveness of sustainability interventions.
- Acquire knowledge to formulate policies and engage stakeholders for sustainable development.

THEORY

(Credits 3; Hours 45)

UNIT I: Fundamentals of Sustainability and Extension Management 12 Hours This unit introduces students to the foundational concepts of sustainability, and the significance of extension management in promoting sustainable practices.

• Introduction to Sustainability

- The Three Pillars of Sustainability: Environmental, Social, and Economic
- Extension Management: Concepts and Importance
- Role of Extension in Sustainable Development
- Interrelationship between Sustainability and Extension

UNIT II: Strategies for Sustainable Extension Programs

12 Hours

This unit focuses on practical tools and methods for planning, executing, and assessing extension programs that advance sustainability goals.

- Participatory Extension Approaches for Sustainability
- Sustainable Agricultural and Rural Development Initiatives
- Designing Extension Programs with Sustainability Indicators
- Use of Digital Technology in Extension Services
- Policy and Governance in Sustainable Extension Programs

UNIT III: Stakeholder Engagement and Collaborative Extension Models. 11 Hours

This unit explores how to identify, involve, and collaborate with diverse stakeholders in sustainable development initiatives through extension activities.

- Extension Strategies for Sustainable Development
- Identifying and Engaging Key Stakeholders
- Public-Private Partnerships in Extension and Sustainability
- Community-Based Approaches and Role of Civil Society
- Capacity Building and Knowledge Dissemination in Extension
- Case Studies of Successful Sustainability Extension Initiatives

UNIT IV: Innovation, Challenges, and Future Trends in Sustainable Extension 10 Hours

This unit addresses innovations in extension practices, contemporary challenges, and evolving trends shaping the future of sustainable development.

- Innovations in Extension Tools and Practices
- Challenges in Implementing Sustainable Extension Projects
- Mainstreaming Sustainability into Extension Curricula and Policies
- Leveraging AI, IoT, and Big Data in Extension Services
- Future Trends in Sustainability and Extension Linkages
- Comparative Models from Global Best Practices

TUTORIAL (Credits 1; Hours 30)

- Case Studies on a Successful Sustainability Extension Program
- Impact Assessment of a Local Sustainability Initiative
- Stakeholder Mapping and Engagement Strategy for a Sustainability Project
- Comparative Analysis of Sustainability Policies in Different Regions
- Introduction to Sustainability and Its Global Importance
- Cases of Participatory Approaches in Extension Management
- Sustainable Agricultural Practices and Extension Strategies

• Exercises on Challenges and Future Trends in Sustainability and Extension Management

Essential Readings

- Brewer, F,L (2001). Agricultre Extension systems: An International Perspective. Erudition Books.
- Chambers, R. (2020). *Revolutions in development inquiry*. Earthscan.
- FAO. (2017). The state of food and agriculture: Leveraging food systems for inclusiverural transformation. Food and Agriculture Organization.
- Pretty, J. (2018). Sustainable intensification of agriculture: Greening the world's food economy. Routledge.

Suggested Readings

- Leeuwis, C., & Aarts, N. (2021). *Rethinking communication in innovation processes:* Creating space for change in complex systems. Journal of Agricultural Education and Extension, 27(1), 17-34.
- Swanson, B. E., Bentz, R. P., & Sofranko, A. J. (1997). *Improving agricultural extension: A reference manual.* FAO.
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development.* United Nations General Assembly.
- Rogers, E. M. (2003). *Diffusion of innovations (5th ed.)*. Free Press.
- Röling, N. G., & Wagemakers, M. A. (Eds.). (1998). Facilitating sustainable agriculture: Participatory learning and adaptive management in times of environmental uncertainty. Cambridge University Press.
- Singh, R. P. (2016). Extension strategies for sustainable agriculture. New India Publishing Agency.
- Sharma, F. L. (2017). *Agricultural extension in India: Strategies and impact.* Agrotech Publishing Academy.
- Smith, P., & Gregory, P. J. (2013). Climate change and sustainable food production. Proceedings of the National Academy of Sciences, 110(21), 8393-8398.
- Vanclay, F., & Leach, G. (2019). Sustainability and rural extension: New perspectives and practices. Springer.

DISCIPLINE SPECIFIC CORE

DSE DCE 101: SOCIAL AND BEHAVIOUR CHANGE: THEORY & PRACTICE

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
Code		Lecture	Tutorial	Practical		(ii any)
DSE DCE 101: Social and Behaviour Change: Theory & Practice	4	2	0	2	Should be aware of concept of communica tion for developmen t and behaviour change	Nil

Learning Objectives

- To develop an understanding of correlations between Human Behavior and Social and Behaviour Change
- To appraise the diverse theories and models related to Social and Behavior Change.
- To design Social and Behavior Change strategies that tackle a range of social and development issues.

Learning Outcomes

The students would be able to:

- Co-relate Human behaviour and Social and Behaviour Change
- Gain knowledge and proficiency in applying SBC concepts by appreciating the diverse theories and models related to Social and Behavior Change
- Develop a SBC intervention tool kit for any social/development related issue.

THEORY (Credits 2, Hours 30)

UNIT I: Human Behavior: An Insight

8 Hours

This unit underpins on the correlation between the multi-faceted and multi-layered nature of human behaviour.

- Human Behavior and its multi-faced nature
- Perception, Persuasion and Thinking
- Attitude: Definition, formation, Mapping attitudes: models and theories
- Heuristics and Biases

UNIT II: Foundations of SBC

8 Hours

This unit describes the concept, process and paradigm shifts in Social and Behavior Change

- Social and Behaviour Change: Concept & Relevance
- Difference between IEC, BCC, SBCC and SBC
- Process of SBC
- Paradigm shifts in SBC: scope and relevance.
- Need and Relevance of SBC Strategies

UNIT III: Social and Behaviour Change: Theories & Models

8 Hours

This unit explores the continuum of various SBC theories, models and its applications.

- Key concepts in SBC Theory: Individual and Social, Control, Threat, Risk, Reflection, Deliberation and Technologies & Innovation.
- Participatory theories and EE theories, Bullet Behavioural Theory
- Theories of Individual Behaviour Change: Theory of Planned Behaviour and Theory of Reasoned Action, Socio-ecological model, Health Belief Model, Stages of Change theory, Transtheoretical Model
- Nudges for behavior change
- Theories of Behavioural Economics: Decision Theory, Prospect Theory, Nudge Theory, Behavioural Game Theory, Evolutionary Psychology and others.

UNIT IV: Social and Behaviour Change: Applications

6 Hours

This unit explores the areas and potential of SBC applications.

- Applications of Behavioural economics and Social and Behavioural Change
- Application of SBC theories in strategizing communication for change: Design of communication strategies and messages
- SBC in addressing various issues such as health, environmental, and social justice

PRACTICAL (Credits2; Hours 60)

- Personality and Human Behaviour: Assessment and relevance
- Perception, Learning and Thinking: How perception makes a difference in understanding and interpreting communication messages
- Attitude measurement and relevance
- Approaches to SBC: Identifying what works and what does not
- SBC campaigns- elements,
- SBC campaigns- tools and techniques
- Critical Analysis of SBC Campaigns and strategies
- Analysis of campaign's theory of change messages using behavioural theories
- Monitoring and Evaluation (M&E): Importance of M&E in SBC programs, Key indicators for assessing impact, Tools and techniques for tracking progress and refining strategies.

- Development of SBC tool kit on any social/development issue related to with respect to:
 - Communication Principles
 - o Socio-economic context
 - Message design
 - o Channel Selection
 - o Audience targeting and segmentation
 - o Developing Feedback mechanism

Essential Readings

- Health Communication Capacity Collaborative HC3 (2016). Social and Behavior Change Communication for Emergency Preparedness Implementation Kit. © 2016, Johns Hopkins Center for Communication Programs
- Kotler, P. & Lee, N. (2011). Social Marketing: Influencing Behaviors for Good, 4th Ed. Thousand Oaks, CA: Sage Publications. (K&L).
- Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness.* Yale University Press.

Recommended Readings

- Agrawal, P.K., K. Aruldas & M.E Khan, 2014. *Training Manual on Basic Monitoring and Evaluation of Social and Behavior Change Communication Health Programs*. New Delhi: Population Council.
- 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
- Feldman, R. S. (2009). Discovering the life span. Upper Saddle River, NJ: Pearson.
- Hutchison, E.D. (2008). *Dimensions of human behavior: Person and environment,* 3rd Ed. (pp. 1–24). Los Angeles, CA: Sage on E-reserves.
- USAID. (2010). Behavior Change Communication (Bcc). Learning Resource Package Facilitator's Guide.
- USAID & FHI. (2002). Behavior Change Communication (BCC) for HIV/AIDS: A Strategic Framework. Arlington, U.S.A: Family Health International Institute for HIV/AIDS.

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

DISCIPLINE ELECTIVE COURSE

DSE DCE 101: Participatory Development: Processes and Techniques

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
Code		Lecture	Tutorial	Practical		(п апу)
DSE DCE 101: Participatory Development: Processes and Techniques	4	2	0	2	Should be aware of extension and role of participator y methods	Nil

Learning Objectives

- To understand the theoretical underpinnings and significance of participatory development.
- To develop skills in various participatory techniques and approaches for inclusive development.
- To apply participatory tools in real-world contexts to assess and implement development initiatives.
- To critically evaluate the impact and challenges of participatory development methodologies.

Learning Outcomes

Student will be able to:

- Demonstrate a comprehensive understanding of participatory development principles.
- Utilize participatory methods to facilitate community engagement and empowerment.
- Design and implement participatory interventions in development projects.
- Analyze and critique participatory development initiatives for effectiveness and sustainability.

THEORY (Credits 2, Hours 30)

Unit I: Theoretical Foundations of Participatory Development

8 Hours

This unit covers the evolution, principles, and critical perspectives of participatory development. It explores key theories, debates, and critiques, emphasizing the role of local knowledge and agency in development.

- Historical evolution of participatory development
- Key theoretical frameworks (Freire, Chambers, Arnstein's Ladder of Participation)

• Principles of participatory approaches

Unit II: Participatory Tools and Techniques

8 hours

This unit delves on the variety and scope of different participatory tools and techniques.

- Participatory Rural Appraisal (PRA) and Rapid Rural Appraisal (RRA).
- Tools: Social mapping, wealth ranking, Venn diagrams, timelines, transect walks.
- Focus group discussions, storytelling, participatory video.
- Ethical considerations in participatory tools use.

Unit III: Institutionalization and Application of Participatory Approaches

8 hours

This unit throws light on the institutionalization and application of participatory approaches in the current times.

- Integration in NGOs, government, and international development agencies.
- Participatory governance and budgeting.
- Case studies: Watershed management, health, education, climate resilience.
- Monitoring and Evaluation (M&E) in participatory contexts.

Unit IV: Critiques, Challenges, and Future Directions

6 hours

This unit puts forth the critiques, challenges and the future directions in the field of participatory development.

- Critiques and challenges of participatory development
- Co-optation and tokenism in participation.
- Gender, caste, class, and power in participatory spaces.
- Digital participation and tech-based engagement tools.

PRACTICAL (Credits 2; 60 hours)

- Typologies of communities: Rural, urban, tribal, virtual, etc. Examining their unique characteristics and challenges.
- Community as a social system: Interconnectedness of individuals, groups, and institutions.
- Power dynamics within communities: Understanding issues of inclusion, exclusion, and representation.
- Community needs assessment: Methods for identifying and prioritizing community needs.
- Participatory Techniques and People's participation
- Overview of PLA techniques: Social mapping, resource mapping, seasonal calendars, transect walks, focus group discussions, participatory rural appraisal (PRA) tools.
- Structured Techniques and Community Issues
- Developing tools and for understanding community issues
- Application of tools in community situation

- Analysis of techniques for eliciting participation & understanding issues
- Analysis of Community Issues
- Key dimensions of issue in community, community groups and other stakeholders involved.
- Developing a plan for addressing community issues
- Use of appropriate participatory methods for involving communities
- Mobilizing community for change

Essential Readings

- Beresford, P. (2021). Participatory ideology: From exclusion to involvement.
- Chambers, R. (1994). *Participatory rural appraisal (PRA): Analysis of experience*. World Development, 22(9), 1253-1268.
- Cornwall, A., & Jewkes, R. (1995). What is participatory research? *Social Science & Medicine*, *41*(12), 1667-1685.
- Hovmand, P. S. (2020). Community based system dynamics. Springer.
- Kumar, S. (2002). *Methods for community participation: A complete guide for practitioners*. ITDG Publishing.

Suggested Readings

- Das, V. (Ed.) (2003) *The Oxford Indian Companion to Sociology and Anthropology*. New Delhi: Oxford University Press.
- Ghais, S. (2005). *Process basics: The beginner's guide to facilitation. In Extreme facilitation: Guiding groups through controversy and complexity.* San Francisco, CA: Jossey-Bass
- Handy, C.B. (1983). *Understanding Organizations*. Harmondsworth: Penguin.
- M, Raju . (2012). Community Organization and Social Action: Social Work Methods And Practices. New Delhi: Regal Publications.
- Mikkelsen, B. (2002). *Methods For Development Work and Research*. New Delhi: Sage Publications.
- Mukherjee, N. (2012). Participatory learning and action: A trainer's guide. Sage.
- Tandon, R., & Brown, L. D. (Eds.). (2013). *Participation, citizenship and local governance*. Routledge.
- Omvet, G. (1993). Reinventing Revolution: *New Social Movements and the Socialist Tradition in India*. New Delhi: Routledge
- Oommen, T. K. (2010). Social Movements I: Issues of Identity. New Delhi: Oxford University Press.
- Patil, A. (2013). Community Organization and Development: An Indian Perspective. New Delhi: PHI Learning.

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DISCIPLINE SPECIFIC ELECTIVE

DSE DCE 102: Design for Innovation and Change

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course
		Lecture	Tutorial	Practical		(if any)
Design for Innovation & Change	4	2	0	2	Should have basic awareness about elements of art and principles of design	Nil

Learning Objectives

- To understand and apply design thinking and Human-Centered Design (HCD) principles to drive social and business innovation
- To develop practical skills in user research, ideation, prototyping, and testing solutions for real-world challenges
- To manage change initiatives using participatory and inclusive approaches
- To analyze the design considerations of traditional and contemporary oral and visual media

Learning Outcomes

The students would be able to:

- Apply UNICEF's HCD framework to design and implement user-centered solutions.
- Design, prototype, and test innovative and sustainable solutions for diverse challenges.
- Lead and manage change initiatives using participatory and inclusive approaches.
- Understand the design considerations of traditional and contemporary oral & visual media and create innovative media

THEORY

(Credits 2; Hours 30)

UNIT I: Foundations of Design Thinking

8 Hours

This unit explores the fundamentals of design and design thinking touching upon key concepts and theories

- Definitions, Concepts, and Theories of Design for Innovation & Change
- Elements of Art & Principles of Design
- Introduction to Design Thinking: Principles and Process
- Human-Centered Design and Empathy Mapping
- Ethics, Inclusion, and Participatory Design in HCD

UNIT II: Innovation & Change

8 Hours

This unit explores the fundamentals of innovation strategies, and change management frameworks to drive sustainable and impactful transformations in organizations and society.

- Theories of Creativity and Innovation
- Systems Thinking in Innovation
- Innovation Management and Organizational Change
- Behavioral Science and Change Adoption
- Business Model Innovation and Value Proposition
- Ethics and Sustainability in Innovation

UNIT III: Methods for effective Design

8 Hours

This unit highlights the potential of varied methods that complement the design strategy. It explores the key imperatives for ensuring efficacy in message design to drive change.

- Message design: Principles, Approaches and Appeals
- Audience Analysis
- Pitching and Storytelling for Innovation
- Methods for using media effectively
- Strategy planning, implementation & evaluation

UNIT IV: Media for effective Design

6 Hours

This unit highlights the potential of varied types of media that can be used to bring about change. It explores the continuum of traditional to contemporary media and its efficacy in harnessing change.

• Media Classification

- Traditional Media for Change: Puppetry, Street Theatre, Games, Scrolls etc
- Digital Media for Change: Social Media, Apps, Digital billboards, Dashboards etc

PRACTICAL (Credits 2; Hours 60)

- Ideation Techniques: Brainstorming, SCAMPER, and Mind Mapping
- Rapid Prototyping
- Minimum Viable Product (MVP) Development
- User Testing and Iterative Design
- Real-world Problem-Solving through Live Projects
- Development of Design/Innovation Kit: Traditional Media
- Development of Design/Innovation Kit: Contemporary Media
- Innovation Metrics and Performance Evaluation
- Creating design using open source software and Artificial Intelligence (AI)
- Final Project: Designing
- Presenting an Innovation Solution

Essential Readings

- Brown, T. (2009). *Change by design: How design thinking creates new alternatives for business and society.* Harper Business.
- Kolko, J. (2015). *Design thinking: A guide to creative problem solving for everyone.* Harvard Business Review Press.
- Lewrick, M., Link, P., & Leifer, L. (2020). The design thinking toolbox: A guide to mastering the most popular and valuable innovation methods. Wiley.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.

Suggested Readings

- Christensen, C. M. (1997). *The innovator's dilemma: When new technologies cause great firms to fail.* Harvard Business Review Press.
- Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2014). *Value proposition design: How to create products and services customers want.* Wiley.
- Kelley, T., & Kelley, D. (2013). *Creative confidence: Unleashing the creative potential within us all.* Crown Business.
- Kotter, J. P. (2012). *Leading change*. Harvard Business Review Press.

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DISCIPLINE SPECIFIC ELECTIVE COURSE DSE DCE 103: LIVELIHOOD AND SKILL 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 (if any)
		Lecture	Tutorial	Practical		(ii uiiy)
DSE DCE 103: Livelihood and Skill Development	4	2	0	2	Should be aware about concept of livelihood opportuniti es and need for capacity building	Nil

Learning Objectives

- To understand the concept of livelihood, sustainability, and key livelihood goals such as risk reduction, empowerment, and dignity.
- To analyze livelihood intervention frameworks and highlight the role of various agencies, organizations, and NGOs in Skill development and capacity building.
- To understand the concept of skill development and its significance in social and economic development.
- To learn about various skill development schemes and policies in India.

Learning Outcomes

The students would be able to:

- Explain the importance of livelihood assets and their impact on rural and urban livelihoods.
- Evaluate strategies for livelihood enhancement and the effectiveness of government policies and initiatives.
- Develop a clear understanding of the concepts in skill development, its scope, and its significance.
- Recognize and appreciate the role of various agencies, organizations, and NGOs in facilitating skill development and capacity building.

THEORY (Credits 2; Hours 30)

UNIT I: Livelihood & Sustainability

8 Hours

This unit explores the concept of livelihood, sustainability, and key goals like risk reduction and empowerment with the help of various frameworks and opportunities.

- Concept of Livelihood: Meaning, sustainability, and livelihood goals (risk, sustainability, empowerment, dignity), Understanding livelihood Assets and its importance, Urban and Rural Livelihood.
- Understanding Livelihoods and Livelihood Intervention Framework- Components and application, Strategies for livelihood enhancement
- Government policies and initiatives, Government and NGO Support for Livelihood Development
- Livelihood Opportunities in Various Sectors: Agriculture, Handicrafts, Retail, IT, and Services, etc., Urban and Rural Livelihood Differences.

UNIT II: Livelihood Opportunities and Capacity Building

8 Hours

This unit lays thrust on the importance of Capacity building in enhancing livelihood opportunities. It addresses SME challenges, access to credit, microfinance, and employment issues in urban and rural settings.

- Concept of Capacity Building and its importance in enhancing livelihood opportunities
- Capacity Building and Skill Development: Importance of Training and Entrepreneurial Development Programs (EDP), Role of Technical and Vocational Education in Employment, Digital and Financial Literacy for Sustainable Livelihoods
- Role of SME, challenges in access to credit, microfinance, and marketing support; enterprise networking, and strategic resource planning for SMEs.
- Challenges in Livelihood and Employment: Rural and urban perspectives, Problems of SMEs, Formal and informal sector challenges

UNIT III: Skill Development

7 Hours

This unit focuses on the role of skill development in enhancing employability, and sustainable livelihoods.

- Skill Development: Concept, scope, and significance of Skills in economic and social development
- Government Schemes, Policy, and Institutional Frameworks: PMKVY, PM-DAKH Yojana, National Skill Development Mission, NSQF, NSDC, Sector Skill Councils
- Types of Skills and Workforce Readiness: Technical, vocational, digital, and soft skills for industry-specific employment and Placements, Soft and Life Skills in Personal development

This unit focuses on the concept, scope and scalability of entrepreneurship. It covers various, programmes, training models, and emerging trends in workforce development.

- Entrepreneurship: Concept, Scope & Scalability
- Entrepreneurial and Self-Employment Skills: Start-ups & Enterprise development, financial literacy, and government initiatives (e.g., Start-up India, Mudra Yojana, MSME, etc.)
- Training Models and Capacity Building: Industry-academia collaborations, apprenticeship programs, and role of NGOs in skill Development
- Skill Development & Entrepreneurship programs: Women Entrepreneurs, addressing skill gaps, emerging opportunities in AI-driven economy

PRACTICAL

(Credits 2; Hours 60)

- Case Study Analysis: Analyze real-life case studies of sustainable livelihood models. Identify key livelihood assets and intervention strategies used.
- Community Survey: Conduct a field visit to a rural or urban area to assess local livelihood sources. Interview people to understand their income sources, challenges, and support received.
- Livelihood Mapping Exercise: Create a livelihood asset map showcasing natural, financial, social, human, and physical capital in a given area.
- Policy Review and Presentation:
 Research government policies and NGO initiatives related to livelihood development.
 Present findings on how these policies impact employment and sustainability.
- Organize a field visit to a local farm or agricultural cooperative. Discuss how modern farming techniques, agro-processing, and organic farming can provide sustainable livelihoods.
- Present a case study of a rural vs. an urban small business. Students can compare and contrast factors like market access, infrastructure, and workforce challenges.
- Community Project Students identify a local livelihood challenge (e.g., lack of clean drinking water, low access to education) and develop a project plan to address it. They would need to incorporate skills such as community engagement, resource management, and local entrepreneurship.
- Critical Analysis of Skill Development Government Initiatives
- Designing Skill Training Workshop on any Livelihood Generation Activity
- Case Study of Successful Women Entrepreneurs
- Field Visit & Report Writing of any Skill Development Organisation

Essential Readings

- Baumgartner, R. (2004). *In search of sustainable livelihood systems: Managing resources and change* (Hardcover ed.). Routledge.
- Chatterjee, B., & Karmakar, A. K. (Eds.). (2015). Rural livelihoods in India: *Measurements and policies* (Hardcover ed.). Springer.
- Morse, S., & McNamara, N. (2013). Sustainable livelihood approach: A critique of

- theory and practice. Springer.
- Ramaswamy, B., Sasikala Pushpa, R., & Gururaj, M. B. (2019). *Skill development in India* (2019th ed.). Prabat Paperbacks.

Suggested Readings

- Bedi, G.; Shiva, V. (2002) Sustainable Agriculture and Food security. New Delhi: Sage Publications.
- Banerjee, T., Ray, S. K., & Ghosh, M. (2017). New horizons in development: Education, Skill Development and economic growth in India. Madhav Books (P) Ltd.
- De Haan Leo. J. (2012). The Livelihood Approach: A Critical Exploration, ErdkundeBd. pp. 345-357: https://www.jstor.org/stable/41759104
- Kumar, A. & Tripathi, P. K. (2014). *Skill development in India: An overview of initiatives and Schemes*. Kanishka Publishers, Distributors.
- Ministry of Skill Development and Entrepreneurship, Government of India. (2022). Annual report 2021–2022. https://www.msde.gov.in/sites/default/files/2022-06/Annual Report 2021-22 Eng.pdf
- Potter, R., Conway, D., Evans, R., & Lloyd-Evans, S. (2014). Rural livelihoods and sustainable communities. In *Key concepts in development geography* (Chapter 15). SAGE Publications.https://doi.org/10.4135/9781473914834.n15

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DISCIPLINE SPECIFIC ELECTIVE COURSE

DSE DCE 103: Social Marketing and Advertising

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &		Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
DSE DCE 103: Social Marketing and Advertising	4	2	0	2	Should be aware of basics of digital marketing and social media campaigns	Nil

Learning Objectives

- To understand the concepts and theories of social marketing and advertising.
- To develop strategies for behaviour change using social marketing frameworks.
- To analyse real-world social marketing campaigns and their impact.
- To create effective social advertising campaigns for various media platforms.

Learning Outcomes

After completion of the course, the students would be able to:

- Define key concepts, principles, and theories of social marketing and advertising.
- Explain strategic social marketing campaigns with clear objectives and target outcomes
- Assess ethical issues and challenges in social marketing practices.
- Develop strategic social marketing campaigns with clear objectives and target outcomes

THEORY

(Credits 2; Hours 30)

UNIT I: Foundations of Advertising

8 Hours

This unit introduces the concept, objectives, and significance of advertising, along with its historical evolution and various types.

- Understanding Advertising and its History-Types and Appeals in Advertising
- Advanced Advertising Theories: Elaboration Likelihood Model (ELM), Semiotics in Advertising, Heuristic-Systematic Model (HSM), Consumer decision making Model, Framing Theory
- Advertising vs. Publicity & Propaganda: Intersections in political communication, corporate branding, and activism.
- Regulatory and Ethical Issues Global vs. Indian frameworks, digital advertising ethics, and AI-driven marketing.

UNIT II: Foundations of Social Marketing

8 Hours

This unit lays thrust on the core concepts and principles of social marketing and advertising, differentiating them from commercial marketing.

- Definition and Scope of Social Marketing-History of Social Marketing
- Differences between Social Marketing, Commercial Marketing, and Cause Marketing
- Key Concepts and Principles of Social Marketing (Behaviour change, audience segmentation, and exchange theory)
- Ethics and Challenges in Social Marketing
- Introduction to Social Advertising and its Role in Public Awareness
- Influencer Marketing for Social Cause

UNIT III: Advertising Theories & Behavior Change

8 Hours

This unit focuses on behavioural change theories that underpin social marketing strategies and their application in driving social change.

- Behavioural Change: Theories and Models in Social Marketing
- The 4Ps of Social Marketing
- Social Advertising Models: Hierarchy of Effects Model, AIDA Model

UNIT IV: Research in Advertising & Social Marketing

6 Hours

This unit focuses on research and its importance in advertising strategy and social marketing

- Research Methods in Social Marketing: Formative Research, Pre-testing, and Pilot Testing
- Audience Segmentation and Targeting Techniques
- Message Development and Social Listening
- Case Studies

PRACTICAL

(Credits 2; Hours 60)

- Community Needs Assessment Survey
- Identification of Social Advocates
- Audience Research and Campaign Planning
- Campaign Design and Development, Strategy, and Media Planning
- Impact Assessment of campaign
- Audio-Visual PSA analysis
- Audio-Visual PSA Production
- Workshops and Interactive Activities
- Experiential Learning and Industry Exposure
- Tools for Data Collection and Analysis
- Campaign Impact Assessment

Essential Readings

- Chunawala, S. A. (2018). *Advertising: An Introduction and Evolution*. In *Foundations of advertising- Theory and Practice*. Himalaya Publishing House.
- Kartajaya, H., Kotler, P., & Hooi, D. H. (2019). *Marketing 4.0: Moving from Traditional to Digital*. World Scientific Book Chapters, 99-123.
- Kotler, P., & Lee, N. (2011). *Social Marketing: Influencing Behaviors for Good* (4th Ed.). Sage Publications.
- Lee, N.R., & Kotler, P. (2020). Developing marketing intervention strategies, Chapter 9 Step 6: Crafting a desired positioning. In *Social Marketing, Behaviour Change for Good*. SAGE Publications Asia-Pacific Pte. Ltd.

Suggested Readings:

- Andreasen, A. R. (2006). Social Marketing in the 21st Century. Sage Publications.
- Andreasen, A. R. (2002). *Marketing Social Marketing in the Social Change Marketplace*. Journal of Public Policy & Marketing, 21(1), 3-13.
- Donovan, R., & Henley, N. (2010). Social Marketing and Behaviour Change: Models, Theory and Applications. Routledge.
- Dominici, G. (2009). From marketing mix to e-marketing mix: A literature overview and classification. *International Journal of Business and Management, 4*(9), 17-24.
- Hastings, G. (2007). Social Marketing: Why Should the Devil Have All the Best Tunes? Elsevier.
- Kotler, P., & Zaltman, G. (1971). *Social Marketing: An Approach to Planned Social Change*. Journal of Marketing, 35(3), 3-12.
- Lee, N.R., & Deshpande, S. (2013). Developing social marketing strategy. In *Social Marketing in India* (pp. 185-308). Sage Publications India Pvt. Ltd.
- Peattie, S., & Peattie, K. (2003). Social Marketing: A Pathway to Consumption Reduction? *Journal of Business Research*.
- World Health Organization (WHO) Social Marketing for Health:who.int
- UNICEF Behaviour Change Communication (BCC) and SocialMarketing: unicef.org

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

SEMSTER II

DISCIPLINE SPECIFIC CORE COURSE DSE DCE 201: SOCIAL POLICY AND ADVOCACY FOR CHANGE

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
Code		Lecture	Tutorial	Practical		(п апу)
DSE DCE 201: SOCIAL POLICY AND ADVOCACY FOR CHANGE	4	3	1	0		Awareness of theories / concepts related to social policy and advocacy

Learning Objectives

- To understand the key theories and frameworks underpinning social policy development and advocacy.
- To analyse the effectiveness of various advocacy strategies in influencing policy change in the areas of health, environment, education, social justice and gender equity
- To develop skills to engage in policy analysis, advocacy, and stakeholder engagement.

Learning Outcomes

The students would be able to:

- Critically assess social policies and their implications for marginalized communities.
- Design and implement evidence-based advocacy campaigns for social change.
- Appreciate the impact of policy interventions in the areas of health, environment,
- education, social justice and gender equity

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THEORY (Credits 3; Hours 45)

UNIT I: Foundations of Social Policy

14 Hours

This unit lays thrust on the concept and theories of social policy touching upon the historical and contemporary perspectives on social policy.

• Definitions, Concepts, and Theories of Social Policy

- Historical and Contemporary Perspectives on Social Policy
- Sustainable Development Goals: Mandate and Scope
- The Role of Government, NGOs, and International Organizations
- Role of Niti Ayog of India in Policy & Program Development

UNIT II: Policy Planning

12 Hours

This unit highlights the various issues that concern the process of policy planning

- Policy Issues of poverty, decent employment, health, education etc.
- Policy Analysis and Frameworks
- Constitution of India and major amendments
- Linkages between planning, policy and vulnerable groups and areas.
- Process of Policy Planning
- Making Policy Planning participatory: Role of CSOs and NGOs

UNIT III: Policy Implementation and Evaluation

9 Hours

This unit deals with understanding of policy implementation and evaluation

- Policy Implementation Challenges
- Tools for Policy Assessment and Impact Evaluation
- Case Studies of Successful and Failed Policy Interventions
- Engaging Stakeholders in Policy Processes
- Future Directions in Social Policy and Advocacy

UNIT IV: Advocacy and Social Change

10 Hours

This unit highlights the various theories and models of advocacy along with approaches and strategies for advocacy and social change

- Advocacy Concept, process, types, strategies and functions.
- Differences between advocacy and behaviour change communication
- C4D: Concept, Approaches and Trends
- Theories and Models of Advocacy
- Strategies for Effective Policy Advocacy
- Lobbying, Grassroots Mobilization, and Public Campaigns
- Role of Social Media in Advocacy
- Ethical Considerations in Advocacy
- Advocacy in health, environment, education, social justice and gender equity

TUTORIAL (Credits 1; Hours 15)

- Case study analysis on social policy (health/climate change/education)
- Policy Advocacy Simulation Activity (Through Role Plays, MUN, Mock Parliamentary sessions)
- Policy SWOT Analysis
- Policy brief writing

- Social Media & Digital Advocacy (Analysis of social media/digital advocacy campaigns)
- Field visits to NGOs working in areas of Health/ Environment/ Education/ Social Justice/Gender Equity
- Website analysis

Essential Readings

- Birkland, T. A. (2020). *An introduction to the policy process: Theories, concepts, and models of public policy making* (5th ed.). Routledge.
- Jansson, B. S. (2019). *Becoming an effective policy advocate: From policy practice to social justice* (8th ed.). Cengage Learning.
- Stone, D. (2012). *Policy paradox: The art of political decision making* (3rd ed.). W.W. Norton.

Suggested Readings

- Bapat, J. (2005). *Development Projects and Critical Theory of Environment*. New Delhi: Sage Publications.
- Cairney, P. (2019). *Understanding public policy: Theories and issues* (2nd ed.). Red Globe Press.
- Easterling, D., Gallagher, K.; Lodwick, D. (2003) *Promoting Health at the Community Level*. Thousand Oaks, California: Sage Publications.
- Gardner, A. & Brindis, C. (2017). *Advocacy and Policy Change Evaluation: Theory and Practice*. USA: Stanford Business Books. ISBN-13: 978-0804792561
- Kingdon, J. W. (2014). Agendas, alternatives, and public policies (2nd ed.). Pearson.
- Sabatier, P. A., & Weible, C. M. (Eds.). (2014). *Theories of the policy process* (3rd ed.). Westview Press.
- Stachowiak, S. (2013). Pathways for change: 10 theories to inform advocacy and policy change. Centre for Evaluation Innovation.

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DISCIPLINE SPECIFIC CORE COURSE DSC DCE 202: GENDER & DEVELOPMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credi	t Distributi Course	on of the	Pre- requisite of the Course (if any)	Eligibility Criteria
Code		Lecture	Tutorial	Practical		
DSC DCE 202: Gender & Development	4	3	0	1	Should be aware of concept of gender, developmen t and society	As per admission

Learning Objectives

- To examine the historical and contemporary context of gender relations in India, exploring the socio-cultural, economic, and political dimensions of gender inequalities.
- To critically analyze the theoretical frameworks and conceptual tools used in gender and development studies, including feminist perspectives and intersectionality.
- To evaluate the impact of development policies and programs on women's lives in key sectors such as education, health, employment, agriculture, and governance.
- To develop an understanding of the strategies and interventions needed to promote gender equality and women's empowerment in India.

Learning Outcomes

The students would be able to:

- Comprehend the historical evolution of gender relations and the impact of social, economic, and political forces on women's lives in India.
- Articulate and apply diverse feminist perspectives and intersectional analysis to understand gender dynamics in India.
- Assess the impact of development interventions and propose gender-sensitive solutions in various sectors.
- Work towards advocacy of policies and programs that promote gender equality and women empowerment.

THEORY (Credits 3; Hours 45)

UNIT I: Key Concepts related to Gender

8 Hours

This unit lays the foundation for understanding key concepts related to gender.

- Concept of Gender
- Gender vs. Sex
- Gender Roles
- Gender Identity
- Gender Relations
- Patriarchy, Matriarchy, Masculinity, and Hegemonic Masculinity

UNIT II: Gender and Development in India: Historical and Contemporary Context 12 Hour

This unit examines the historical evolution of gender relations in India, from pre-colonial times to the present and analyzes the impact of social, economic, and political forces on women's lives, including the role of women's movements.

- Gender relations in pre-colonial and colonial India
- Women's movements and their impact on development policies
- Gender and the Indian Constitution and legal framework
- Demographic trends: sex ratio, fertility, mortality
- Gender and poverty, inequality, and access to resources

UNIT III: Theoretical Frameworks and Gender Concepts

15 Hours

This unit lays the foundation for understanding gender by introducing key theoretical concepts and frameworks.

- Life cycle approach to gender studies and violence faced by women
- Feminist Theories (Liberal, Socialist, Radical, Intersectionality, Post-colonial)
- Gender and Development: WID, WAD, GAD approaches
- Gender Analysis Frameworks: Introduction and concept, Types, Applications

UNIT IV: Gender, Development, Social change

10 Hours

This unit delves into the gendered dimensions of development in key sectors such as education, health, employment, agriculture, and environment. It explores the specific challenges and opportunities faced by women in these sectors.

• Examining gender and development using index based approach: role of indices such as GDI, GGI, GPI, WEI, GGPI etc.

- Participation, performance and outcomes of women in key sectors: Education, Health and reproductive health, labour force participation and income, Asset and land ownership, Politics, Agriculture, Environment including climate change.
- Gender and media: representation of women in media, impact on gender stereotypes
- Gender and social movements: role of women in social change and activism

PRACTICALS (Credits 1; Hours 30)

- Discussions on current events related to gender and development
- Case study of women targeted development programs
- Study of portrayal of women in films- Film screenings followed by discussion and analysis
- Interface with experts working in the field of gender studies and development
- Genderlogues
- Research project on gender related issues followed by presentation

Essential Readings

- Jain, D. (2018). Close encounters of another kind: Women and development economics. SAGE Publications India.
- Kabeer, N. (2020). Reversed realities: Gender hierarchies in development thought. Verso Books
- Momsen, J. (2019). Gender and development (3rd ed.). Routledge.
- Parpart, J. L., Connelly, M. P., &Barriteau, V. E. (Eds.). (2022). *Theoretical perspectives on gender and development*. International Development Research Centre.

Suggested Readings

- Bannerjee, N. (2006). Gender and poverty in India. Oxford University Press.
- Basu, A. (2016). *Women's movements in India: A 21st-century perspective*. Sage Publications.
- Desai, M. (2010). The politics of women's rights in India: Activism and evolving strategy. Routledge.
- Dreze, J., & Sen, A. (2013). *An uncertain glory: India and its contradictions*. Princeton University Press. (Relevant chapters on health and education)
- Hooks, B. (2000). Feminism is for everybody: Passionate politics. South End Press.
- Jain, D., & Rajput, P. (Eds.). (2011). *Narratives from the women's studies family: Recreating knowledge*. SAGE Publications.
- John, M. E. (2011). *Gender and politics in India*. Oxford University Press.
- Kapur, R. (2006). Erotic justice: Law and the new politics of gender. Routledge.
- Laclau, E., & Mouffe, C. (2001). Hegemony and socialist strategy: Towards a radical democratic politics. Verso.
- Nussbaum, M. C. (2000). Women and human development: The capabilities approach. Oxford University Press.
- Ramaswamy, S. (2010). *Gender and labour in India: Skills, knowledge and mobility*. Routledge.
- Visaria, L. (2007). Gender, health, and development in India. Sage Publications.

• Latest reports by National and International organisations: Human Development Report, UNDP/Global Gender Gap Report (WEF);The World's Women, United Nations; Women and Men in India, MOSPI, GOI

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DISCIPLINE SPECIFIC CORE COURSE DSC DCE 203: TRAINING FOR DEVELOPMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Pre- requisite of the Course	Eligibility Criteria
Couc		Lecture	Tutorial	Practical	(if any)	
DSC DCE 203: Training and Development	4	2	0	2	Should be aware of the concept and significance for training for developmen t	As per admission

Learning Objectives

- To familiarize with the concept and significance of training for development.
- To understand the training process and the functions of different phases of training.
- To know how different training approaches can be used to achieve various development goals.
- To impart knowledge and skills for conducting effective training to deal with development challenges.

Learning Outcomes

The students would be able to:

- Assess the importance and scope of training for development.
- Learn the functions of different phases of the training process.
- Conceptualize and implement need-based training programs for different stakeholders to build knowledge, attitudes and skills
- Critically evaluate the different training strategies and their role in promoting development.

THEORY (Credits 2; Hours 30)

UNIT I: Training for Development: Concept

8 Hours

This unit explores the significance of training and capacity-building initiatives in fostering

professional growth, organizational effectiveness, and societal development.

- Importance and Scope of Training for Development- National and Global Perspectives
- Government policies, programs, and institutions for training and capacity building for development initiatives
- Types, Approaches, Models, Theories, and Methods of training for bridging the gaps in knowledge, attitudes, and skills
- Principles of adult learning, Learning theories, and models
- Training and capacity building needs of various client groups- communities; field level, midlevel, and other functionaries of development agencies, corporates and others

UNIT II: Training Tools

6 Hours

This unit covers various training methodologies emerging innovations in the field of training and development. It also lays emphasis on Training Tools and Strategies

- Training methods—types, purpose, advantages, limitations, applications, and adaptations
- Participatory methods (lecture, demonstration, role play, case study, games, simulations, use of audio-visual aids, and technology-based methods)

Unit III: Being an Effective Trainer

6 Hours

This unit throws light on self development of a trainer, his/her key roles an competencies.

- Self-development of a trainer
- Roles and competencies of an effective trainer
- Mobilizing and working with small groups for training- communication, leadership, group dynamics, conflict resolution, team building
- Training needs assessment of individuals and organizations- techniques and their application

UNIT IV: Designing, Executing, and Evaluating Training Modules

10 Hours

- Analysis of training programs for different stakeholders
- Designing and conducting training programmes for development- objectives, learning outcomes, contents, methods, materials & resources, feedback, evaluation, and budget
- Tools and techniques for training needs assessment: Surveys, Interviews, Focus Group Discussions and Skill Gap Analysis
- Understanding various learning goals and outcomes for specific target groups
- Development of Training modules and materials: manuals, presentations, case studies, and e-learning resources
- Implementation of training programmes: Time management, resource allocation, and participant engagement strategies
- Importance and Methods of evaluation, follow-up, and impact assessment of training: Methods, Models, tools and techniques, and innovations

PRACTICAL (Credits 2; Hours 60)

- Self-development exercises for trainers
- Exercises in Team building
- Exercises on Leadership development
- Practice of participatory training tools and techniques: on-site
- Practice of participatory training tools and techniques: online using digital technology and AI tools
- Conduct a training needs analysis for an organization
- Plan and Design a training program
- Conduct a training program
- Critical Evaluation of Prior Training Programs
- Designing and Conducting a ToT for different stakeholders
- Development of Training IEC

Essential Readings

- Noe, R. (2017). Employee training & development (7th ed.). New York, NY: McGraw-Hill Education. ISBN: 978-0-07-811285-0.
- PRIA (2002). Methods of Participatory Training. New Delhi. Participatory Research in Asia
- Rolf P. Lynton & Udai Pareek (2011). Training for Development 3rd rev. ed. SAGE Publications India Pvt Ltd.
- Silberman, M. (Mel). (2015). Active training: A handbook of techniques, designs, case examples, and tips. (any edition). San Francisco, CA: Pfeiffer. ISBN: 9781118972014.

Suggested Readings

- Agochiya D. (2002). Every Trainer's Handbook. New Delhi, Sage publisher.
- Bhatia S.K, (2005). Training & Development; Concepts and Principles, Ch-1(3-8), ch-2(9-26), ch-3(28-38).
- Dhama, O.P. and Bhatnagar, O.P. (2003). Education and Communication for Development. New Delhi.
- Furjanic, S. (Sheila). (2000). Turning training into learning: How to design and deliver programs that get results. New York, NY: AMACOM.
- Goldstein, I. L, & Ford, J. K. (2002) Training in organizations (any edition). Belmont, CA: Wadsworth.
- James W. Thacker C, (2004). Effectiveness Training-Systems, Strategies and Practices. Pearson Education.
- Kraiger, K (Kurt). (2003). Creating, implementing, and managing effective training and development. San Francisco, CA: Jossey-Bass.
- Lyton R and PareekU. (1990). Training for Development. New Delhi, Vistaar Publications.
- Phillips, J. (Jack). (2002). How to measure training results: A practical guide to tracking the six key indicators. San Francisco, CA: McGraw-Hill.

• Subedi, N R, (2008). Advocacy Strategies and Approaches: A Training of Trainers Manual. International.

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DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HSC 201: ADVANCED RESEARCH METHODS IN HOME SCIENCE

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(ii aiiy)
DSE HSC 201: Advanced Research Methods in Home Science	4	3	0	1	As per admission	Nil

Learning Objectives

- To explain the types and approaches to research.
- To describe the principles and process of quantitative research approach.
- To describe the principles and process of qualitative research approach.
- To elaborate the critical ethical issues for planning, conducting and publishing research.

Learning Outcomes

The students would be able to:

- Describe the types, paradigms and approaches to research.
- Employ the principles and process of quantitative research approach.
- Appraise the principles and process of qualitative research approach.
- Apply the principles of ethics in designing, executing and reporting of research.
- Formulate a research proposal in any specialized area of Home Science.

THEORY (Credits 3; Hours 45)

UNIT I: Research: Paradigms, approaches and process

10 Hours

This unit introduces the concept, types, designs, paradigms, approaches and process of research. The unit also highlights the concerns of reliability and validity in research.

- Definition and objectives of research
- Importance, scope and types of research
- Research design: Concept and significance

- Paradigms of research
- Research approaches: Quantitative, qualitative and mixed methods
- Reliability and validity in research methods and concerns
- The Research Cycle

UNIT II: Principles and process of quantitative research approach

12 Hours

This unit focuses on various research designs, methods of sampling and data collection techniques followed in quantitative research approach. It also emphasizes on the levels of measurement of data and errors in quantitative research

- Components, types and applications of research designs in quantitative research approach: Observational and experimental designs
- Concept of sampling, sampling methods Probability and non-probability sampling in quantitative research
- Methods of data collection in quantitative research
- Measurement in research, scales and errors in measurement
- Errors in inference bias and confounding

UNIT III: Principles and process of qualitative research approach

14 Hours

This unit introduces students to qualitative research methodologies, exploring their philosophical foundations, data collection methods, analysis techniques and ethical considerations.

- Philosophical underpinnings: Constructivism, interpretivism and critical theory
- Approaches to qualitative research: Ethnography, phenomenology, case study research, grounded theory and action research.
- Sampling in qualitative research
- Data collection methods and techniques: Observation, interview, focus group discussion and case study.
- Data management and analysis in qualitative research: Thematic, narrative and discourse analysis

UNIT IV: Research and publication ethics

9 Hours

This unit addresses issues related to research integrity, responsibilities of researchers and ethical standards for publishing academic work.

- Definition and importance of research ethics: Ethical concerns for research in the field of Home Science
- Ethical principles in Research planning and execution: Informed consent, anonymity, confidentiality and privacy, voluntary participation, safety and dignity of participants, transparency
- Data integrity and ethical data collection: use of appropriate methodology, ensuring accuracy and validity, managing sensitive data, avoiding misuse of information

- Bias and conflict of interest in research
- Forms of research misconduct: Fabrication and falsification of data and plagiarism
- Ethical issues in research publication: Selective reporting, misrepresentation of data, salami slicing and predatory publications

PRACTICAL (Credits 1; Hours 30)

- 1. Critical review of a published original research article in any area of Home Science.
 - Identification and documentation of strengths and weaknesses of various components of the selected research article
- 2. Sampling in Research
 - Probability and non-probability sampling techniques
- 3. Formulation of a data collection tool
- 4. Referencing and Citation in Scientific Writing
 - Importance and different styles of referencing
 - Concept of in-text and post-text referencing
 - Digital tools for referencing
- 5. Plagiarism in research
 - Concept and types of Plagiarism
 - Technical writing using quotations, paraphrasing and summarizing
 - Plagiarism detection software
- 6. Formulation of a research proposal
 - Identification of a research problem/thrust area in any specialization of Home Science
 - Literature review related to the identified research problem
 - Proposal formulation giving timeline for conducting the research study

Essential Readings

- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research* (4th ed.). Cengage Learning.
- Kothari, C. R., & Garg, G. (2023). *Research Methodology: Methods and Techniques*. New Age International Pvt Ltd, New Delhi.
- Kumar, R. (2019). *Research Methodology: A Step-by-Step Guide for Beginners*. 5th Ed. Sage Publications, New Delhi.
- UGC (2021) *Academic Integrity and Research Quality*. New Delhi: UGC, Retrieved from https://www.ugc.ac.in/e-book/Academic%20and%20Research%20Book WEB.pdf

Suggested Readings

- Aggarwal, J. & Sabharwal, V. (2025). Essentials of Research Methodology- A Practical Manual. Elite Publishing House, New Delhi.
- Bernard, H. R. (2000). Social research methods: Qualitative and quantitative approaches. Thousand Oaks, CA.: Sage.
- Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). SAGE Publications.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). SAGE Publications.
- Silverman, D. (2020). *Qualitative research* (5th ed.). SAGE Publications.

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DISCIPLINE SPECIFIC ELECTIVE COURSE

DSE DCE 202: CORPORATE SOCIAL RESPONSIBILITY AND RESOURCE MOBILIZATION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Credits & Code		Credi	t Distributi Course	on of the	Pre- requisite of the Course	Eligibility Criteria
Coue		Lecture	Tutorial	Practical	(if any)	
DSE DCE 202: Corporate Social Responsibility and Resource Mobilization	4	2	0	2	Should have awareness about basic concept of corporate social responsibilit y and resource mobilization	As per admission

Learning Objectives

- To understand the theoretical foundations and global frameworks of Corporate Social Responsibility (CSR) and resource mobilisation.
- To analyze CSR policies and practices from an international and Indian perspective.
- To develop strategic approaches for effective resource mobilisation in CSR initiatives.
- To enhance skills in designing, implementing, and evaluating CSR projects with a focus on sustainability and impact.

Learning Outcomes

The students would be able to:

- Critically assess the role of CSR in sustainable development and corporate governance.
- Gain insights into resource mobilisation strategies for CSR, including fundraising, partnerships, and financial sustainability.
- Design and evaluate CSR programs considering both global and local contexts.
- Acquire practical knowledge to engage with stakeholders and manage CSR initiatives effectively.

THEORY (Credits 2; Hours 30)

UNIT I: Foundations of CSR

7 Hours

This unit provides an overview of CSR, its historical evolution, key global and Indian regulatory frameworks.

- Definition, Evolution, and Theories of CSR
- International CSR Frameworks (UNGC, SDGs, ESG Reporting)
- CSR in India: Legal Framework (Companies Act, 2013, Section 135)
- Ethical and Strategic Dimensions of CSR

UNIT II: CSR: Strategies and Implementation

7 Hours

This unit explores approaches to implementing CSR programs, including stakeholder engagement, impact assessment, and best practices from global and Indian organizations.

- CSR Strategy Development and Planning
- Stakeholder Engagement and Partnerships
- Measuring CSR Impact: Tools and Metrics
- Case Studies: Successful CSR Initiatives (Global and Indian Perspectives)

UNIT III: CSR: Linkages & Networks

6 Hours

This unit delves on the roles of various organizations and the relevance of partnerships and linkages in CSR

- Role of NGOs and Public-Private Partnerships in CSR
- UN Global Compact and Its Principles
- Human Rights Due Diligence in CSR

UNIT IV: Resource Mobilisation for CSR Initiatives

10 Hours

This unit focuses on financial and non-financial resource mobilisation strategies for CSR, including corporate philanthropy, impact investing, and social enterprises.

- Fundamentals of Resource Mobilisation: Sources, Challenges, and Strategies
- Sources, Challenges, and Strategies
- Legal and Ethical Considerations in Resource Mobilisation
- Fundraising Strategies for CSR Programs
- Corporate Philanthropy and CSR Grants
- Social Enterprises and Impact Investing
- Role of Technology in CSR Fundraising

PRACTICAL

(Credits 2; 60 Hours)

- Identifying Social Issues for CSR Projects
- Budgeting and Financial Planning

- Project Implementation and Risk Management
- CSR Project: Monitoring and Evaluation
- CSR Project: Report Writing
- Engaging with Communities and Beneficiaries
- Writing CSR Grant Proposals
- Corporate Partnerships and Sponsorships
- Crowdfunding
- Digital Fundraising for CSR
- CSR Communication and Branding Evaluating Resource Mobilisation Success

Essential Readings

- Carroll, A. B., & Buchholtz, A. K. (2014). *Business & Society: Ethics, Sustainability & Stakeholder Management*(9th ed.). Cengage Learning.
- Chatterji, M. (2014). *Corporate Social Responsibility*. New Delhi : Oxford University Press.
- Kotler, P., & Lee, N. (2005). Corporate Social Responsibility: Doing the Most Good for Your Company and Your Cause. Wiley.
- Narang R.K. (2009). *Corporate Social Responsibility-Replicable Models on Sustainable Development*. New Delhi: The Energy & Resources Institute.

Suggested Readings

- Blowfield, M., & Murray, A. (2019). *Corporate Responsibility*. Oxford University Press.
- Sachs, J. D. (2015). *The Age of Sustainable Development*. Columbia University Press.
- Baxi, C. V., & Prasad, A. (2019). *Corporate Social Responsibility: Concepts and Cases The Indian Experience*. Springer.
- Ghosh, S. (2020). Sustainable Development and CSR in India: Strategies and Perspectives. Palgrave Macmillan.
- Mandal, B.N (2012). *Corporate Social Responsibility in India*. Global Vision Publishing House: Delhi.
- Narwal, R. (2018). CSR in India: Cases and Developments. Springer.
- Rasche, A; Morsing, M; Moon, J. (2017). *Corporate Social Responsibility: Strategy, Communication, Governance*. UK: Cambridge University Press.
- Raman, R. (2016). Corporate Social Responsibility: Contemporary Issues in India. Springer.

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DISCIPLINE SPECIFIC CORE COURSE31: DSC DCE 203: ICTS AND COMMUNITY MEDIA IN DEVELOPMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits Cr	Credi	it Distribution of the Course		Pre-requisite of the Course	Eligibility Criteria
Code		Lecture	Tutorial	Practical	(if any)	
DSC DCE 203: ICTs and Community Media in Development	4	2	0	2	Should have awareness about the concept of ICT and how it promotes development	As per admission

Learning Objectives

- To enhance the conceptual understanding of Information and Communication Technology (ICT) and its role in promoting development.
- To expose the students to the concept of Networked societies through theories and perspectives
- To understand the various forms and potential of various community media.
- To familiarise the students with the convergence between ICT-based new media and community media for development.

Learning Outcomes

Student will be able to:

- Enhanced their understanding of ICTs and community media, relate the impact of digitalization and the challenges associated with them
- Appraise the concept of Networked societies through theories and perspectives
- Recognise the forms and potential of various community media.
- Assess the convergence between ICTs and community media for development.

THEORY (Credits 2; Hours 30)

UNIT I: ICTs: Concept, evolution & scope

8 Hours

This unit explores the historical and contemporary role of ICTs in global development. It examines digitalization, the political economy of communication, digital disparities, and key theoretical perspectives.

- The Second Communication Revolution, Digitalization, Cultural Globalization, and ICTs
- Political Economy of Communication Revolution: Markets, Hierarchies, and Networks; the New Economy.
- Law & Policy: Surveillance, Rights, and Privacy.
- Reach, Access, and Skills in ICTs.
- Digital Disparities: Global and National Digital Divide; Gender and Regional Differences.
- Theoretical Perspectives: Technology as Amplifier, Transfer and Diffusion of Technology, Embeddedness of Technology, Progressive/Disruptive Transformation.

UNIT II: ICTs & Networks in Development

10 Hours

This unit introduces the concept of networked societies, their evolution, technological foundations, and impact on social structures, digital culture, and communication patterns.

- Evolution and Classification of Networks; Mass to Network Society.
- Technology and Networked Society: Telecom Network, Data Communication Network, Mass Communication Network, Integrated Network, Multimedia and Broadband Network.
- Characteristics of Networked Societies.
- Social Structure, Space, and Time: Communities and Social Relations.
- Theories and Perspectives on Networked Societies.
- Digital Culture: Human Personality and New Media; Perception, Cognition, and Learning in New Media; Quality and Quantity of New Media Content.

UNIT III: ICTs and Community Media:

6 Hours

This unit focuses on how ICTs and community media intersect to foster development, exploring participatory culture, social change, and digital tools for communication.

- ICT-enabled Community Media
- ICT & Community Media for Social Change.
- ICT Tools for Development: Radio, Television, Print Media, New Media, and Mobile Telephony.

UNIT IV: ICTs: Convergence for Development

6 Hours

This unit focuses on how ICTs converge with journalism, technology and social networks to bring about change.

- Technology and Culture: Community and Identity; Participatory Culture and ICT; Community Informatics.
- Computer-Mediated Communication and Development: Types, Importance, and Relevance.
- Social Networking Sites, Multimedia Platforms, Convergence, and Interactivity.
- Scope, Nature, and Types of Convergent Journalism for Development

PRACTICAL (Credits 2; Hours 60)

Practical assignments will be around the below concepts:

- ICTs- Definition, evolution, classification, reach, access and skills in ICTs
- Disparities and Divides: Digital Divide, Concept, dimensions (Global and Indian Scenario), Gender and regional difference
- Perspectives of ICTs: Technology as Amplifier
- Transfer and Diffusion of Technology
- Embeddedness of Technology: Progressive/Disruptive Transformation
- Networks: evolution and classification, level of networks, Mass to network society
- Technology and networked society: Telecom Network, Data Communication Network, Mass Communication Network, Integrated Network, Multimedia and broadband network.
- Digital Culture: Human personality and new media, Perception, cognition and learning with new media, Quality and Quantity of New Media Content
- Internet Virtual Communities with special focus on blogging and microblogging.
- Social Networking Site; Convergent media, Multimedia platforms, convergence and Interactivity
- Poverty Porn and ICTs
- Developing ICT enabled media.
- Traditional media and performing arts as community media
- Alternative Print media: Content Analysis & Appraisal
- Alternative Television with special focus on PUBLIC Access Television : Content Analysis & Appraisal
- Alternative Radio, Community Radio: Content Analysis & Appraisal
- Content Development of Community Media with respect to :
 - Communication Principles
 - Socio-economic context
 - Message design
 - Channel Selection
 - Audience targeting and segmentation o Developing Feedback mechanism

Essential Readings

- Hassan, R. (2004). *Media, Politics and the Network Society*. Open University Press.
- Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide*. New York University Press.
- Preston, P. (2001). *Reshaping Communication: Technology, Information and Social Change*. Sage Publications. https://doi.org/10.4135/9781446222164
- Warschauer, M. (2004). *Technology and Social Inclusion: Rethinking the Digital Divide*. MIT Press.

Suggested Readings

- Hassan, R. & Thomas, J. (2006). *The New Media Theory*. Open University Press.
- Hassan, R. (2004). *Media, Politics and the Network Society*. Open University Press.
- Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide*. New York, London: New York University Press.
- Marshall, P. D. (2004). New Media Cultures, Information and Communication Technology for Development. Hodder Stoughton Educational.
- Pannu, P. & Tomar, Y. (2012). *Communication, Technology for Development*. New Delhi: IK International Publishing House. ISBN: 9789380578903.
- 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).

SKILL BASED COURSES

SKILL BASED COURSE

SBC DCE 01: Media for Change: Print

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Pre- requisite of the Course	Eligibility Criteria
Couc		Lecture	Tutorial	Practical	(if any)	
SBC DCE 01: Media for Change: Print	2	0	0	2	Should have awareness about print media and its role in catalysing change	As per admission

Learning Objectives

- To develop practical skills in designing and executing print media materials for social change
- To understand the fundamentals of layout, typography, and content structuring in print media.
- To gain hands-on experience in print media content creation, including brochures, reports, and e-newsletters.
- To analyze and understand how different organizations use print media for various communication purposes.

Learning Outcomes

The students would be able to:

- Conceptualize and execute print media projects for social change.
- Apply principles of visual storytelling and layout design.
- Create engaging and persuasive print media materials.
- Develop a portfolio of work demonstrating proficiency in e-newsletter design and media analysis.
- Understand and evaluate print media strategies used by different organizations.

PRACTICAL (Credits 2; Hours 60)

Study of Print media strategies, advocacy and key elements of a newsletter will be made understood to the students by the following activities:

- Selection of two organizations with distinct print media strategies
- Collection and categorization of sample print materials (magazines, brochures, reports)
- 1000-word comparative study analyzing design, messaging, and audience targeting
- Presentation of findings (PowerPoint or infographic format)
- Research on campaign messaging and audience
- Draft content for the brochure
- Initial layout design (wireframe/sketch)
- Final designed brochure (digital PDF format)
- Newsletter: Selection of theme and audience segmentation strategy
- Newsletter: Three short articles (each 200-300 words)
- Newsletter: Multimedia integration (images, videos, hyperlinks)
- Newsletter: Final e-newsletter in an interactive format (PDF or email-friendly HTML)

Suggested Software for E-Newsletter and Print Design:

- Mailchimp
- Canva
- Adobe InDesign
- Microsoft Sway
- Lucidpress

Essential Readings

- Lester, P. M. (2018). Visual Communication: Images with Messages. Cengage Learning.
- Wheeler, A. (2021). *Designing Brand Identity*. Wiley.
- Lupton, E. (2014). *Thinking with Type: A Critical Guide for Designers, Writers, Editors, & Students.* Princeton Architectural Press.

Suggested Readings

- Tufte, E. R. (2006). Beautiful Evidence. Graphics Press.
- Berger, A. A. (2012). *Media Analysis Techniques*. SAGE Publications.
- Holmes, T., & Nice, L. (2012). *Magazine Editing: How to Develop and Manage a Successful Publication*. Routledge.

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

SKILL BASED COURSE

SBC DCE 02: CORPORATE COMMUNICATION AND BRAND MANAGEMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Pre- requisite of the Course	Eligibility Criteria
Code		Lecture	Tutorial	Practical	(if any)	
SBC DCE 02: Corporate Communication & Brand Management	2	0	0	2	Should be aware about concept of corporate communicatio n and public relations	As per admission

Learning Objectives

- To understand the concept and significance of corporate communication
- To develop an understanding of how organizations communicate with internal and external stakeholders.
- To develop skills for creating effective corporate communication strategies
- To gain practical insights into corporate branding, reputation management and crisis communication

Learning Outcomes

The students will be able to:

- Demonstrate a clear understanding of corporate communication concepts and their significance in business.
- Develop and implement corporate communication strategies
- Manage and analyse brand equity
- Handle PR and Crisis Communication

PRACTICAL (Credits 2, 60 Hours)

The concept and scope of corporate communication, public relations and brand management will be made understood to the students by the discussions/debates/forums on and activities/assignments planned around the topics given below:

- Concept and Scope of Corporate Communication
- Importance of Corporate Communication in Organizations
- Corporate Identity, Image, perception and Reputation
- Tools of Corporate Communication (Newsletters, Press Releases, Annual Reports)
- Internal vs. External Communication
- Case studies
- Create template of internal and external newsletter (Digital and Print) for an organisation
- Definition and Scope of Public Relations
- PR Strategies, Tools and Campaign Planning
- Media Relations and Press Conferences
- Crisis Communication and Reputation Management
- Case Studies on Effective PR Campaigns
- Design PR Campaign for an event
- Drafting Press Releases
- Design Brochures
- Design newsletters
- Mock Press Conference
- Managing a crisis communication of a brand or a personality facing a backlash.
- Understanding Brand and Brand Equity
- Importance of Brand Positioning and Differentiation
- Building a Brand Personality
- Case Studies
- Creating a Brand, Brand Identity Kit and Presentation
- Presentation on a Brand's Journey
- Integrated Marketing Communication
- Brand Building through social media
- Content Creation and Brand Storytelling
- Case Studies
- Creation of short video on brand storytelling for social media: story board, content creation and video making

Essential Readings

- Argenti, P. A. (2017). *Corporate communication* (7th ed.). McGraw-Hill Education.
- Bivins, T. H. (2017). *Public relations writing: The essentials of style and format* (8th ed.). McGraw-Hill Education.
- Fearn-Banks, K. (2017). *Crisis communications: A casebook approach* (5th ed.). Routledge.
- Jethwaney, J. (2024). *Corporate Communication Concepts and Practice (1st ed.)*. *Routledge.*

Suggested Readings

- Broom, G. M., & Sha, B.-L. (2013). *Cutlip & Center's Effective Public Relations*. Pearson.
- Cornelissen, J. (2020). *Corporate Communication: A Guide to Theory and Practice*. SAGE Publications.
- Kotler, P., & Keller, K. L. (2019). *Marketing management* (15th ed.). Pearson.
- Newsom, D., Turk, J., & Kruckeberg, D. (2012). *This is PR: The Realities of Public Relations*. Wadsworth.
- Wilcox, D. L., & Cameron, G. T. (2014). *Public Relations: Strategies and Tactics*. Pearson.

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

SKILL BASED COURSE SBC DCE 04: MEDIA FOR CHANGE: AUDIO

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Pre- requisite of the Course	Eligibility Criteria
Couc		Lecture	Tutorial	Practical	(if any)	Criteria
SBC DCE 04: Media for Change: Audio	2	0	0	2	Should have basic awareness about audio aids and media	As per admission

Learning Objectives

- To develop practical skills in creating and producing audio content for social change.
- To understand the role of sound, voice, and music in communicating messages effectively in audio media.
- To gain hands-on experience in producing podcasts, radio segments, and audio for social campaigns.
- To critically analyse how audio can be used by different organizations to drive social change.

Learning Outcomes

The students would be able to:

- Conceptualize and produce audio content for social change initiatives.
- Apply audio production techniques, including scripting, recording, and editing.
- Create engaging and impactful podcasts or radio segments.
- Develop a portfolio demonstrating proficiency in audio content creation and analysis.
- Evaluate how audio media strategies are employed by different organizations for social advocacy.

PRACTICAL (Credits 2; Hours 60)

Elements of soundscape design, audio collection samples, design of radio magazine will be taught through the following activities/assignments

- Research the chosen issue (e.g., climate change, urbanization, migration)
- Select relevant sound elements (natural sounds, human voices, background noise, etc.)

- Design and mix a 2-3 minutes soundscape that conveys the issue's essence and impact
- Submit the final soundscape (in MP3 or WAV format) along with a brief 500- word explanation of your choices for sounds and their role in delivering the message.
- Choose a Development Issue: Select a specific development issue such as poverty, education, healthcare, gender equality, or climate change.
- Audio Collection Formats: Interviews, Ambient Sounds, Field Recordings, Narrative Voiceover
- Select a theme (e.g., social issues, arts and culture, health) for the magazine
- Plan and script the segments (including interviews, narration, sound effects, and music)
- Record and edit the segments to produce radio magazine episode
- Suggested Software for Audio Production: Audacity, Nueando, Auphonic, LMMS (Linux Multimedia Studio)

Essential Readings

- Pannu, P., & Tomar, Y. A. (201). Communication technology for development. I. K. International Pvt Ltd.
- Yates, S. J., & Little, J. (2014). *Radio and Audio Media: Theoretical Perspectives and Practical Applications*. Routledge.
- Thurlow, C., & Jaworski, A. (2010). *The Discourse of the Media*. Palgrave Macmillan.

Suggested Readings

- Tufte, E. R. (2006). Beautiful Evidence. Graphics Press.
- Berger, A. A. (2012). *Media Analysis Techniques*. SAGE Publications.
- Holmes, T., & Nice, L. (2012). Magazine Editing: How to Develop and Manage a Successful Publication. Routledge.

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GENERAL ELECTIVE

GE 3: ORGANIZATIONAL COMMUNICATION: TOOLS & TECHNIQUES

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Pre- requisite of the	Eligibility Criteria
		Lecture	Tutorial	Practical	Course (if any)	Citteria
ORGANIZATI ONAL COMMUNICA TION: TOOLS & TECHNIQUES	4	3	1	0	Should be aware of key concepts of communicati on and organization al communicati on	As per admission

Learning Objectives

- To understand the fundamentals and dynamics of organizational communication
- To recognise the communication skills required for a professional life at the work place
- To develop key skills required for effective communication at workplace

Learning Outcomes

The students would be able to:

- Appreciate the fundamentals and dynamics of organizational communication
- Develop and hone key skills required for effective communication at workplace such a presentations, public relations, interpersonal skills etc
- Equip themselves better for organizational communication and foster professional relationships at workplace

THEORY (Credits 3; Hours 45)

UNIT I: Organizational Communication: Fundamentals & Dynamics 15 Hours

This unit delves on the fundamentals of organizational communication and the changing dynamics at workplace. It focuses on the principles, methods, types, tools and techniques important for workplace communication.

- Workplace communication- Principles and Methods
- Organizational Communication-types, tools, techniques and conflict resolution
- Networks of communication

- Significance of technical communication
- Perception, Persuasion as communication skills
- Barriers to effective communication- Professional Relationships And Group Communication, conflict management

UNIT II: Communication Skills at Workplace

8 hours

This unit covers all the essential communication skills required by a professional at workplace touching upon the 4 quadrants of communication: Reading, Writing, Listening and Speaking.

- Reading Skills: Previewing techniques; Skimming; Scanning; Understanding the gist of an argument; Identifying the topic sentence; Inferring lexical and contextual meaning; recognizing coherence and sequencing of sentences; Improving comprehension skills.
- Listening skills: Process, Types of listening, models of listening
- Writing Skills: Sentence formation; Use of appropriate diction; Paragraph and Essay Writing; Coherence and Cohesion.
- Speaking skills: clear and concise communication, active listening, empathy, non-verbal communication and the ability to adapt to different audiences and situations

UNIT III: Professionalism at Workplace

10 hours

This unit covers all the essentials related to harnessing professionalism at workplace.

- Importance of respect, communication, punctuality accountability, integrity, etiquettes and a positive attitude at workplace
- Technical Writing: Differences between technical and literary style, Elements of style; Common Errors.
- Report Writing: Basics of Report Writing; Structure of a report; Types of reports.
- Technology-based Communication: Netiquettes: effective e-mail messages; power-point presentation; enhancing editing skills using computer software
- Soft skills, Teamwork, meetings
- Speaking in Public, Business Presentation skills

UNIT IV: Organizational Communication: Public Relations & Brand Management 12 Hours

This unit explores the importance of public relations and brand management in Organizational Communication. It also elaborates upon the various tools related to public relations.

- Public Relations- concept, relevance and significance
- PR Tools- interpersonal, mass media and selective media
- PR & Media Relations
- Branding and Image Formation of Organizations
- Social Media Management of Organization's brand

TUTORIAL (Credits 1; Hours 15)

- Business Proposal Writing
- Making Effective Presentations
- Effective Public Speaking
- Problem Solving and Conflict Resolution Group Activities
- Group Discussion
- Assignments on Technical Writing
- PR Kit development
- Framing a brand statement and pitch for project

Essential Readings

- Bovee, L., Thill, J, and Schatzman, B.(2004). *Business Communication Today*. Delhi: Pearson Education.
- Heath, R. L., & Coombs, W. T. (Eds.). (2021). *The SAGE handbook of public relations* (2nd ed.). SAGE.
- Oliver, S. (2004). *Handbook of corporate communication and public relations: pure and applied*. UK: Routledge

Suggested Readings

- Allan, P & Pease, A. (2005). *The Definitive Book of Body Language*. New Delhi: Manjul Publishing House.
- Conrad, C., & Poole, M. S. (2012). *Strategic organizational communication: In a global economy* (7th ed.). Wiley.
- Kelley, T., & Kelley, D. (2013). *Creative confidence: Unleashing the creative potential within us all.* Crown Business.
- Kotter, J. P. (2012). *Leading change*. Harvard Business Review Press.
- Modaff, D. P., Butler, J. A., & DeWine, S. (2016). *Organizational communication: Foundations, challenges, and misunderstandings* (3rd ed.). Pearson.
- Seeger, M. W., Sellnow, T. L.; Ulmer, R. R. (2003). *Communication and organizational crisis*. CT: Greenwood Publishing Group
- Smith, R. D. (2021). Strategic planning for public relations (6th ed.). Routledge.

DEPARTMENT OF FOOD AND NUTRITION 2-Year MSc Curriculum under NEP

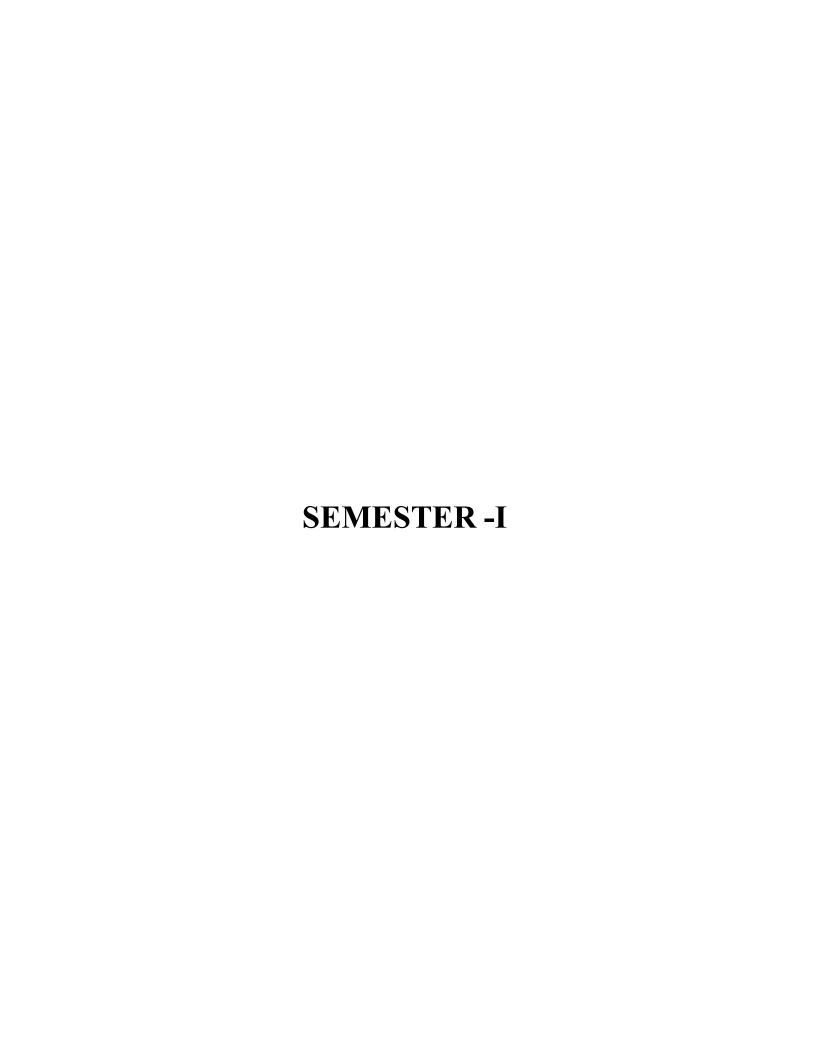
COURSEWORK TRACK

DS	C			DSF	E				SEC			Dissertation/
Paper Title (4 Credits each)		Credi stribut	-	Paper Title (4 Credits each)		Credit tributio	on	Paper Title (2 Credits each)	Credi	it Distrib	ution	Academic Project/ Entrepreneurship
	Th	Tu	P		Th	Tu	P		Th	Tu	P	
					SEM	ESTER	I					
Pick A	All 3			Pick 2* or Pick 1	plus o	ne GE		Pick	any on	e		
DSC FN -101 Advances in Human Nutrition	3	0	1	DSE FN - 101 Public Health Aspects of Malnutrition	3	0	1	SEC FN-101 Nutrition Screening and Assessment	0	0	2	NIL
DSC FN -102 Applied Clinical Physiology	3	0	1	DSE FN -102 Preventive and Therapeutic Nutrition	2	0	2	SEC FN 102 Scientific Writing	0	0	2	
DSC FN -103 Advanced Food Science	2	0	2	DSE FN -103 Indian Knowledge Systems and Nutrition	2	0	2					
	•				SEMI	ESTER	II					
Pick A	Pick All 3			Pick 2* or Pick 1	plus o	ne GE		Pick any one				
DSC FN- 204	3	0	1	DSE FN - 201 Advanced Research Methods	3	0	1	SEC FN-201	0	0	2	NIL 0

Clinical Biochemistry: Metabolic and Clinical Aspect								Nutrition and Health Data Visualisation				
DSC FN - 205 Advanced Clinical Nutrition I	2	0	2	DSE FN - 202 Food Microbiology and Food Safety	2	0	2	SEC FN 202 Intellectual Property Rights	1	0	1	
DSC FN-206 Approaches, Policies and Programmes in Public Health Nutrition	3	0	1	DSE FN - 203 Quality management in Food Industry	2	0	2				•	
			_ I		SEME	STER	Ш					
Pick A	All 2			Pick 3* or pick	2 plus	1 GE		Pick				
DSC FN- 307 Analytical Techniques and instrumentation	2	0	2	DSE FN- 301 Statistics and Data Management	3	0	1	SEC FN 301 Scientific Writing	0	0	2	
DSC FN - 308 Nutritional Epidemiology	3	0	1	DSE FN– 302 Advanced Clinical Nutrition II	3	0	1	SEC FN 302 Intellectual Property Rights	1	0	1	
	I	1		DSE FN- 303 Institutional Food Service management	2	0	2	SEC FN 303 Internship	0	0	2	
				DSE FN-304	3	0	1		1	ı	l	

				Social and Cultural Aspects in Public Health Nutrition					
				DSE FN-305	2	0	2		
				Improving Maternal, Infant, Young Child and Adolescent Nutrition					
				DSE FN-306 Food Processing and Preservation Technology	3	0	1		
				DSE FN-307 Unit Operations in Food Processing	2	0	2		
				DSE 308 Exercise, Nutrition and Metabolism	3	0	1		
				DSE 309 Sport-Specific Nutrition	2	0	2		
					SEME	STER :	IV		
Pick A	All 2			Pick 3* or pick	2 plus 1	I GE		Pick any one	
DSC FN- 409 Food Product Development and Quality Evaluation	2	0	2	DSE FN-401 Precision Nutrition	3	0	1	SEC FN 401 Intellectual Property Rights	

DSC FN- 410 Nutrition Communication and Health Promotion	3	0	1	DSE FN-402 Challenges in Clinical Nutrition	2	0	2	SEC FN 402 Internship	
				DSE-FN-403 Nutritional Care of the Elderly	3	0	1		
				DSE FN-404 Programme Planning in Public Health Nutrition	2	0	2		
				DSE FN-405 Food Processing	3	0	1		
				DSE FN-406 Technologies in Food Processing	2	0	2		
				DSE FN-407 Clinical Sports Nutrition	2	0	2		
				DSE FN-408 Doping, supplements and Ergogenic Aids	3	0	1		



DISCIPLINE SPECIFIC CORE COURSE DSC FN -101 ADVANCES IN HUMAN NUTRITION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credi	t Distributi Course	on of the	Pre-requisite of the Course	
Code		Lecture	Tutorial	Practical	(if any)	
DSC FN -101	4	3	0	1	Studied	As per admission
Advances in Human Nutrition					Basics of Human Nutrition at undergradu ate level	

Learning Objectives

- To understand the biological role of and methods of assessing requirement of different nutrients.
- To understand how these requirements change in special conditions.
- To appreciate the role of different nutrients in optimal physical and mental growth and development.
- To understand how optimal nutrition is important for immunity.

Learning Outcomes

The students would be able to:

- Explain the importance of every nutrient and sensitive methods for assessment of nutrient needs.
- Describe how requirements for nutrients change in special conditions.
- Describe critical periods in growth and development and impact of malnutrition.
- Appreciate implications of poor dietary and lifestyle practices.
- Apply the knowledge of nutrition immunity interactions and their operational implications.

THEORY (Credits 3; Hours 45)

UNIT I: Human Nutrient Requirements

20 Hours

This unit lays thrust on the functions of different macro- and micro-nutrients, sensitive methods which are used to assess their requirements as well as factors which increase or decrease the requirements.

• Historical perspective of nutrient requirements, terms used

- Biological role, sensitive methods for assessment of requirements of specific nutrients and factors affecting the requirements
 - o Energy
 - o Carbohydrates and dietary fibre
 - o Proteins and amino acids
 - o Lipids and fatty acids
 - o Water
 - o Fat- and water-soluble vitamins
 - o Minerals

UNIT II: Nutrition in Special Conditions

8 Hours

This unit highlights how nutrient requirements change under special conditions of climate, high altitude, space missions, natural disasters as well as for sports persons.

- Extreme temperatures low and high
- High altitude
- Space nutrition and space food systems
- Introduction to sports nutrition
- Nutrition during emergencies

UNIT III: Importance of Nutrition in Growth and Development

10 Hours

This unit deals with the effect of malnutrition on growth and development and how changing trends in lifestyle and dietary habits can influence health and nutritional status.

- Determinants of growth and development
- Changes in body composition throughout the life cycle
- Impact of altered nutrition on growth and development
- Maternal malnutrition and pregnancy outcome
- Malnutrition and cognitive development
- Changing trends in life style and dietary patterns in population groups and their implications on nutritional status and disease

UNIT IV: Nutrition and Immunity

7 Hours

This unit deals with how different nutrients play a role in the immune system of our body and how this knowledge can be used to improve health outcomes in diseases.

- Host defense mechanisms and nutrients essential in the development of immune system
- Effect of infections on the nutritional status of an individual
- Nutrient deficiencies and excesses affecting the immuno-competence and susceptibility to infections
- Operational implications

PRACTICAL (Credits 1; Hours 30)

- 1. Measurement of energy expenditure
 - Factorial approach
 - Heart rate monitoring method
 - GPAQ and IPAQ
 - Calorimetry
- 2. Assessment of protein quality
 - Based on amino acid composition
 - Overview of biological methods based on growth and balance studies
- **3.** Fatty acid profile of foods from different food groups
- 4. Soluble and insoluble fiber content of foods from different food groups.
- **5.** Measurement of diversity and quality of diets.
- **6.** Measurement of perceived stress.
- 7. Measurement of eating behaviour.
- **8.** Visit to an institute conducting research in human nutrition.

Essential Readings

- Chadha R., Mathur P. Eds. (2015) Nutrition: A Lifecycle Approach. New Delhi: Orient Blackswan.
- 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.
- NIN-ICMR. (2020) Nutrient Requirements -Estimated Average Requirements and Recommended Dietary Allowances.

Suggested Readings

- Bamji, M.S., Krishnaswamy K. Brahmam G.N.V. Eds. (2019) *Textbook of Human Nutrition*. 4th Edition. New Delhi: Oxford and IBH Publishing Co. Pvt. Ltd.
- Cameron N. (2002). Human Growth and Development. USA: Academic Press, Elsevier Science.
- Chopra S, Singh SN and Mathur P, Nutritional Fuelling for Microgravity Environment of Space Missions, Current Nutrition & Food Science 2023; 19. https://dx.doi.org/10.2174/1573401319666230503162143
- Singh, Som Nath. (2021). Nutritional Requirements for Special Conditions. eGyanKosh, IGNOU. https://egyankosh.ac.in/handle/123456789/33312
- WHO. (2000). The management of nutrition in major emergencies. Geneva: World Health Organisation. https://www.who.int/publications/i/item/9241545208

DISCIPLINE SPECIFIC CORE COURSE APPLIED CLINICAL PHYSIOLOGY

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &	Credits	Credi	t Distributi Course	on of the	Pre- requisite of	Eligibility Criteria
Code		Lecture	Tutorial	Practical	the Course (if any)	
DSE-FN-102	4	3	0	1	Studied	As per admission
Applied Clinical Physiology					Human Physiology	

Learning Objectives

- To Understand and deal with all aspects of general and systemic physiology.
- To Conduct relevant clinical/experimental research as would have significant bearing on human health and patient care.
- To understand the normal functioning of various organ systems of the body and their interactions.
- To be able to comprehend the pathophysiology of commonly occurring diseases.

Learning Outcomes

The students would be able to:

- Understand the current state of knowledge about the functional organization of the human body.
- Develop insight of normal functioning of all the organ systems of the body and their interactions.
- Comprehend the pathophysiology of commonly occurring diseases.
- Correlate physiology with various disorders and their pathogenesis.

THEORY

(Credits 3; Hours 45)

UNIT I: Circulatory & Cardio-Thoracic Physiology

17 Hours

This unit lays thrust on understanding about blood, its components and associated abnormalities, it also highlights the functioning of the cardiovascular and respiratory system and the pathophysiology of its most common disorders.

- Blood and Plasma Protein -Composition and Function
- Blood formation and factors controlling Erythropoiesis.
- Destruction and fate of RBCs
- Microcirculation and lymphatic system
- Coagulation Cascade, Anticoagulants
- Pathophysiology of Anaemia, Polycythemia, Leukemia, Leucopenia.
- Principles of Transfusion Medicine
- Immunity: (Innate, Acquired, Humoral and Cell Mediated Immunity)
- Allergy, hypersensitivity and immunodeficiency.
- Properties of cardiac muscle
- Generation and conduction of cardiac impulse
- Cardiac cycle, Cardiac output, Heart sounds
- Heart rate & regulation
- Blood pressure, Hypertension
- Coronary Artery Disease
- Heart Failure and Circulatory Shock
- Transport and exchange of gases
- Lung volume & Capacities and COPD
- Exercise Physiology
- Pleural fluid and Lung edema
- Hypoxia
- Oxygen therapy and toxicity
- High Altitude and Deep-Sea diving and hyperbaric conditions

This unit highlights the functioning of the Gastrointestinal Tract and the pathophysiology of its most common disorders.

- Functions of Stomach, Liver, Pancreas and Gall Bladder.
- Composition, function and regulation of:
 - ➤ Salivary juice
 - ➤ Gastric juice
 - > Pancreatic juice
 - ➤ Bile juice
 - > Intestinal juice
 - ➤ GI hormones
- Pathophysiological overview of some common diseases in relation to Gastrointestinal Tract (Diarrheal diseases, Peptic ulcer/GERD, Cholelithiasis, Portal Hypertension, Fatty liver and Liver Cirrhosis)
- Liver function tests

UNIT III Excretory Physiology

6 Hours

This unit highlights the functioning of the excretory system and the pathophysiology of most its common disorders.

- Body fluid compartments
- Regulation of extra cellular sodium and osmolarity
- Urine formation
- Renal function tests
- Acid Base balance
- Pathophysiology of Renal Stones, Urinary Tract Infection, Glomerulonephritis
- Diuretics

UNIT IV Neuro-Endocrine and Reproductive Physiology

14 Hours

This unit gives an overview of the Nervous, Endocrine and Reproductive system and the study of common disorders.

- Overview of organization of nervous system
- Pathophysiology of Pain
- Primary taste sensations
- Perception of taste
- Effects of Pituitary, Thyroid, Parathyroid, Adrenal and Pancreatic hormones
- Physiology of Growth
- Pathophysiology of Diabetes Mellitus, Metabolic Syndrome, Hashimoto's disease, Tetany and Cushing Syndrome
- Physiology of Menstruation and Menopause
- Physiology of Pregnancy, Lactation
- Pathophysiology of PCOD and Infertility

PRACTICAL (Credits 1; Hours 30)

Evaluation/Interpretation of various physiological parameters in health and disease through simulated patient case profiles and case studies.

- 1. Hemogram, Blood Indices, Peripheral Blood smear, and their significance with Anemia and disease conditions.
- 2. Recording of Pulse: common sites and most common methods, Measurement of Blood Pressure using sphygmomanometer and digital apparatus, Interpretation and Significance with Hypertension and Pulse Pressure.
- 3. Use of Pulse Oximeter and its significance and correlation with Covid like Diseases.
- 4. Interpretation of various physiological parameters in health and disease through simulated patient case profiles and case studies; Peptic ulcer/GERD, Cholelithiasis, Portal Hypertension, Fatty liver and Liver Cirrhosis. LFT, understanding the various parameters.
- 5. Dipstick method for Albumin Testing; Urine Examination routine & Microscopic, Urine Culture. KFT and its interpretation.
- 6. Thyroid Profile Report, Pituitary Hormones testing, PCOD profile, Hyperprolactinemia.
- 7. Birth Control Methods.

8. Understanding various Imaging techniques USG, CT-Scan, MRI, DEXA, Colonoscopy, Angiography, Gastroscopy, ERCP.

Essential Readings

- Barrett, K. E., Barman, S. M., & Yuan, J. X. (2019). Ganong's review of medical physiology. 26th
 Ed. McGraw-Hill Education Medical.
- Guyton A.C and Hall J.E (2015) *Textbook of Medical Physiology*. 13th ed. India: Harcourt Asia.
- Tortora G.J and Grabowski S.R (2000) *Principles of Anatomy and Physiology*.9th ed. John Wiley and Sons. Inc.
- West J.B (1996) *Physiological Basis of Medical Practice*. 12th ed. B. I. Williams and Wilkins.
- Marieb E.N (2014) *Human Anatomy and Physiology*. 10th ed. Pearson Education Inc.

Suggested Readings

- Jain A. K (2019) *Human Physiology for BDS*. 6th ed. Publisher: Avichal Publishing Company; ISBN: 9788177394337
- Pal G.K, Pal P and Nanda N (2023) *Comprehensive Textbook of Medical Physiology.* 3rd ed. (2 vols). Publisher: Jaypee Brothers Medical Pub (P) Ltd.; ISBN: 9789356962897.
- Jain A.K (2019) *Manual* of *Practical Physiology for MBBS*. 6th ed. Publisher: Arya Publications, India; ISBN: 9788178558462
- Paul G.K and Pal P (2020) *Textbook of Practical Physiology*. 5th ed. Publisher: Universities Press (India) Limited; ISBN: 9789389211641.

DISCIPLINE SPECIFIC CORE DSC FN -103 ADVANCED FOOD SCIENCE

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Cred	lit Distribut Course		Pre- requisite of the	Eligibility Criteria
		Lecture	Tutorial	Practical	Course (if any)	
DSC FN -103 Advanced Food Science	4	2	0	2	Knowledge of Food Science and Processing	As per admission

Learning Objectives

- To understand the fundamentals of chemistry and reactions in food systems
- To comprehend the properties and functionality of various food constituents
- To gain knowledge of the diverse applications of various food systems and explore their role in forming complex matrices within food systems

Learning Outcomes

The students would be able to:

- Describe the chemical composition and reactions of food constituents.
- Analyze the impact of chemical reactions on food stability, texture, and nutrition.
- Evaluate the role of food additives in preservation and quality enhancement.
- Explain water interactions and their influence on food stability.
- Apply analytical techniques to assess food composition and properties.

THEORY

(Credits 2; Hours 30)

UNIT I: Chemistry of water, lipids, carbohydrates and proteins

09 Hours

This unit focuses on the structural and phase behavior of water and solutes in food systems and the chemistry and interactions of major food components—carbohydrates.

- Water Structure, phase diagram and phase relationships of pure water and solutes, phase transition of water in food. Interaction of water solute and food compounds, water activity, methods for stabilization of food systems by control of water activity, and sorption isotherm.
- Carbohydrates Reactions of carbohydrates and sugars in food systems, applications, and properties. Types of fibers and their constituents, applications. Modified and non-modified starches.

UNIT Ii: Chemistry of carbohydrates and proteins

09 Hours

This unit focuses on the chemistry and interactions of major food components—lipids and proteins.

- **Lipids, fats and oils** Physical properties of fats and oils (hydrolysis, oxidation, hydrogenation, polymerization, interesterification, blending, fractionation).
- Proteins, amino acids, peptides and protein foods- Chemical reactions and enzymatic
 modifications of proteins. Process and applications of texturized proteins, protein isolates,
 concentrates and hydrolysates and recent trends.

UNIT III: Food Additives: Types, applications, mode of action

09 Hours

This unit deals with types, mode of action of food additives and their toxicological analysis.

 Food additives- definitions, classification and functions, applications, regulatory aspects, types, and mode of action.

UNIT IV: Food Additives: toxicological studies

03 Hours

• Studies for the toxicological evaluation of food additives

PRACTICAL (Credits 2; Hours 60)

- 1. Analysis of sugars/proteins in foods
- **2.** Analysis of fats in foods
- 3. Analysis of total ash and crude fiber in foods
- **4.** Estimation of sugar in foods and reducing properties in honey
- 5. Refractive index, melting point, solidification point of fats & oils
- **6.** Determination of peroxide value and acid value in fats & oils
- 7. Estimation of bioactive compounds in foods
- 8. Analysis of benzoic acid in foods
- 9. Analysis of sorbic acid in food
- 10. Assay to analyze the antioxidant activity of food in comparison with synthetic antioxidants

Essential Readings

- Belitz, I. H. D., & Grosch, I. W. (2013). Food chemistry. Springer Science & Business Media.
- Damodaran, S., Parkin, K. L., & Fennema, O. R. (Eds.). (2007). Fennema's food chemistry. CRC press.
- Branen AL, Davidson PM & Salminen S. (2001) Food Additives. 2nd Ed.Marcel Dekker.
 Fellows P J (2002) Food Processing Technology- Principles and Practices, 2nd Edition.
 Woodhead Publishing Ltd.
- Fuller, G.W. (1999) New Food Product Development. From concept to market place. CRC press, New York.
- Peter Murano (2003). Understanding Food Science and Technology (with InfoTrac)
- BIS standards for food products and analysis manual.
- Manuals of methods of analysis of various food products, FSSAI, 2016

Suggested Readings

- Food and Agriculture Organization. (1980) Manual of Food Quality Control. Additive Contaminants Techniques. Rome.
- Mahindru, S N (2000) Food Additives- Characteristics Detection and Estimation. Tata Mc Graw Hill Publishing Co. Ltd.

DISCIPLINE SPECIFIC ELECTIVE COURSE

DSE FN - 101 PUBLIC HEALTH ASPECTS OF MALNUTRITION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title &	Credits	Cred	lit Distribut Course		Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
DSE FN – 101 Public Health Aspects of Malnutrition	4	3	0	1	Basic papers in Nutrition Science and Nutrition across the Lifespan at the UG level	As per admission

Learning Objectives

- To orient with stages of demographic cycle and demographic transition.
- To sensitize the students to the concept of Public Health aspects of malnutrition
- To acquire knowledge about the causes, consequences and preventive strategies for malnutrition in the community.
- To familiarize the students with the impact of malnutrition on the national economy and development.
- To orient with the concept of food and nutrition security.

Learning Outcomes

The students would be able to:

- Discuss population dynamics and economics of malnutrition
- Explain the concept of public health aspects of malnutrition.
- Describe the causes, consequences and preventive strategies for nutritional problems in the community.
- Analyze the impact of malnutrition on the national economy and development.
- Discuss the concept of food and nutrition security.

- Develop nutrition communication material for health promotion and creating awareness for lifestyle related diseases.
- Plan nutritious and healthy recipes for vulnerable sections of population

THEORY

(Credits 3; Hours 45)

Unit I: Population Dynamics

12 Hours

This unit lays thrust on stages of demographic cycle and demographic transition and implication on quality of life

- Stages of Demographic cycle and transition
- Demographic characteristics and trends in India
- Demographic dividend and sustainable development
- World population trends
- Population structure: Implications on quality of life
- Population Policy

Unit II: Public Health Aspects of undernutrition and overnutrition

13 Hours

This unit highlights the public health aspects of both undernutrition and consequences and preventive strategies for malnutrition in the community.

- Public health aspects of undernutrition- Overview
- Demographic, epidemiological and social determinants of Obesity and NCD's: Cardiovascular diseases and Type 2 diabetes, Cancer, Respiratory diseases (COPD) and other emerging issues and ongoing challenges of non-communicable diseases
- Public health strategies for prevention of NCD's: Policies, programmes, taxation and pricing, improving built environment

Unit III: Economics of malnutrition

10 Hours

This unit deals with the dietary transition, food system transformation, health and economics of malnutrition and its impact on productivity and national development.

- Health economics and economic consequences of Malnutrition
- Economic evaluation of malnutrition
- Impact of malnutrition on productivity and national development
- Dietary transition and food system transformation
- Economic effects of double burden of malnutrition

UNIT IV: Food and Nutrition Security

10 Hours

This unit highlights the Food and nutrition security at different levels like national, household and individual level and government initiatives to improve food security.

- Concepts and definitions of food and nutrition security at national, household and individual levels.
- Impact of food production, losses, distribution, access, availability, consumption on food and nutrition security.
- Public Sector programmes for improving food and nutrition security (PDS, TPDS, RPDS, Poshan 2.0)

PRACTICAL

(Credits 1; Hours 30)

- 1. Preparation of communication aids to address problems of lifestyle related diseases and disorders among adults and elderly
- 2. Development of nutritious recipes for adults to manage overweight and obesity.
- **3.** Planning and preparation of dishes for adults/elderly to address conditions of diabetes and hypertension.
- 4. Planning and preparation of a low cost diet for Protein Energy Malnutrition (PEM).
- 5. Planning and preparation of low cost nutritious recipes for Iron Deficiency Anemia (IDA).
- 6. Planning and preparation of low cost nutritious recipes for Vitamin A Deficiency (VAD).

Essential Readings

- Vir, S.C. (2021). Public Health Nutrition in Developing Countries. Volume-II, edition. Woodhead Publishing India Pvt Ltd
- Seth, V. and Singh K. (eds.) (2021) Principles of Medical Nutrition Therapy for Positive Clinical Outcomes, 1st Edition. Elite Publishing House Pvt. Ltd.
- William A, Masters A, Amelia B. Finaret B, Steven A. Block C (2022). Handbook of Agricultural Economics (6th ed). Elsevier. Pvt. Ltd.
- Park, K. (2023). Park's Textbook of Preventive and Social Medicine (27th ed.), Jabalpur, India: Banarasidas Bhanot Publishers.
- Vir, S.C. (2023). Child, Adolescent and Woman Nutrition in India: Public Policies, programmes and Progress. KW Publishers Pvt. Ltd.

Suggested Readings:

- Longvah, T., Ananthan, R., Bhaskarachary, K. and Venkaiah, K. (2017). Indian Food Composition Tables. National Institute of Nutrition, ICMR, Hyderabad.
- Chadha R, Mathur P (2015) *Nutrition A life cycle Approach*, Orient Black Swan Pvt. Ltd, Lady Irwin College
- Dietary Guidelines for Indians (2024) Dietary Guidelines for Indians: A manual., NIN
- IFCT (2017) Indian Food Composition Tables, NIN
- Seth V, Singh K and Mathur P (2018). Diet Planning through the Life Cycle: Part 1 Normal Nutrition. A Practical Manual. 6 th Edn. Elite Publishing House Pvt. Ltd. New Delhi.
- Gibney, M.J., John, M., Arab L. (2013) Public Health Nutrition. The Nutrition Society Textbook Series. Blackwell Publishing Company
- Edelstein S. (2018). Nutrition in Public Health.(4th ed)., Cathay L Esperti.
- Coulston A, Boushey C, Ferruzzi M (2013). Nutrition in the Prevention and treatment of Disease. (3rd ed). Elsevier. Pvt.Ltd.

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE FN -102 PREVENTIVE AND THERAPEUTIC NUTRITION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Pre-requisite of the Course (if any)	•
Couc		Lecture	Tutorial	Practical	(ii uiiy)	
DSE FN -102 Preventive and Therapeutic Nutrition	4	3	0	1	Basic knowledge of lifecycle and therapeutic nutrition	Nil

Learning Objectives

- To understand the concept of nutrition in the prevention of non-communicable diseases (NCD's).
- To acquire knowledge of behavior change communication and dietary counseling principles in managing patients in hospital settings.
- To understand the concept of emerging trends in preventive nutrition.
- To understand the pathophysiology, metabolic changes, clinical symptoms, treatment, and management of some disease conditions.

Learning Outcomes

The students will be able to:

- Describe the principles and guidelines of preventive nutrition.
- Apply the principles of dietary counseling in the management of patients in hospital settings.
- Modify the diet as per the pathophysiology, metabolic changes, and clinical symptoms of disease conditions.

THEORY (Credits 2; Hours 30)

Unit I: Introduction to NCDs

4 Hours

This unit deals with the prevalence, risk factors, and national programs for NCD's.

- Burden of NCDs: Global & Indian Scenario
- Risk factors associated with NCDs and disease outcome

Unit II: Preventive Nutrition Strategies

8 Hours

In this unit, students will be introduced to the concept of preventive nutrition, its key principles, and its guidelines

- Definition and scope of preventive nutrition
- Lifestyle modification in the prevention of NCDs
- Emerging trends in preventive nutrition- personalized nutrition, nutraceuticals, supplements, and plant-based diets in disease prevention
- National program for prevention and control of NCDs

Unit III: MNT for selected disorders

12 Hours

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

- Diseases/disorders
 - Dyslipidemia, Atherosclerosis, Hypertension
 - ➤ Gastrointestinal disorders- Gastroesophageal reflux disease, Peptic ulcer, Irritable bowel syndrome
 - ➤ Liver disease-Infective hepatitis
 - ➤ Polycystic ovarian disease
 - > Thyroid gland disorders

Unit IV: diet counseling for Nutrition Care Process

6 Hours

This unit deals with the concept of diet counseling and its importance in the nutrition care process.

- Basics of communication and counseling
 - ➤ Behavior Change Communication: Objectives, principles, concept and process.
 - ➤ Importance of dietary counseling and use of computers in the nutrition care process

PRACTICAL (Credits 2; Hours 60)

1. Critique and formulation of messages and tools for the prevention of NCDs

- 1. Critique and analyze the global and Indian trends of NCDs
- 2. Formulation of preventive strategies for specific diseases
- 3. Market survey on personalized nutrition supplements, nutraceuticals, and plant-based products

2. Orientation to counseling for lifestyle modification

- 4. Critique of various diet counseling apps
- 5. Community/ facility visit to observe a diet counseling session
- 6. Planning a diet counseling session for NCDs
- 7. Use of physical activity assessment tool- GPAQ (Global Physical Activity Questionnaire)

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

- 8. Dyslipidemia/ Atherosclerosis/ Hypertension
- 9. GI Tract disorders- GERD, peptic ulcer
- 10. Liver-Infective hepatitis
- 11. PCOD

Essential Readings

- Vir, S. (2021). Public Health Nutrition in Developing Countries (Vol 1 & Developing Countries
- Wadhwa, A and Sharma, S (2003). Nutrition in the Community- A Textbook. Elite Publishing House Pvt. Ltd. New Delhi.
- 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.
- Willett, Walter et al. (2019). Food in the Anthropocene: the EAT- Lancet Commission on healthy diets from sustainable food systems. The Lancet, Volume 393, Issue 10170, 447 492.
- Vir, S.C. (Ed.). (2011). Public Health Nutrition in Developing Countries. Part 1 and 2. Woodhead Publishing India.
- GPAQ-https://www.who.int/docs/default-source/ncds/ncd-surveillance/gpaq-analysis-guide.pdf
- National Operation Guidelines for Prevention and Control of NCDs-https://mohfw.gov.in/sites/default/files/NP-NCD%20Operational%20Guidelines 0.pdf

Suggested Readings

- Vir, S. (2023). Child, adolescent and women nutrition in India: Public Policies, programme and progress. KW Publishers, Daryaganj, New Delhi, India.
- 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.
- Williams, S.R. (2001) Basic Nutrition and Diet Therapy. 11th ed. Times Mirror Mosby College Publishing

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE FN -103 INDIAN KNOWLEDGE SYSTEMS AND NUTRITION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)	
Couc		Lecture	Tutorial	Practical		(ii uny)	
DSE FN -103 Indian Knowledge Systems and Nutrition	4	3	0	1	As per admission	Nil	

Learning Objectives

- To develop understanding of IKS, Ayurveda and modern nutrition for holistic health and wellness
- To apply integrative dietary strategies from Ayurvedic principles for managing noncommunicable diseases (NCDs).
- To critically evaluate scientific evidence validating Ayurvedic nutrition concepts, functional foods, and gut-microbiome interactions in contemporary health contexts.
- To design practical interventions, such as personalized meal plans and public health programs, that synergize Ayurvedic and modern nutritional practices. o explain the fundamentals of dyeing of textiles

Learning Outcomes

The students would be able to:

- Learn the importance and scope of IKS and concepts of food & nutrition in Ayurveda.
- Integrate Ayurvedic dietary principles with modern nutrition guidelines to create balanced, holistic diet plans for health maintenance and disease prevention.
- Analyze evidence-based research on Ayurvedic functional foods and herbs and correlate their therapeutic applications in preventive and therapeutic nutrition.

• Design personalized diets and public health programs blending Ayurveda and modern science to manage NCDs.

THEORY (Credits 3; Hours 45)

UNIT I: Introduction to Indian Knowledge Systems (IKS) and principles of food & nutrition in Ayurveda 15 Hours

This unit deals with the introducing the Indian Knowledge Systems and concept of health, wellness and nutrition in Ayurveda.

- Indian Knowledge Systems: Introduction, historical context and holistic approach to health. Models of health, wellness & nutrition in different Indian Knowledge Systems.
 Need for integration with modern science and challenges.
- Principles of food and nutrition in Ayurveda: Panchamahabhuta, Tridosha, Agni, Prakriti. Concept of Prabhava- six tastes (Rasa), physical properties and their attributes (Guna), potency (Virya), and post-digestive effect (Vipaka). Food combinations and concept of sattvic, rajasic and tamasic foods. Understanding the concepts of Aharavidhividhan, Ashta ahara vidhi visheshayatana. Categories of food sources described in Ayurveda.

UNIT II: Integrative Approaches to nutrition and health

5 Hours

This unit highlights the integrative approaches in Ayurveda and modern nutrition for optimal health and wellness

- Integrating Dietary Guidelines in Ayurveda and Modern Nutrition
- Complementarity and differences between the concepts of *Aharavidhividhan*, *Ashta ahara vidhi visheshayatana* and modern dietary guidelines-concept of balanced diet, food plate and dietary guidelines given by ICMR.

UNIT III: Integrative Approaches to nutrition, health and Disease Management 10 Hours

This unit highlights the integrative approaches in Ayurveda and modern nutrition for disease prevention

- Integrative approaches for management of non-communicable diseases (obesity, diabetes, and cardiovascular diseases etc.)
- Concept of rasayana in Ayurveda and its understanding in modern science
- Role of Ayurvedic herbs and functional foods in disease prevention

UNIT IV: Research and Applications in Integrative Nutrition and Ayurveda 15 Hours

This unit deals with scientific validation of Ayurvedic nutrition concepts with modern science

- Gut health and microbiome: Ayurvedic and modern perspectives.
- Evidence-based research on Ayurvedic concepts, diets and herbs.
- Integrating Ayurveda into public health nutrition programs

PRACTICAL (Credits 1; Hours 30)

- 1. To perform a comparative analysis of concepts of health, wellness and nutrition in different Indian Knowledge Systems.
- 2. To assess the doshas (Vata, Pitta, Kapha) and prakriti (constitution) of individuals and recommend suitable food items from all food groups based on their unique Ayurvedic profile.
- **3.** Design an *Agni* assessment questionnaire to evaluate *agni* using Ayurvedic principles and integrate inferences with modern nutrition practices.
- **4.** Design a day's meal plan incorporating principles of Ayurveda and nutrition. Include principles of all six tastes, compatible food combinations ensuring a balanced diet.
- **5.** Create a list of Ayurvedic eating practices including principles of *Aharavidhividhan* and relate it with modern concepts (mindful eating, digestive health etc.).
- **6.** Identify and enlist 5-6 functional herbs used in Ayurveda and write their therapeutic applications.
- **7.** Explore the bioactive components of the herbs identified above, and investigate their therapeutic applications in managing non-communicable diseases (NCDs) through evidence-based journal articles.
- **8.** Design a program for integrating Ayurvedic principles into public health nutrition programs.

Essential Readings

• Rastogi, S. (2013). Ayurvedic Principles of Food and Nutrition: Translating Theory into

Evidence-Based Practice. In Ayurvedic Science of Food and Nutrition (pp. 3-14). New York, NY: Springer New York.

- Indian Council of Medical Research (ICMR). (2020). Dietary Guidelines for Indians. NIN.
- Lad, V. (2006). Textbook of Ayurveda: Fundamental Principles. Ayurvedic Press.

Suggested Readings

- Rastogi, S. (2013). Ayurvedic Principles of Food and Nutrition: Translating Theory into Evidence-Based Practice. In Ayurvedic Science of Food and Nutrition (pp. 3-14). New York, NY: Springer New York.
- Indian Council of Medical Research (ICMR). (2020). Dietary Guidelines for Indians. NIN.
- Lad, V. (2006). Textbook of Ayurveda: Fundamental Principles. Ayurvedic Press.

SKILL BASED COURSE SEC FN-101 NUTRITION SCREENING AND ASSESSMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credi	t Distributi Course	on of the	Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(ii uny)
SBC FN-101 Nutrition Screening and Assessment	2	0	0	2	As per admission	Nil

Learning Objectives

- To gain an insight into the importance/relevance of nutrition screening and assessment in the community and hospital settings.
- To study quality control and standardization techniques in nutritional screening and assessment.
- To get an exposure to various nutritional screening and assessment methods.
- To develop or adapt/modify existing nutrition screening tools/programs for diverse cultural and socioeconomic settings.
- To understand the role of emerging methods/technologies in nutrition assessment.
- To interpret results from nutritional screening and assessment tools and communicate the findings.

Learning Outcomes

The students would be able to:

- Assess nutritional status based on clinical signs and symptoms, anthropometric measurements and dietary intake at the individual and community level.
- Maintain accuracy and consistency in nutrition screening and assessment methods through quality control measures.
- Use of specialized nutrition screening and assessment tools in community and hospital settings.
- Analyse, document and present nutrition assessment data.

PRACTICAL (Credits 2; Hours 60)

1. Relevance, significance and methods of Nutrition Screening and Assessment

- Importance of nutrition screening and assessment.
- Relevance and application of different nutrition screening tools.
- Methods of nutritional assessment in the community and hospital settings.

2. Standardization, Quality Control & Assurance in Nutrition Screening and Assessment

- Standardization, calibration and validation of assessment tools.
- Inter-observer and intra-observer variability in measurements.
- Guidelines for maintaining accuracy and consistency in screening/assessment methods
- Methods to minimize errors in nutrition screening and assessment

3. Ecological variables in nutritional assessment

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4. Clinical examination for nutritional assessment.

• Identification of key clinical signs and symptoms of nutritional disorders.

5. Anthropometric measurements for nutritional assessment.

- Measurement of Weight, Height/Length, Mid Upper Arm Circumference and Waist Circumference.
- Interpretation of anthropometric data using various Indices and indicators in different age groups.

6. Dietary assessment

- Assessment of dietary intake pattern, dietary diversity and estimation of food and nutrient intake - Food Frequency Questionnaire and 24-Hours Diet Recall
- Use of mobile applications and digital tools for dietary assessment.

7. Assessment of body composition

• Estimation of fat mass and lean body mass using Bioelectric Impedance method.

8. Screening for risk of development of Non-Communicable Diseases

• Screening for risk of developing non-communicable diseases (Diabetes, Hypertension, Cardiovascular Diseases).

9. Interpretation, documentation and presentation of data on nutritional status assessment.

Nutrition data presentation, interpretation and report writing.

Essential Readings

- Gibson, R. S. (2005). *Principles of Nutritional Assessment*. Oxford University Press.
- Lee, R. D., & Nieman, D. C. (2018). *Nutritional Assessment*. McGraw-Hill Education.

- Mahan, L. K., & Raymond, J. L. (2020). *Krause's Food & the Nutrition Care Process*. Elsevier.
- WHO & FAO Reports on Nutrition Assessment and Screening Guidelines.

Suggested Readings

- Gropper, S. S., Smith, J. L., & Carr, T. P. (2019). *Advanced Nutrition and Human Metabolism*. Cengage Learning.
- Willett, W. C. (2013). *Nutritional Epidemiology*. Oxford University Press.
- Recent research articles and journals on AI and digital tools in nutrition assessment.
- Reports on cultural and socioeconomic adaptations in nutrition screening.

SKILL BASED COURSE SEC FN-102 SCIENTIFIC WRITING

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)
Couc		Lecture	Tutorial	Practical		(II unij)
SBC FN 102 Scientific Writing	2	0	0	2	As per admission	Nil

Learning Objectives

- Introduce students to diverse forms of scientific writing, including research articles, theses, and reviews.
- Equip students with skills to write publishable scientific research articles.
- Train students in managing references using tools like Mendeley, Zotero etc.
- Develop skills for effective communication of scientific findings.

Learning Outcomes

The students would be able to:

- Write clear and structured scientific documents adhering to standard formats and ethical guidelines.
- Effectively use reference management and data visualization tools for scientific writing.
- Communicate scientific information to both academic and general audiences through various formats
- Critically evaluate and improve scientific manuscripts using proofreading and peer-review techniques.

PRACTICAL

(Credits 2; Hours 60)

1. Introduction to Scientific Writing:

(1 week)

Forms of scientific writing: Theses, technical papers, reviews, manuals; Key elements of scientific articles; Basics of technical writing

Assignment : Select a published scientific article and condense it into a concise abstract (1/10th of the original length)

2. Language and Structure in Scientific Writing:

(1 week)

Importance of clarity, choosing the right words, sentence structure, tenses, active vs. passive voice; Paragraph structuring, punctuation, and logic flow; Précis writing **Assignment:** Rewrite a complex scientific paragraph to make it clearer and more concise without losing essential details.

3. Using Tools and Resources for Scientific Writing:

(2 weeks)

Web-based search engines, using authentic sources; Reference management tools (e.g., Mendeley, Zotero)

Assignment : Create a detailed review of an instrument, technique, or technology used in Food and Nutrition research.

4. Visual Communication in Science:

(2 weeks)

Creating tables, graphs, and figures; Using MS Office, Excel for data, and creating graphs/tables; Developing explanatory artwork and PowerPoint presentations; Designing scientific posters.

Assignment : Create tables and graphs using a given set of data

Assignment : Design a scientific poster on a current issue in food science and nutrition using assignment 4

5. Writing for General Audiences

(2 weeks)

- Science writing for the general public.
- Differences between technical writing and science communication.
- Writing science news and popular articles

Assignment : Convert the review (Assignment 3) into an article targeted at a general audience.

6. Academic Writing – Structure and Ethics

(2 weeks)

- Components of scientific papers: Title, abstract, introduction, methods, results, discussion, conclusion
- Ethics in writing, plagiarism, and using plagiarism checkers
- Selecting journals, understanding impact factors, and submission processes

Assignment : Write a short communication based on a recent lab experiment or field study.

7. Reviewing and Proofreading

(1 week)

- Peer-review process and proofreading techniques
- Using proofreading symbols and online review tools
- Addressing reviewers' comments

Assignment : Peer review a classmate's short communication using proofing symbols and suggest improvements.

8. Advanced Scientific Writing

(1 week)

- Writing review papers and meta-analyses.
- Understanding citation styles (APA, Vancouver) and managing bibliographies **Assignment :** Rewrite the bibliography of the review paper done in Assignment 3 in APA, and Vancouver styles.

9. Presenting Research

(3 weeks)

- Preparing and presenting research at conferences.
- Designing posters and oral presentations.

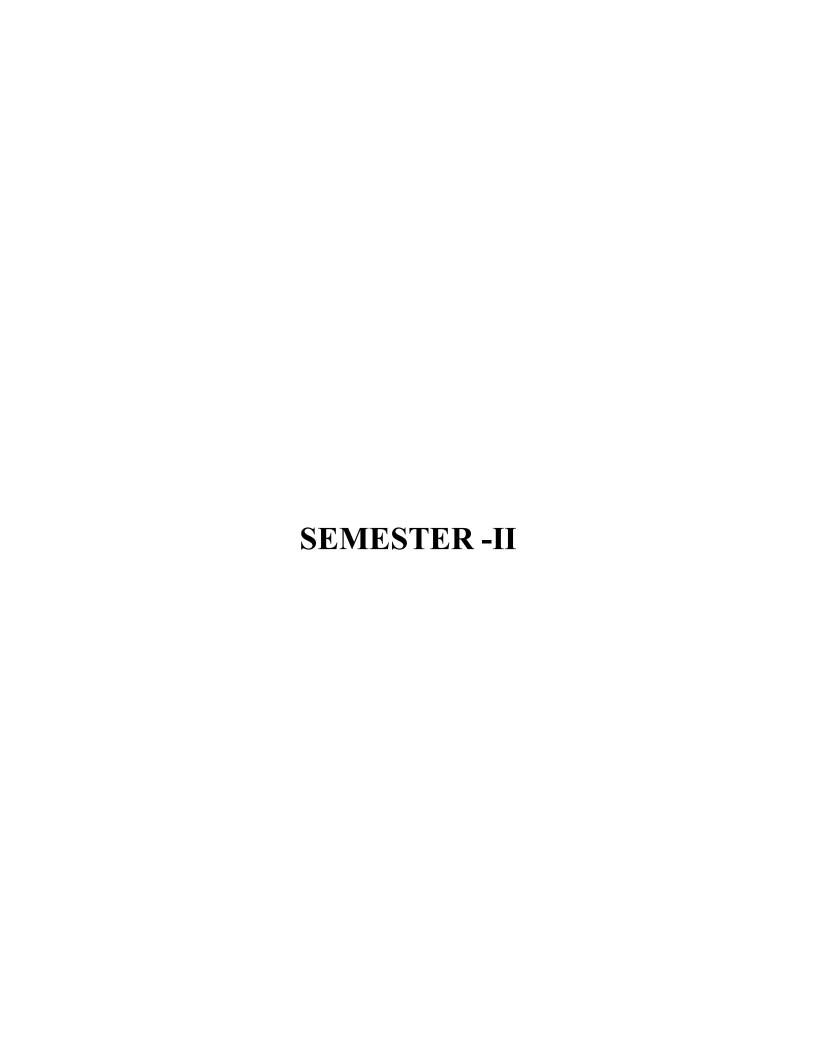
Assignment: Prepare a PowerPoint presentation on a food or nutrition-related topic

Assignment: Deliver the prepared PowerPoint presentation

Essential Readings

- Mohapatra, P.K.J and Moulick, S. (2025). Principles of Scientific and Technical Writing. McGraw Hill
- 2. Hofmann, A.H. (2016). Scientific Writing and Communication. Oxford Univ Pr; 3rd edition
- 3. Day, R.A; Gastel, B. (2006). How to Write and Publish a Scientific Paper. Greenwood Publishers
- 4. Kalpana, S. and Kanimozh, K. (2024). Scientific Writing Handbook. CBS Publishers and Distributors Pvt. Ltd.

Note: Examination scheme and mode shall be as per the Examination branch, University of Delhi.



DISCIPLINE SPECIFIC CORE COURSE

DSC FN 204: CLINICAL BIOCHEMISTRY: METABOLIC AND CLINICAL ASPECT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
DSC FN 204 Clinical Biochemistry: Metabolic and Clinical Aspect	4	3	0	1	As per admsision	Basic Knowledge of Biomolecules

Learning Objectives

- To comprehend the metabolism of carbohydrate, lipid, protein and nucleotides.
- To understand how biochemical processes are altered in various diseases.

Learning Outcomes

The students will be able to:

- Describe the mechanism adopted by the human body for regulation of metabolic pathways.
- Interpret pathophysiology of various diseases on the basis of various biochemical parameters.
- Explain the role of hormones in signaling mechanism.

THEORY

(Credits 3; Hours 45)

UNIT I: Carbohydrate Metabolism and its Metabolic Disorders

15 hours

This unit lays thrust on the carbohydrate metabolism and its associated disorders.

- Glycolysis and its regulation
- Gluconeogenesis
- Pentose phosphate pathway and its importance
- Glycogenesis
- Overview of citric acid cycle
- Diseases associated with metabolic irregularities (Glycogen storage diseases; Von Gierke, Cori and McArdle; Type II Diabetes Mellitus)
- Role of insulin, glucagon and epinephrine in metabolism regulation

UNIT II: Lipid metabolism and related disorders

12 hours

This unit highlights lipid biosynthesis, ketosis and associated abnormality.

- β-oxidation of saturated fatty acid and its regulation
- Ketone body formation
- Cholesterol biosynthesis and its regulation
- Diseases associated with abnormal lipid metabolism (Ketosis, hyperlipidemia and cardiovascular problems)

UNIT III: Protein metabolism and related disorders

10 hours

This unit gives emphasis on transdeamination process, formation of urea and also focuses on associated disorders.

- Transamination and deamination of amino acids
- Urea cycle
- Disorders of amino acid metabolism: Phenylketonuria, Alkaptonuria, Maple syrup urine disease and Homocystinuria
- Clinical significance of SGPT and SGOT

UNIT IV: Nucleotide metabolism and its Metabolic Disorders

8 hours

This unit give information regarding Nucleotide degradation and its related disorders.

- Degradation of purine and pyrimidine nucleotides
- Disorders of nucleotide metabolism: Lesch-Nyhan syndrome, Hypouricemia and Gout

PRACTICAL

(Credits 1; Hours 30)

- 1. Estimation of glucose.
- 2. Estimation of serum cholesterol.
- 3. Estimation of SGPT/SGOT.
- 4. Estimation of serum creatinine.
- 5. Estimation of uric acid.
- 6. Estimation of urea.
- 7. Case study of metabolic disorders.
- 8. Visit to pathology or diagnostic lab.

Essential Readings:

- Nelson, D. L. & Cox, M. M. (2021). Lehninger principles of biochemistry (8th ed.). Macmillan International Higher Education.
- Kennelly, P.J. (2023). Harper's illustrated biochemistry (32nd ed.). New York: McGraw-Hill.
- Satyanarayana, U & Chakrapani U. (2020). Biochemistry (5th ed.). Books and Allied
 (P) Ltd.
- Sundararaj P. & Siddhu, A. (2002). Qualitative tests and Quantitative Procedures in Biochemistry (2nd ed.). New Delhi: A. H. Wheeler and Co Ltd.
- Gupta, S.K.; Ghalaut, V.S.; Jain, A. (2018) Manual of Practical Biochemistry for MBBS (3rd ed.). New Delhi: Arya Publishing Company.
- Vasudevan, D.M.; Sreekumari, S; Vaidyanathan, K (2019). Textbook of biochemistry for medical students (9th ed.) New Delhi: JAYPEE Brothers Medical Publishers (P) Ltd.

Suggested Readings:

- West, E.S. & Damp; Todd W.R. (1966). Textbook of Biochemistry (4th ed.). New York: Macmillan.
- Sawhney, S.K. & Singh, R. (2022). Introductory Practical Biochemistry (2 nd ed.) Narosa Publishing House.

DISCIPLINE SPECIFIC CORE COURSE DSC FN 205: ADVANCED CLINICAL NUTRITION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course Lecture Tutorial Practical			Eligibility Criteria	Pre-requisite of the Course (if any)
DSC FN 205 Advanced Clinical Nutrition	4	2	0	2	As per admission	Basic knowledge of normal and therapeutic nutrition

Learning Objectives

- To understand the basic principles in the management of hospitalized patients using the nutrition care process.
- To understand the etiopathophysiology and metabolic anomalies of various disorders/ diseases and provide appropriate nutrition care and medical nutrition therapy (MNT) of various disorders / diseases
- To acquire basic skills in dietary counseling for management of various disease conditions

Learning Outcomes

Student will be able to:

- Acquire an in depth understanding about the etiopathophysiology and metabolic anomalies and MNT of various disorders/diseases
- Plan diets based on basic principles in management of hospitalized patients
- Use the principles of dietary counseling in various diseases.

THEORY

(Credits 2; Hours 30)

UNIT I: Nutritional Care of Patients

6 Hours

Students will be introduced to the concept of nutrition support systems. Nutrition care process, ethical issues in patient care and principles of MNT in a hospital setting for both outpatient &

hospitalized patients will be explained.

- Nutrition care process: Nutritional screening and assessment of the patients out patient & hospitalized patients, Nutrition diagnosis, nutrition care plan and implementation Nutrition monitoring, evaluation and follow up
- Dietary counseling
- Ethical issues in patient care
- Nutrition support systems Enteral and Parenteral Nutrition

UNIT II: MNT for metabolic disorders

10 Hours

Students will understand the etiopathophysiology, metabolic & clinical aberrations, diagnosis, complications, treatment, MNT and recent advances in different diseases/disorders. They will also be trained on disease specific dietary counseling.

- Metabolic disease: Diabetes Mellitus (Type 1, Type 2, Gestational Diabetes)
- Cardiovascular diseases: Metabolic Syndrome, Myocardial Infarction, Congestive heart failure

UNIT III: MNT of gastrointestinal, hepatobiliary, lung

8 Hours

Students will understand the etiopathophysiology, metabolic & clinical aberrations, diagnosis, complications, treatment, MNT and recent advances in degenerative diseases/disorders and also be trained on disease specific dietary counseling. Gastrointestinal disorders- Inflammatory Bowel Disease (IBD), Diverticular disease

- Hepatobiliary and pancreatic disorders- Metabolic dysfunction-associated fatty liver disease (MAFLD), Liver Cirrhosis, Cholelithiasis, Cholecystitis, Pancreatitis
- Chronic Obstructive Pulmonary Disease

UNIT IV: MNT of gastrointestinal, hepatobiliary, lung and bone disorders & introduction to MNT for surgery 6 Hours

Students will also understand the basic procedures of bariatric surgery and management of patient pre and post bariatric surgery

- Bone disorders Osteoporosis, sarcopenia
- Bariatric surgery: Types of bariatric surgery procedures, indications and contraindications, Pre and post-operative nutritional care

PRACTICAL

(Credits 2; Hours 60)

- Assessment of patient needs nutritional assessment and screening
- Nutritional interpretation of routine medical and laboratory data Fasting and Post Prandial Blood Glucose, HbA1c, Lipid Profile, Liver Function Test
- Demonstration of dietary assessment software

• Planning and preparation of diets and dietary counseling for following diseases

- Type 1 diabetes
- Type 2 diabetes / Metabolic Syndrome
- Myocardial Infarction
- Congestive heart failure
- IBD
- MAFLD
- Pancreatitis
- Post-operative diet

Essential Readings

- Indian Dietetics Association, (2018) Clinical Dietetics Manual, 2nd Edition. Elite Publishing House Pvt. Ltd
- Khanna K, Gupta S, Seth R, Passi SJ, Seth R, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics.2nd Edn. Phoenix Publishing House Pvt. Ltd.
- 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.

Suggested Readings

- Chowdhary S.R and Aeri B.T. (2023) Textbook of Food Science and Nutrition. Aarahan Publishers. ISBN:978-93-87270-08-4 https://amzn.eu/d/blLz8S8
- Gibney MJ, Elia M, Ljungqvist &Dowsett J. (2005) Clinical Nutrition. The Nutrition Society Textbook Series. Blackwell Publishing Company
- ICMR (2020) Estimated Average Requirements and Recommended Dietary Allowances for Indians. Published by National Institute of Nutrition, Hyderabad.
- Joshi Y K.(2008) Basics of Clinical Nutrition 2nd ed. Jaypee Brothers Medical Publishers
- Longvah T, Ananthan R, Bhaskarachary K and Venkaiah K (2017). Indian Food Composition Tables. National Institute of Nutrition, ICMR, Hyderabad.
- Puri S, Bhagat A, Aeri, BT, Sharma A (2019). Food Exchange List: A Tool for meal Planning. Elite Publishing House. New Delhi.
- Shils, M.E., Shike, M, Ross, A.C., Caballero B and Cousins RJ (2005) Modern Nutrition in Health and Disease. 10th ed. Lipincott, William and Wilkins.
- Siddhu A, Bhatia N, Singh K, Gupta S (2017). Compilation of food exchange list, technical series 6, Lady Irwin College, University of Delhi. Publ. Global Books Organisation, Delhi
- Williams, S.R. (2001) Basic Nutrition and Diet Therapy. 11th ed. Times Mirror Mosby College Publishing

DISCIPLINE SPECIFIC CORE COURSE

DSC FN 206: APPROACHES, POLICIES AND PROGRAMMES IN PUBLIC HEALTH NUTRITION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit Distribution of the Course			Pre- requisite of	Eligibility Criteria
Code		Lecture	Tutorial	Practical	the Course (if any)	
DSC FN 206 Approaches, Policies and Programmes in Public Health Nutrition	4	3	0	1	Should have studied the basics of Food and Nutrition, and Nutrition across the Lifespan at the undergradu ate level	As per admission

Learning Objectives

- To understand the food-based, health-based, education-based and some other approaches for improving nutrition and health status of the population.
- To gain an insight into meaning and importance of a policy, and the public sector policies on nutrition, health, food security, population, water and sanitation in India.
- To get an exposure to the salient components and impact of various nutrition-specificand nutrition-sensitive programmes on the population.

Learning Outcomes

The students would be able to:

- Explain the different approaches such as food-based, health-based, education-based and some other for improving nutrition and health status of the population.
- Describe the relevance of a policy, and public sector policies on nutrition, health, food security, population, water and sanitation.
- Explain the salient components and impact of various nutrition-specific and nutrition-sensitive

programmes on the population.

• Develop tools/communication aids for creating nutrition awareness among vulnerable population groups.

THEORY (Credits 3; Hours 45)

UNIT I: Approaches for Improving Nutrition and Health Status

16 Hours

This unit lays thrust on food-based, health-based, education-based and other approaches and strategies for improving nutrition and health status of the population.

- Food based approaches including food fortification, dietary diversification, supplementary nutrition programmes and biotechnological approaches
- Health based approaches including immunization, provision of safe drinking water/sanitation, prevention and management of diarrhoeal diseases, other health services such as antenatal care, deworming, medicinal supplements
- Education based approaches including growth monitoring and promotion (GMP), health/nutrition related social and behaviour change communication
- Other Approaches such as Conditional Cash Transfer, Livelihood and Women Led Income Generation

UNIT II: National/Public Sector Policies for Improving Nutrition and Health Status

9 Hours

This unit highlights the meaning and purpose of a policy, importance of multi-sectoral policies, and the national/public sector policies on nutrition, health, food security, population, water and sanitation.

- Meaning and purpose of a policy
- Importance of multi-sectoral policies in public health nutrition
- Public policies for improving nutrition and health of the population (food security, nutrition, health, population, water and sanitation sectors)

UNIT III: National/Public Sector Nutrition-Specific Programmes for Improving Nutrition and Health Status 8 Hours

This unit deals with the salient components and impact of nutrition-specific programmes on the population.

- Nutrition-specific programmes rationale, components, implementation status
- Impact of nutrition-specific programmes on nutrition and health of the population Some success stories

UNIT IV: National/Public Sector Nutrition-Sensitive Programmes for Improving Nutrition and Health Status 12 Hours

This unit deals with the salient components and impact of nutrition-sensitive programmes on the population.

- Nutrition-sensitive programmes rationale, components, implementation status
- Impact of nutrition-sensitive programmes on nutrition and health of the population Some success stories

PRACTICAL (Credits 1; Hours 30)

- 1. Planning of cyclic menu for school feeding programme.
- 2. Plotting and interpretation of growth charts.
- **3.** Planning and preparation of tools/communication aids for creating nutrition awareness among vulnerable population groups.
- **4.** Critical appraisal of ongoing public sector programmes.
- **5.** Field visit to an ongoing national public health nutrition programme.

Essential Readings

- Vir, S.C. (2023). Child, Adolescent and Woman Nutrition in India: Public Policies, programmes and Progress. KW Publishers Pvt. Ltd.
- Park, K. (2023). Park's Textbook of Preventive and Social Medicine (27th ed.), Jabalpur, India: Banarasidas Bhanot Publishers.
- Vir, S.C. (2021). Public Health Nutrition in Developing Countries. Volume-II, 2nd edition. Woodhead Publishing India Pvt Ltd.

Suggested Readings

- Bamji, M.S., Krishnaswamy, K. and Brahmam, G.N.V. (Eds) (2016). Textbook of Human Nutrition, 4th edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
- ICMR-NIN Expert Group on Nutrient Requirement for Indians, Recommended Dietary Allowances (RDA) and Estimated Average Requirements (EAR) 2020. ICMR-National Institute of Nutrition, Hyderabad.
- Longvah, T., Ananthan, R., Bhaskarachary, K. and Venkaiah, K. (2017). Indian Food Composition Tables. National Institute of Nutrition, ICMR, Hyderabad.
- Chadha, R. and Mathur, P. (eds.) (2015). Nutrition A Lifecycle Approach. New Delhi, India: Orient Blackswan Pvt. Ltd.

- Gibney, M.J., Margetts, B.M., Kearney, J.M. Arab, I., (Eds) (2004) Public Health Nutrition, NS Blackwell Publishing.
- Dietary Guidelines for Indians (2024). ICMR-National Institute of Nutrition, Hyderabad.
- Khanna, K, Gupta, S, Seth, R, Mahna, R, Rekhi, T (2018) The Art and science of Cooking. Fifth Edition. Elite Publishing House Pvt. Ltd.
- Raina, U., Kashyap, S., Narula, V., Thomas, S., Suvira, Vir, S., Chopra, S. (2010) Basic food preparation. (4th ed.) Lady Irwin College.
- Indian government websites Ministry of Health and Family Welfare, Ministry of Women and Child development, NITI Aayog etc.

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE HSC 201: ADVANCED RESEARCH METHODS IN HOME SCIENCE

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course (if any)	
3000		Lecture	Tutorial	Practical		(II any)	
DSE HSC 201: Advanced Research Methods in Home Science	4	3	0	1	As per admission	Nil	

Learning Objectives

- To explain the types and approaches to research.
- To describe the principles and process of quantitative research approach.
- To describe the principles and process of qualitative research approach.
- To elaborate the critical ethical issues for planning, conducting and publishing research.

Learning Outcomes

The students would be able to:

- Describe the types, paradigms and approaches to research.
- Employ the principles and process of quantitative research approach.
- Appraise the principles and process of qualitative research approach.
- Apply the principles of ethics in designing, executing and reporting of research.
- Formulate a research proposal in any specialized area of Home Science.

THEORY (Credits 3; Hours 45)

10 Hours

UNIT I: Research: Paradigms, approaches and process

This unit introduces the concept, types, designs, paradigms, approaches and process of research. The unit also highlights the concerns of reliability and validity in research.

- Definition and objectives of research
- Importance, scope and types of research
- Research design: Concept and significance
- Paradigms of research
- Research approaches: Quantitative, qualitative and mixed methods
- Reliability and validity in research methods and concerns
- The Research Cycle

UNIT II: Principles and process of quantitative research approach

12 Hours

This unit focuses on various research designs, methods of sampling and data collection techniques followed in quantitative research approach. It also emphasizes on the levels of measurement of data and errors in quantitative research

- Components, types and applications of research designs in quantitative research approach:
 Observational and experimental designs
- Concept of sampling, sampling methods Probability and non-probability sampling in quantitative research
- Methods of data collection in quantitative research
- Measurement in research, scales and errors in measurement
- Errors in inference bias and confounding

UNIT III: Principles and process of qualitative research approach

14 Hours

This unit introduces students to qualitative research methodologies, exploring their philosophical foundations, data collection methods, analysis techniques and ethical considerations.

- Philosophical underpinnings: Constructivism, interpretivism and critical theory
- Approaches to qualitative research: Ethnography, phenomenology, case study research, grounded theory and action research.
- Sampling in qualitative research
- Data collection methods and techniques: Observation, interview, focus group discussion and case study.
- Data management and analysis in qualitative research: Thematic, narrative and discourse analysis

UNIT IV: Research and publication ethics

9 Hours

This unit addresses issues related to research integrity, responsibilities of researchers and ethical standards for publishing academic work.

- Definition and importance of research ethics: Ethical concerns for research in the field of Home Science
- Ethical principles in Research planning and execution: Informed consent, anonymity, confidentiality and privacy, voluntary participation, safety and dignity of participants, transparency
- Data integrity and ethical data collection: use of appropriate methodology, ensuring accuracy and validity, managing sensitive data, avoiding misuse of information
- Bias and conflict of interest in research
- Forms of research misconduct: Fabrication and falsification of data and plagiarism
- Ethical issues in research publication: Selective reporting, misrepresentation of data, salami slicing and predatory publications

PRACTICAL (Credits 1; Hours 30)

- 1. Critical review of a published original research article in any area of Home Science.
 - Identification and documentation of strengths and weaknesses of various components of the selected research article
- 2. Sampling in Research
 - Probability and non-probability sampling techniques
- 3. Formulation of a data collection tool
- 4. Referencing and Citation in Scientific Writing
 - Importance and different styles of referencing
 - Concept of in-text and post-text referencing
 - Digital tools for referencing
- 5. Plagiarism in research
 - Concept and types of Plagiarism
 - Technical writing using quotations, paraphrasing and summarizing

- Plagiarism detection software
- 6. Formulation of a research proposal
 - Identification of a research problem/thrust area in any specialization of Home Science
 - Literature review related to the identified research problem
 - Proposal formulation giving timeline for conducting the research study

Essential Readings

- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research* (4th ed.). Cengage Learning.
- Kothari, C. R., & Garg, G. (2023). *Research Methodology: Methods and Techniques*. New Age International Pvt Ltd, New Delhi.
- Kumar, R. (2019). *Research Methodology: A Step-by-Step Guide for Beginners*. 5th Ed. Sage Publications, New Delhi.
- UGC (2021) *Academic Integrity and Research Quality*. New Delhi: UGC, Retrieved from https://www.ugc.ac.in/e-book/Academic%20and%20Research%20Book_WEB.pdf

Suggested Readings

- Aggarwal, J. & Sabharwal, V. (2025). Essentials of Research Methodology- A Practical Manual. Elite Publishing House, New Delhi.
- Bernard, H. R. (2000). Social research methods: Qualitative and quantitative approaches. Thousand Oaks, CA.: Sage.
- Maxwell, J. A. (2013). Qualitative research design: An interactive approach (3rd ed.).
 SAGE Publications.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). SAGE Publications.
- Silverman, D. (2020). *Qualitative research* (5th ed.). SAGE Publications.

DISCIPLINE SPECIFIC ELECTIVE COURSE DSE FN 202: FOOD MICROBIOLOGY AND FOOD SAFETY

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credi	t Distributi Course	on of the	Pre- requisite of the Course	Eligibility Criteria
Code		Lecture	Tutorial	Practical	(if any	
DSE FN 202 Food Microbiology and Food Safety	4	2	0	2	Knowledge of Food Science and Processing	Nil

Learning Objectives

- To impart knowledge about the cultivation and enumeration of micro-organisms
- To help in understanding the concept of microbiological safety in various food operations
- To understand the food safety surveillance system

Learning Outcomes

The students would be able to:

- describe the method of cultivation and enumeration of micro-organisms
- appreciate the significance of microbial safety in different food operations
- describe the food safety surveillance system especially of India

THEORY (Credits 2; Hours 30)

UNIT I: Cultivation and Enumeration of Micro-organisms

10 Hours

This unit deals with the techniques that are related to enumeration of micro-organisms and their role in food preparation and food borne diseases

- Overview of microbes and scope of food microbiology.
- Prebiotics, Probiotics, Postbiotics, Synbiotics
- Principles of cultivation of micro-organisms

- Pure culture technique
- Estimating number of micro-organisms
- Fermentation-types, factors affecting fermentation
- Single Cell Proteins

UNIT II: Micro-organisms in food preparation and food borne diseases 5 Hours

This unit strengthens concepts of the role of micro-organisms in food preparation and food borne diseases

- Food borne infections and intoxications
- Food pathogens common and emerging

UNIT III: Food Safety- Microbiological Aspects

10 Hours

This unit deals with the different types of hazards that are associated with food

- Types of Hazards (Physical, Chemical, Biological, Allergens)
- Mode of entry of microbiological hazards into food
- Indicator micro-organisms.
- ICMSF criteria for microbiological safety of food-Microbiological standards
- Management of Hazards- Design of food plant, Temperature danger zone, Food handler, personal hygiene, Pest and rodent control, Waste disposal, Food Plant Sanitation
- Food safety surveillance system: definition, basic concepts, major components/characteristics, organization structure.

UNIT IV: Food Safety- Regulatory aspects

5 Hours

This unit deals with and the regulations that ensure food safety

- Food Safety regulations and current status in India
- HACCP, ISO 22000, GHP, GMP, Risk Analysis

PRACTICAL (Credits 2; Hours 60)

- 1. Techniques and Instruments used in Microbiology
- 2. Morphology and structural features of various micro-organisms by simple staining.
- 3. Morphology and structural features of various micro-organisms by gram staining.
- 4. Study and preparation of various media
- 5. Enumeration of microorganisms associated with food samples

- 6. Effect of pH on bacterial growth curve
- 7. Effect of temperature on bacterial growth curve
- 8. Assessment of Personal hygiene
- 9. Assessment of surface sanitation by swab /rinse method
- 10. Case study on HACCP adoption by a food manufacturing unit
- 11. Production of fermented food products

Essential Readings

- Frazier, W.C. & Westoff, D.C. (2013) Food Microbiology, 5th Edition. Tata McGraw Hill Co. Ltd.
- Jay, J.M., Loessner, D.A. & Martin, J. (2006) Modern Food Microbiology, 7th Edition. Springer
- Banwart, G.J. (2004) Basic Food Microbiology, 2nd Edition. CBS Publishers and Distributors, India.
- Garbutt, J. (1997) Essentials of Food Microbiology, 1st Edition, Arnold International Students Edition.

Suggested Readings

- Forsythe, J.S. (2011). The Microbiology of Safe Food. 2nd Edition. Wiley- Blackwell Publishing.
- Suri S and Malhotra A (2014). Food Science, Nutrition and Food Safety. Delhi: Pearson India Ltd., New Delhi.
- Mathur P. (2018). Food Safety and Quality Control. Orient Blackswan Pvt. Ltd., Hyderabad.

DISCIPLINE SPECIFIC ELETIVE COURSE DSE FN 203 QUALITY MANAGEMENT IN FOOD INDUSTRY

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
DSE FN 203- Quality Management in Food Industry	4	2	0	2	As per admission	Knowledge of Food Science and Processing

Learning Objectives

- To appreciate the need for and importance of quality management in food processing.
- To identify and categorize types of intentional and non-intentional contaminants in the food chain.
- To understand the types of contaminants during processing and packaging

Learning Outcomes

The students would be able to:

- Understand and apply the knowledge of food quality management in food value chain.
- Explain the contaminants and adulterants in food quality assurance.
- Assess the risks associated with different types of contaminants and ways to control them.

THEORY (Credits 2; Hours 30)

UNIT I: Introduction and Quality Management Tools

11 Hours

This unit lays thrust on the introduction of quality management in food industry

• Introduction to quality management - Definition, Scope, Significance and Objectives of

Quality management; Dimensions of quality in foods, Food quality evaluation techniques, Quality control Vs Quality assurance.

• Statistical process control – Mean & range chart, P chart and C chart, PDCA cycle, Quality circle, Quality audit, Internal audit, Continuous improvement of productivity-proficiency testing for product quality- Six Sigma Concept.

UNIT II: Contamination in food chain and Quality Control in Process8 Hours

This unit will provide knowledge on different types of contamination (Physical, Chemical and Allergen), which occur naturally and form during processing.

- Contamination in food chain: Physical, chemical contaminants- heavy metals, pesticide residues, agrochemicals, antibiotics, veterinary drug residues, environmental pollutants, radionuclides, solvent residues.
- NOTS (Naturally Occurring Toxic Substances) intentional and unintentional additives in food.
- Contaminants formed during processing & packaging nitrosamines, acrylamide, dioxins, 3- mono chloro 1,2-propanediol (3-MCPD), furans, and methyl furans.
- Emerging concerns in food- Microplastics, Bisphenol A, Endocrine Disruptors, Food Allergens, Antimicrobial Resistance (AMR)

UNIT III: Adulteration 3 Hours

This unit will provide knowledge on adulteration.

• Adulteration - Types of adulterants, Adulterant identification techniques, MPL for adulterants

UNIT IV: Contamination and Quality Control in Process

8 Hours

This unit will provide knowledge on contaminants, which occur naturally and form during processing.

- Contaminants formed during processing & packaging nitrosamines, acrylamide, dioxins, 3- mono chloro 1,2-propanediol (3-MCPD), furans, and methyl furans.
- Emerging concerns in food- Microplastics, Bisphenol A, Endocrine Disruptors, Food Allergens, Antimicrobial Resistance (AMR)

PRACTICAL (Credits 2; Hours 60)

- 1. Determination of quality standards and inspection of various food grains- cereals and -nutri cereals/millets.
- 2. Determination of quality standards and inspection of pulses.
- 3. Determination of quality standards and inspection of spices and condiments.

- **4.** Perform qualitative tests for fats and oils.
- **5.** Determination of non-permitted colours in fruits and vegetables.
- **6.** Analysis of different types of edible salts for moisture content.
- 7. Analysis of different types of edible salts for MIW and total chlorides.
- **8.** Estimation of ammonia nitrogen in water.
- 9. Perform adulteration tests for food products
- 10. Prepare an effective HACCP plan for any food commodity or process in the food chain.

Essential Readings

- Pieternel A, Luning. &Willem, J. Marcelis. (2009). Food Quality Management Technological and Managerial principles and practices. Wageningen.
- Lawley, R., Curtis, L., & Davis, J. (2012). The food safety hazard guidebook. Royal Society of Chemistry.
- Mathur P. (2018). Food Safety and Quality Control. Orient Blackswan Pvt. Ltd., Hyderabad.
- DeMan. (2007). Principles of Food Chemistry. Springer, 3rdedition.
- Krammer, A. and Twigg, B.A. 2006. Quality control for the food industry, Volume 2, Applications. The AVI Publishing Company. Inc., Westport, Connecticut.

Suggested Readings

- Carol, E., Steinhart, M. and Ellin, D. (1995). *Food Safety*, Food Research Institute. New York: Marcel Dekker, Inc
- Shapton, D.A. and Shapton, N.F. (1998). *Principles and Practices for the safe processing of Foods*. CRC Press.

SKILL-BASED COURSE

SBC FN 201: NUTRITION AND HEALTH DATA VISUALIZATION

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
SBC FN 201 Nutrition and Health Data Visualization	2	0	0	2	Basic knowledge of nutrition and public health; proficiency in computers applications	NIL

Learning Objectives

- To understand the significance and core principles of effective data visualization in the context of nutrition and health.
- To learn how to extract, prepare, and transform data for effective visualization.
- To build proficiency in creating impactful visualizations, ranging from basic charts to advanced interactive visuals, using tools like Excel, Google Sheets, and specialized data visualization software.
- To apply data visualization techniques to nutrition-related data and create meaningful visuals and dashboards.

Learning Outcomes

The students would be able to:

- Demonstrate an understanding of the significance and core principles of data visualization, specifically within the context of nutrition and health.
- Develop the ability to extract, prepare, and transform raw data into a format suitable for visualization, ensuring accuracy and clarity.
- Gain proficiency in using tools like Excel, Google Sheets, and specialized software to create a variety of visualizations, from basic charts to advanced interactive visuals.
- Apply data visualization techniques effectively to nutrition-related datasets, creating compelling visuals and dashboards that communicate key insights and trends.

PRACTICAL

(Credits: 2; Hours: 60)

Introduction to Data Visualization and Exploring Nutrition and Health Data

Critical evaluation of the key principles of data visualization using the existing visualizations Exploring nutrition-related datasets for understanding different types of data, measurement scales and indicators (NFHS data, NSSO data etc)

Data Preparation and Summarization

Entering and cleaning of data: Data entry, cleaning and formatting; sorting and filtering data Transforming data using conditional formatting for removing duplicates, identifying outliers, finding the missing value, data imputation

Data visualization of univariate and bivariate data using excel, Google Sheets, and data visualization software like Tableau/ QGIS/ Power BI etc.

Creating basic charts such as bar charts, pie charts, line charts, histograms, and box plots.

Creating scatter plots, line graphs and bubble charts.

Understanding when and why to use each specific chart type

Visualizing and interpreting correlation and causality

Creating Interactive Dashboards

Critical evaluation of a nutrition dashboard

Developing of nutrition dashboard

• Case study: reviewing real-world application of data visualization in nutrition and health

Essential Readings

- 1. Cairo, A. (2019). *How Charts Lie: Getting Smarter about Visual Information*. W.W. Norton & Company.
- 2. Tufte, E.R. (2001). The Visual Display of Quantitative Information. Graphics Press.
- 3. Wilke, C.O. (2019). Fundamentals of Data Visualization: A Primer on Making Informative and Compelling Figures. O'Reilly Media.
- 4. Few, S. (2012). Show Me the Numbers: Designing Tables and Graphs to Enlighten. Analytics Press.
- 5. Manorat, R., Becker, L., & Flory, A. (2019). Global data visualization tools to empower decision-making in nutrition. Sight and Life, 33(1), 108-114.
- 6. Stephen R. Midway. (2020) *Principles of Effective Data Visualization, Patterns*. Volume 1, Issue 9, ISSN 2666-3899, https://doi.org/10.1016/j.patter.2020.100141.
- 7. National Family Health Surveys, URL- https://www.nfhsiips.in/nfhsuser/index.php

Suggested Readings

- 1. Healy, K. (2018). Data Visualization: A Practical Introduction. Princeton University Press.
- 2. Murray, D. (2016). *Tableau Your Data: Fast and Easy Visual Analysis with Tableau Software*. Wilev.
- 3. Wickham, H. (2016). ggplot2: Elegant Graphics for Data Analysis. Springer.
- 4. Jones, B. (2023). Python Data Visualization Cookbook. Packt Publishing.

5. Monmonier, M. (1996). How to Lie with Maps. University of Chicago Press.

SKILL BASED COURSE SBC FN 202 INTELLECTUAL PROPERTY RIGHTS

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
Code		Lecture	Tutorial	Practical		(if any)
SBC FN 202 Intellectual Property Rights	2	1	0	1		Nil

Learning Objectives

- To provide an understanding of Intellectual Property Rights (IPR) and their relevance in food and nutrition.
- To familiarize students with various types of IPR, including patents, trademarks, geographical indications, and copyrights.
- To understand the role of IPR in food innovation, research, and public health.
- To equip students with knowledge of national and international frameworks governing IPR in the food sector.
- To develop practical skills in patent searching, trademark registration, and case studies on IPR application.

Learning Outcomes

The students would be able to:

- Understand the significance and scope of IPR in food and nutrition.
- Describe different forms of IPR and their application in the food industry.
- Explain legal frameworks, policies, and ethical considerations related to IPR.
- Gain practical knowledge of patent filing, licensing, and commercialization of food products.

THEORY (Credits 1; Hours 15)

UNIT I: Fundamentals of Intellectual Property Rights

(7 Hours)

- Definition, history, and importance of IPR in food and nutrition.
- Types of intellectual property: patents, trademarks, copyrights, geographical indications, and trade secrets.
- International agreements related to IPR (WTO, TRIPS, WIPO, etc.).
- Legal and regulatory frameworks for IPR in India.
- Patentability criteria for food and nutrition-related innovations.
- Trademark registration and protection for food products and brands.

UNIT II: Application and Ethical Considerations of IPR in Food Industry (8 Hours)

- Importance of geographical indications (GI) for traditional and indigenous food products.
- GI registration process in India and case studies.
- Role of copyrights in food product labeling, marketing, and recipe documentation.
- Ethical issues and consumer protection related to IPR in food.
- IPR's role in food safety regulations (FSSAI, Codex Alimentarius, etc.).
- Protection of functional foods, nutraceuticals, and novel food products under IPR.

PRACTICAL (Credits 1; Hours 30)

1. Patent Search and Analysis

- Conducting a patent search on a food-related product.
- Analyzing existing patents and their applications in the food sector.

2. Trademark Registration Process

- Understanding trademark application and filing procedures.
- Case study on a well-known food brand's trademark protection.

3. Geographical Indication Case Study

• Researching and preparing a report on a registered GI product in India.

4. Copyright and Ethical Considerations

- Preparing a food label with copyright compliance.
- Ethical considerations in recipe documentation and marketing.

5. IPR in Food Commercialization

- Understanding licensing and technology transfer.
- Group discussion on the future trends of IPR in food and nutrition.

6. Case Study on Patent Filing

• Drafting a mock patent application for a food innovation.

7. Technology Transfer & Licensing Simulation

• Understanding the steps in commercializing food innovations through licensing agreements.

8. Consumer Protection and IPR

- Identifying misleading claims and IPR violations in food advertisements.
- Exploring legal measures for consumer rights in the food industry.

Essential Readings

- Ganguli, P. (2001). *Intellectual Property Rights: Unleashing the Knowledge Economy*. Tata McGraw-Hill.
- Dutfield, G., & Suthersanen, U. (2008). *Global Intellectual Property Law*. Edward Elgar Publishing.
- Das, K. (2009). Protection of Geographical Indications: An Overview of Select Issues with Special Reference to India. Centre for Trade and Development.
- Watal, J. (2001). *Intellectual Property Rights in the WTO and Developing Countries*. Oxford University Press.
- Subbaram, N. R. (2002). *Patent Law: Practices and Procedures*. S. Chand & Company.

Suggested Readings

- Correa, C. M. (2007). Trade Related Aspects of Intellectual Property Rights: A Commentary on the TRIPS Agreement. Oxford University Press.
- Chandra, R. (2010). *Intellectual Property Rights: Law and Practice*. Cengage Learning.
- FSSAI Guidelines and Codex Alimentarius on Food Safety and IPR Regulations.

GENERAL ELECTIVE COURSE 01 LIFESTYLE MODIFICATIONS FOR OPTIMAL HEALTH

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title	Credits	Credit Distribution of the Course			Eligibility Criteria	Pre-requisite of the Course
Code		Lecture	Tutorial	Practical		(if any)
GE 01 Lifestyle Modifications for Optimal Health	4	3	1	0	Nil	Nil

Learning Objectives

- To understand the role of lifestyle modification for healthy lifestyle.
- To understand the importance of Nutrition and behaviour change in health and disease reversal.
- To comprehend the role of physical activity in maintaining fitness and health.
- To learn about the association of diet with mental well-being.

Learning Outcomes

The students would be able to:

- Make healthy food choices for themselves and their families.
- Describe the benefits of regular exercise and adequate sleep.
- Explain the relationship between good nutrition and mental health.
- Modify their lifestyle and inculcate habits which promote good health.

THEORY

(Credits 3; Hours 45)

UNIT I: Introduction to Lifestyle Modification, Nutrition and Health

23 Hours

This unit focuses on the concept and components of lifestyle modification; components of a healthy diet; and the relationship of nutrition with health and disease.

- Six pillars of lifestyle modification
- Evidence for lifestyle modification
- Decoding food labels and related nutritional information

- Defining important terminologies used in the study of food and nutrition
- Components of a healthy diet: macronutrients, micronutrients, phytonutrients, dietary fiber &water
- Food intake patterns, deficiency and excess of nutrients in diets
- Food labels and health impact of ingredients
- Key messages of Global and Indian Dietary guidelines
- Health impact of prominent dietary patterns; plant and non plant based diets
- Level of food processing and its impact on health
- Indian scenario with respect to prevalence of diet-related non-communicable diseases
- Disease based lifestyle approach; Obesity, cardiovascular diseases and diabetes mellitus and evidence-based dietary guidance for health improvement

UNIT II: Physical Activity for a Healthy Lifestyle

10 Hours

This unit highlights the importance of regular physical activity for fitness and good health.

- Introduction and definition of physical activity and exercise
- Understanding physical activity, inactivity and sedentary behaviour
- Types of physical activity
- Benefits of physical activity and physical activity guidelines
- Exercise recommendations during the life span

UNIT III: Good Health and Mental Wellbeing

08 Hours

This unit deals with the importance of paying attention to diet, stress levels and physical activity for better mental well-being.

- Sleep; physiology and its role in health and disease, sleep hygiene and promotion of restorative sleep; understanding risk patterns for common sleep disturbances, Obstructive Sleep Apnea (OSA), chronic insomnia.
- Stress; Types of stress, and stressors; stress, anxiety and depression, strategies for enhancing mental well-being and disease prevention; Mindfulness-based stress reduction and stress management strategies; Role of diet and mental well-being; Perceived Body image and its relation to eating disorders
- Substance abuse and health; Understanding health effects of tobacco, alcohol and substance abuse; Evidence based cessation strategies; Digital de-addiction
- Social connections, positive psychology and mental well-being to inculcate better lifestyle habits

UNIT IV: Stress and Mental Wellbeing

04 Hours

This unit deals with the importance of paying attention to stress levels for better mental well-being.

• Stress; Types of stress, and stressors; stress, anxiety and depression, strategies for enhancing mental well-being and disease prevention; Mindfulness-based stress

TUTORIAL (Credits 1; Hours 15)

- 1. Group Activity on making modifications in diets to improve diet quality
 - Listing of foods which are unhealthy in daily diets and suggesting healthy replacements
 - Read labels to compare nutritional profile of similar foods to understand which is a healthier choice
 - Planning recipes which are low in fat, salt/sugar.
 - Mapping diet diversity
- 2. Field work on Physical examinations and assessments to understand a person's health status
 - Anthropometric assessments; BMI strengths and limitations, waist circumference, percent body fat; ranges of percent body fat in males and females normal and in obese.
 - Pulse
 - Blood pressure understanding the guidelines for the prevention, detection, evaluation and management of High blood pressure
- 3. Problem solving activity: Making modifications in physical activity levels for healthier lifestyle for the population assessed
 - Assessment of level of physical activity-using physical activity vital sign PAVS questionnaire
 - Listing ways to incorporate exercise in busy lifestyles
- 4. Behavior change activity for mental wellbeing
 - Measuring stress levels using Patient health questionnaire -2, Perceived stress scale-10 item
 - Discussing methods of stress relief
 - Global sleep assessment questionnaire and STOP-BANG questionnaire

Essential Readings

- Chadha R and Mathur P (eds). Nutrition: A Lifecycle Approach. Orient Blackswan, Delhi. 2015
- Indian Council of Medical Research. (2024, May 7). *Dietary guidelines for Indians*. National Institute of Nutrition. https://www.nin.res.in/dietaryguidelines/pdfjs/locale/DGI07052024P.pdf
- Chowdhary S.R and Aeri B.T. (2023) Textbook of Food Science and Nutrition. Aarahan Publishers. ISBN:978-93-87270-08-4 https://amzn.eu/d/blLz8S8
- Ganong W.F (2005) Review of Medical Physiology. 22nd ed. McGraw Hill
- Jeni Shull & Clayton Jonathon Bonnent (2023) Board review manual 4th edition, American College of lifestyle medicine

• West J.B (1996) *Physiological Basis of Medical Practice*. 12th ed. B. I. Waverly Pvt. Ltd.

Suggested Readings

- Mukherjee, K.L and Chakravarthy A (2017) *Medical Laboratory Technology Procedure Manual for Routine Diagnostic Tests.* 3rd ed. Vol. I. Tata Mc Graw–Hill Publishing Company Limited (New Delhi). ISBN:9789352606801, 9352606809
- Mukherjee, K.L and Chakravarthy A (2017) *Medical Laboratory Technology Procedure Manual for Routine Diagnostic Tests.* 3rd ed. Vol. II. Tata Mc Graw–Hill Publishing Company Limited (New Delhi). ISBN:9789352606818
- Jain A. K (2019) *Human Physiology for BDS*. 6th ed. Publisher: Avichal Publishing Company; ISBN: 9788177394337