DEPARTMENT OF HOME SCIENCE

Category I

B.Sc. (Hons.) Home Science

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE DISCIPLINE SPECIFIC CORE COURSE – 4 (DSC HS 204): FASHION STUDIES COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
FASHION STUDIES DSC HS 204	4	3	0	1	12th Pass	NIL

Learning Objectives

1. To understand the basics of fashion and the fashion industry.
2. To impart knowledge about functions and theories of clothing.
3. To develop sensitivity towards selection of garments and garment design.

Learning Outcomes

The student will be able to:

1. Identify the role and functions of clothing and recognize the factors affecting the selection and evaluation of clothing.
2. Explain the concept of fashion, its terminology, sources and factors affecting it.
3. Being aware of global fashion centres.
4. Apply the knowledge of elements and principles in design interpretation.

SYLLABUS OF DSC-4

Unit I: Clothes and us **(12 Hours)**

This unit introduces the student to key concepts of how and why people started to wear clothes, and what factors are at play in the current times for selecting clothing for the individual.

- Clothing functions and theories of origin
- Clothing terminology
- Individuality and conformity, conspicuous consumption and emulation
- Body shapes
- Selection and Evaluation of quality of ready-made garments
- Selection of clothes for self

Unit II: Understanding fashion (12 Hours)

This unit will deal with the basic concepts in understanding fashion, from key terms to the why and how of fashion and more contemporary knowledge of fast and slow fashions.

- Fashion cycle
- Terminology
- Theories of fashion adoption
- Sources of fashion research
- Factors favoring and retarding fashion
- Role of a Designer
- Fast Fashion: Characteristics of Fast Fashion, Fast Fashion and Consumer
- Slow Fashion: Characteristics, Slow Fashion as a process, importance of changing from fast to slow fashion

Unit III: Design in Garments **(09 Hours)**

This unit orients the student from a design perspective in garments; the various elements that comprise a garment and the various principles that govern and guide in developing a good design.

- Structural and Decorative Design
- Elements of Design
- Principles of Design

Unit IV: Fashion **(12 Hours)**

This unit will apprise the student on the forecasting process for fashions, functioning of the industry and various garment categories for production.

- Structure and Functioning of Fashion Industry
- Forecasting: Fashion seasons
- Garment Categories
- Fashion Centers
- Careers in Fashion

ESSENTIAL READINGS

- Brown, Patty, Rice J., 1998, *Ready to Wear Apparel Analysis*. Prentice Hall.
- Marshall S G, Jackson H O, Stanley MS, Kefgen M & Specht T, 2009, *Individuality in Clothing & Personal Appearance, 6th Edition*, Pearson Education, USA.
- Tate S.L., Edwards M.S., 1982, *The Complete Book of Fashion Design*, Harper and Row Publications, New York.
- Fringes G.S., 1994, *Fashion From Concept to Consumer, 6th edition*, Prentice Hall, New Jersey.

SUGGESTED READINGS:

- R. Andrew, 2018, Key Concepts for Fashion Industry, Bloomsbury Publishing, India

PRACTICAL
(30 Hours)

Unit I: Hand stitches **(14 Hours)**

This unit will impart hands-on skill for making small products using upcycling of used articles of clothing or home textiles and how value addition may be achieved in garments by using popular embroidery stitches.

- Prepare samples of –
- Basic hand stitches for creating a seam and edge finishing.
- Decorative Hand Stitches
- Develop an upcycled product

Unit II: Elements & Principles of Design **(16 Hours)**

This unit will train the students to identify the various elements of a design that a garment uses and the principles that are creating an aesthetic design. Eventually a student will be able to effectively use these elements and principles of design to create well designed garments.

- Create a collection of garments for analysis from print and visual media.
- Analyze the various elements that comprise the garments.
  Identify the various principles of design used in the selected garments

Essential Readings

- Fringes G.S., 1994, *Fashion From Concept to Consumer, 6th edition*, Prentice Hall, New Jersey.
- Marshall S G, Jackson H O, Stanley MS, Kefgen M & Specht T, 2009, *Individuality in Clothing & Personal Appearance, 6th Edition*, Pearson Education, USA.

Suggested Readings:

- Reader's Digest (Eds.). 2002, New Complete Guide to Sewing, (Canada) Ltd. Montreal.

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

DISCIPLINE SPECIFIC CORE COURSE – 5 (DSC HS 205): FUNDAMENTALS OF RESOURCE MAMAGEMENT

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
FUNDAMENTALS OF RESOURCE MANAGEMENT **DSC HS 205**	**4**	**3**	**0**	**1**	**12th Pass**	**NIL**

Learning Objectives

1. To enable students to understand the fundamentals of resource management in changing scenario and available resources, their uses and conservation.
2. To understand the processes of management in a scientific manner for the judicious use of resources.

Learning Outcomes

Students will be able to:

1. Comprehend the fundamentals of resource management in the changing scenario.
2. Familiarize with the available resources, their uses and conservation.
3. Utilize resources optimally in a prudent manner.
4. Understand the processes of management in a scientific manner for the use of resources.

THEORY

Unit I: Introduction to management **(12 Hours)**

Unit Description: The focus of this unit would be on understanding the concept of management, scope and approaches of management in context to changing scenario.

Subtopics:

- Concept, nature, universality and scope of management
- Theories and Approaches to management.
- Ethics in management
- Motivation in management

UNIT II: Understanding resources **(09 Hours)**

Unit Description: This unit attempts to acquaint the students with the available resources, their uses and conservation approaches.

Subtopics:

- Meaning, classification and characteristics of resources.
- Resource conservation- maximizing use of resources, factors
- affecting utilization of resources.
- Family life cycle in context to resource use: Time, energy, money.

Unit III: Functions of management: An overview **(12 Hours)**

Unit Description: This unit will orient the students in understanding the functions and processes of management in a scientific manner for the optimization of resources.

- Decision Making: Concept, significance and steps involved in decision-making process.
- Planning: Nature and characteristics, classification of plans & steps in planning.
- Organizing: Concept, significance and steps involved in organizing process.
- Supervision: Types of supervision (directing & guiding), factors of effective supervision.
- Controlling: Types of control, steps in controlling, requirements of effective control.
- Evaluation: Types and steps of evaluation.

Unit IV: Management of time and energy resources **(12 Hours)**

This unit will familiarize students with effective management of time and energy resources and their functional use in day-to-day life.

- Time Management: Concept, tools of time management, types of time plans, steps in making a time plan.
- Energy Management: Concept, principles of body mechanics, types of fatigue.
- Work Simplification: Techniques, Classes of Change.

PRACTICAL -30 Hours

Unit I: Identification and Development of managerial competencies **(14 Hours)**

Activities:

- Micro Lab and Who am I
- SWOC analysis
  - Self
  - Case studies: Individuals
  - Case studies: Organizations
- Building Decision making abilities
- Team building management games
- Decision Making: Case Analysis

Unit II: Management of Time and Energy **(16 Hours)**

Activities:

- Time Management:
  - Evaluation of time plans through case analysis:
    - Case Study-1
    - Case Study-2
  - Analysis of time use pattern of self
    - Preparation and evaluation of time plans
- Work improvement using time and motion study techniques
  - pathway chart or travel chart / process chart - observe, record, and analyze an activity.
  - pathway chart or travel chart / process chart - observe, record, and analyze an activity with improvement.

Essential Readings

- Combe, C. (2014). *Introduction to management.* Oxford University Press.
- Drucker, P. F. (2007). *Management: Tasks, responsibilities, practices.* Transaction Pub, ISBN-13: 978-0750643894.
- Goel, S. Ed. (2016). *Management of resources for sustainable development.* New Delhi: Orient Blackswan Pvt. Ltd, ISBN: 9788125063490, 9788125063490.
- Griffin, R. W. (2013). *Management: Principles and practices (11th ed.)*. South-Western Cengage Learning, ISBN: 9788131530917, 8131530914.
- Hill, C. W., & Stevenane. (2006). *Principles of management (1st ed.).* McGraw-Hill/Irwin. ISBN: 9780073530123.
- Koontz, H., & O' Donnel, C. (2005). *Management: A systems and contingency analysis of managerial functions.* New York: McGraw-Hill Book Company, ISBN-13: 978-0070853775.
- Moore, T. J. (2021). *Family resource management* (4th ed.). ISBN-13: 978-1544370620.
- Rao, V.S.P. (2008). *Principles & practice of management*. Konark Publishers Pvt. Ltd, ISBN-13: 978-8122000283.

For Practicals

- Goel, S. Ed. (2016). *Management of resources for sustainable development.* New Delhi: Orient Blackswan Pvt. Ltd, ISBN: 9788125063490, 9788125063490.
- Arora, R., Magu, P., Singh, P., Meghna, Gupta, S. (2013). *Resource Management: An Introductory Manual.* R. Gangadharan of Elite Publishing House Pvt. Ltd., Daryaganj, ISBN No: 978-81-88-901-50-0.
- Drucker, P. F. (2007). *Management: Tasks, responsibilities, practices.* Transaction Pub, ISBN-13: 978-0750643894

Suggested Readings:

- Jyoti, A. (2009). *Principles of management*. Gennext Publication. ISBN-13: 9789380222127.
- Kreitner, R. (2009). *Management*. Canada: Houghton Miffin Harcourt Publishing Company.
- Nickel, D. (2002). *Management in family living,* 4e (4th ed.), ISBN-13: 978-8123908519.
- Robbin, S.P. (2009). *Fundamentals of management,* 11th edition, Pearson Education.
- Steidl, R. & Bratton, E. (1968). *Work in the Home.* USA: John Wiley & Sons, Inc, ISBN-13: 9780471820857.

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

DISCIPLINE SPECIFIC CORE COURSE – 6 (DSC HS 206): LIFE SCIENCE FOR HOME SCIENCE

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
LIFE SCIENCE FOR HOME SCIENCE **DSC HS 206**	**4**	**2**	**0**	**2**	**12th Pass**	**NIL**

Learning Objectives

- To impart the basic knowledge of animal diversity, plant diversity and its significance for human life.
- To make students aware of the fundamental process of plant growth and its regulation.
- To enable students to learn about methods of sustainable agriculture, plant conservation and propagation.
- To make students aware of immunology, genetics and biotechnology.

Learning Outcomes

- The students would be able to identify and appreciate some common plant and animal diversity in their vicinity.
- The students would understand the fundamentals of genetics and its significance in human life.
- The students would gain hands-on experience and training on gardening and plant propagation techniques along with the artificial methods of vegetative propagation.
- The students would acquire the basic knowledge of biotechnology along with recent trends and its applications in agriculture, animal husbandry and human welfare and associated ethical and social issues.
- The students would acquire knowledge about various zoonotic diseases, pandemics and learn about its control and management.
- The students would understand the importance prenatal screening and natal health.

THEORY

Section A – Botany

Unit I: Introduction to Plant Kingdom (08 Hours)

Plant kingdom, plant growth and regulation, Economically Important Plants

- Introduction to Plant Diversity
- Economic importance of Microbes (Industrial &Household Products, Sewage treatment, Biogas production, Biocontrol agents, Bio-fertilizers)
- Angiosperm plants: Morphology (Parts of plants with modifications and Life cycle)
- Plant Nutrition and Soil: Essential Elements and Functions, Nutrient cycles, Human Impact on nutrient cycles and effects of pollution
- Plant growth and Development- Regulation and control (Hormones)
- Enzymes: principles and biotechnological applications
- Introduction to Economically important plants: Food Crops, Fibre Crops, Medicinal Plants, Oil Crops, Timber Plants

Unit II: Propagation, Gardening and Conservation of Plants (06 Hours)

Plant propagation methods, Sustainable Agriculture, Biotechnology in Agriculture

- Seed Propagation
- Vegetative Propagation: Cuttings – stem leaf and root, Layering, Grafting, Tissue Culture
- Gardening: Concept and Types with example of Kitchen Garden, Green Roofs, Maintenance of plants
- Sustainable Agriculture: Concept of Organic farming, IPM, Biopesticides, Climate smart agriculture, Seed bank, Urban Agriculture
- Concept of Sustainable development with Sustainability Indicators
- Role of Plants in Air Pollution Control
- Principles and Applications of biotechnology in agricultural crops

Section B – Zoology

Unit III: Animal Diversity and Human Needs (08 Hours)

Animal diversity and its importance to humans

- Types, Structure and Function of Animal Cell and its components (Chromosomes and Nucleus)
- Animal diversity and its distribution
- Animals and their ecosystem services: role of animals in soil health, pollination, biological control of pests, food security
- Threatened species of animals and their conservation
- Zoonotic and Parasitic diseases- Life cycle, pathogenesis and control. (*Plasmodium*, *Giardia*, *Entamoeba*, *Taenia*, *Ascaris, Covid-19, malaria, tuberculosis*)
- Animals as economic resources: sericulture, apiculture, aquaponics (concept and applications)

Unit IV: Immunity, Genetics and Biotechnology (08 Hours)

Basics of human immunity, Pandemics, genetic diseases, application of biotechnology, developmental biology

- Basics of Human Immunity: introduction to humoral and cell mediated immunity; Vaccination
- Introduction to Pandemics and its management
- Genetic diseases and importance of Genetic counselling
- Birth defects and its causes (genetic and environmental factors)
- Application of biotechnology: Stem cells, cloning and animal improvements

PRACTICAL – 60 Hours

SECTION A- BOTANY

1. Preparation of soil mixture, potting and re-potting
2. Raising of healthy seedlings in a nursery bed
3. Assessment of soil quality: determination of soil pH, test for nitrates, nitrites
4. Propagation of plants through stem cutting, air layering and underground layering
5. Propagation of plants by approach grafting and veneer grafting
6. Identification and classification of economically important Food crops, Medicinal plants
7. Identification and classification of economically important plants: Fibre crops, Timber plants and Oil crops
8. Identification, Care and maintenance of important plants in controlling air pollution
9. A visit to Home Garden/ Organic farm/ Tissue culture Lab
10. Demonstration of Urban Home Gardens/ Kitchen Garden / Nutrition Garden
11. Study of techniques of biotechnology through audio visual aids

SECTION B- ZOOLOGY

1. Study of cell Structure through temporary slides: Blood Cells
2. Study of cell Structure through temporary slides: Neurons
3. Study of cell cycle stages through permanent slides: Mitosis
4. Study of cell cycle stages through permanent slides: Meiosis
5. Identification of few common animals and birds in the human environment
6. Estimation of species richness and abundance of animal/ birds in the human environment using point count method
7. Estimation of species richness and abundance of animal/ birds in the human environment using transect method
8. Soil biomonitoring using Burlese-Tullgren method: concept and importance of micro and macrofauna in soil health
9. Detection of chromosomal abnormalities: concepts and interpretation of diagnostic tests: Karyotyping
10. Detection of chromosomal abnormalities: concepts and interpretation of diagnostic tests: Dual marker test
11. Visit to any one of the following: Aquaponic facility/organic farm/ bee farm
12. Case study of a zoonotic/ parasitic disease: COVID-19 pandemics/ bird flu

Essential Readings

- Jordan E. L. and Verma P. S., 2009. Invertebrate Zoology, S. Chand and Co. Ltd, New Delhi.
- Park K., 2016. Textbook of preventive and social medicine. Banarsidas Bhanot Publishers.
- Raven P. and Johnson G., 2010. Biology. Tata McGraw Hill Publication, New Delhi.
- Singh J. S, Singh S. P. and Gupta S. R., 2017. Ecology, Environment Science and Resource Conservation. S. Chand (G/L) & Company Ltd, India.
- Soni N. K. and Soni V., 2010. Fundamentals of Botany. Tata McGraw Hill Publication, New Delhi.

Suggested Readings

- Chadha K. L.2012. Handbook of Horticulture. ICAR Publication, New Delhi.
- Gopalaswamiianger K.S. 1991. Complete gardening in India, Messers Nagaraj and Co., Madras.
- Gupta R. 2015. Fundamentals of Zoology: Theory and Practice. Elite Publishing House Pvt. Ltd., New Delhi.
- Hartman H.T and Kester D. 1986. Plant Propagation: Principles and Practices Prentice Hall of India Pvt. Ltd., New Delhi.
- Kotpal R. L. 2000. Modern Textbook of Zoology, Rastogi Publications, Meerut.
- Magurran, A. E. 1988. Ecological Diversity and Measurement. Croom Helm Limited, Australia.
- Upadhyay R. 2017. Elements of Plant Science, Elite Publishing House, New Delhi.

Vij, U. and Gupta, R. 2011. Applied Zoology Phoenix Publishing House, New Delhi

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