UNIVERSITY OF DELHI

Department of Home Science

B.A. (Prog.) with Nutrition and Health Education (NHE)

(SEMESTER - I)

based on

Undergraduate Curriculum Framework 2022 (UGCF)

(Effective from Academic Year 2022-23)

University of Delhi

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Department of Home Science
Semester – I

B.A (Prog.) with Nutrition and Health Education (NHE)

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B.A (Prog.) with Nutrition and Health Education (NHE) as Major

Category-II

DISCIPLINE SPECIFIC CORE COURSE – DSC-1-NHE: FUNDAMENTALS OF NUTRITION

Credit distribution, Eligibility and Pre-requisites of the Course

Course Title& Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical/ Practice		
Fundamentals of Nutrition	4	3	1	-	Class XII Pass	NIL

Learning Objectives:

1. To familiarize students with fundamentals of nutrition and their relation to health.

2. To study the functions, dietary sources and clinical manifestations of deficiency or excess of nutrients.
3. To create awareness about enhancing nutritional quality of food.

LearningOutcomes:

After completion ofthe course,the studentswillbe ableto:

1. Understandbasic concepts in nutrition and interpret relation between food, nutrition and health.
2. Describe functions, dietary sources and clinical manifestations of deficiency or excess of important nutrients.
3. Understand healthy cooking practices and minimizing nutrient losses.
4. Describe various methods of enhancing nutritional quality of food.

SYLLABUS OF DSC-1

Theory:

Unit1:Basic Concepts in Nutrition (7Hours)

- *Unit Description***:** This unit will introduce the basic terms in nutrition
- *Subtopics:*
    - Basic terms used in study of nutrition – food, health, nutrients, nutritional status, malnutrition.
    - Macronutrients, micronutrients, nutraceuticals, phytochemicals, antioxidants and balanced diet.
    - Understanding relationship between food, nutrition and health.

Unit2:Energy, Macronutrients and Water (13Hours)

- *Unit Description:*This unit will introduce the students to energy components, macronutrients and water.
- *Subtopics:*
    - Energy- Components of energy expenditure and factors affecting energy requirement.
    - Classification, functions, dietary sources and clinical manifestations of deficiency/excess of the following:
        - Carbohydrates including dietary fibre.
        - Dietary fat and fatty acids; introduction to lipoproteins (LDL & HDL)
        - Protein including protein quality

Unit3:Micronutrients (18Hours)

- *Unit Description:*This unit will introduce the various vitamins and minerals present in foods.
- *Subtopics:*
    - Functions, dietary sources and clinical manifestations of deficiency /excess of the following:
        - Fat soluble vitamins – A, D, E and K.

- Water soluble vitamins – thiamine, riboflavin, niacin, pyridoxine, folic acid, vitamin B_{12} and vitamin C.
- Minerals – calcium, iron, iodine, zinc, sodium and potassium.

Unit4:Enhancing Nutritional Quality of Food (7Hours)

- *Unit Description*: This unit will explain ways to minimize nutrient losses and enhance nutritional quality of food
- *Subtopics:*
  - Minimizing nutrient losses during food preparation.
  - Enhancing nutritional quality by supplementation, germination, fermentation and fortification.

Essential/recommended readings:

1. Rekhi, T., & Yadav, H. (2015). *Fundamentals of Food and Nutrition.* Delhi: Elite Publishing House Pvt. Ltd.
2. Mudambi, S. R., & Rajagopal M. V. (2012). *Fundamentals of food, nutrition and diet therapy*; (6th ed.). Delhi: New Age International (P) Ltd.
3. Sethi, P., & Lakra, P. (2015). *Aahar Vigyan, Poshan Evam Suraksha*. Delhi: Elite Publishing House Pvt. Ltd.
4. Chadha, R., & Mathur, P. (2015). *Nutrition: A life cycle approach*. Delhi: Orient Blackswan.
5. Srilakshmi, B. (2018). *Food science* (7th ed.) Delhi: New Age International (P) Ltd.

Suggested readings:

1. Roday, S. (2013). *Food science and nutrition*. (2nd ed.). Oxford University Press.
2. Wardlow, G. M., &Hampl, J. S. (2019). *Perspectives in nutrition.* (11th ed.). New York, NY: McGraw Hill.
3. Agarwal, A., &Udipi. S. (2014). *Textbook of human nutrition*, Jaypee Brothers Medical Publishers (P) Ltd, New Delhi.

DISCIPLINE SPECIFIC CORE COURSE – DSC-2-NHE: INTRODUCTION TO FOODS

Credit distribution, Eligibility and Pre-requisites of the Course

Course Title& Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical/ Practice		
Introduction to Foods	4	3	-	1	Class XII Pass	NIL

Learning Objectives:

1. To introduce students with the functions of food.
2. To explain the nutritional contribution, selection, changes in cooking and storage of different food groups.
3. To generate awareness about various methods of cooking.

LearningOutcomes:

After completion ofthe course,the studentswillbe ableto:

1. Understand various functions of food and factors affecting food choices.
2. Acquaint themselves to select, purchase and store food safely.
3. Describe various methods of cooking and principles underlying them.

SYLLABUS OF DSC-2

Theory:

Unit1:Basic Concepts of Food (8Hours)

- *Unit Description:*This unit will introduce the concept of food, functions of food and factors affecting food choices.
- *Subtopics:*
    - Definition of food including organic food, genetically modified foods, convenience foods, health foods.
    - Functions of food.
    - Factors affecting food choices.

Unit2:Plant Based Food Groups (15Hours)

- *Unit Description:*This unit will introduce nutritional contribution, selection, changes in cooking and storage of the plant-based food groups.
- *Subtopics:*
    - Nutritional contribution, selection, changes in cooking and storage of the following:
        - Cereal and cereal products
        - Pulses
        - Vegetable and fruits
        - Sugars
        - Oils and fats

Unit3:Animal Based Food Groups (8Hours)

- *Unit Description:*This unit will introduce nutritional contribution, selection, changes in cooking and storage of the animal-based food groups.
- *Subtopics:*
    - Nutritional contribution, selection, changes in cooking and storage of the following:
        - Milk and milk products
        - Eggs and flesh foods

Unit4:Methods of Cooking Foods (14Hours)

- *Unit Description:*This unit will introduce advantages and principles of cooking and various cooking methods.
- *Subtopics:*
    - Advantages of cooking
    - Principles of cooking
    - Preliminary steps in food preparation
    - Cooking methods:
        - Moist heat methods
        - Dry heat methods
        - Methods using fat as a medium
        - Others – microwave, solar cooking

Practical:

Unit1: Cooking methods I (16 Hours)

- *Subtopics:*
    - Cooking employing dry heat methods
    - Cooking employing moist heat methods

Unit2: Cooking methods II (14 Hours)

- *Subtopics:*
    - Cooking using frying as a cooking method
    - Cooking using microwave

Essential/recommended readings:

1. Rekhi, T., & Yadav, H. (2015). *Fundamentals of Food and Nutrition.* Delhi: Elite Publishing House Pvt. Ltd.
2. Mudambi, S. R., & Rajagopal M. V. (2012). *Fundamentals of food, nutrition and diet therapy*; (6th ed.). Delhi: New Age International (P) Ltd.
3. Sethi, P., & Lakra, P. (2015). *Aahar Vigyan, Poshan Evam Suraksha*. Delhi: Elite Publishing House Pvt. Ltd.
4. Srilakshmi, B. (2018). *Food science* (7th ed.) Delhi: New Age International (P) Ltd.
5. Raina, U., & Kashyap, S. (2010). *Basic Food Preparation – a complete manual* (4th ed.). Delhi: Orient Black Swan.

Suggested readings:

1. Roday, S. (2013). *Food science and nutrition*. (2nd ed.). Oxford University Press.
2. Wardlow, G. M., &Hampl, J. S. (2019). *Perspectives in nutrition.* (11th ed.). New York, NY: McGraw Hill.
3. Agarwal, A., &Udipi. S. (2014). *Textbook of human nutrition*, Jaypee Brothers Medical Publishers (P) Ltd, New Delhi.

4. Chadha, R., & Mathur, P. (2015). *Nutrition: A life cycle approach*. Delhi: Orient Blackswan.

B.A (Prog.) with Nutrition and Health Education (NHE) as Non-Major

Category-III

DISCIPLINE SPECIFIC CORE COURSE – DSC-2-NHE: INTRODUCTION TO FOODS

Credit distribution, Eligibility and Pre-requisites of the Course

Course Title& Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical/ Practice		
Introduction to Foods	4	3	-	1	Class XII Pass	NIL

Learning Objectives:

1. To introduce students with the functions of food.
2. To explain the nutritional contribution, selection, changes in cooking and storage of different food groups.
3. To generate awareness about various methods of cooking.

LearningOutcomes:

After completion ofthe course,the studentswillbe ableto:

1. Understand various functions of food and factors affecting food choices.
2. Acquaint themselves to select, purchase and store food safely.
3. Describe various methods of cooking and principles underlying them.

SYLLABUS OF DSC-1

Theory:

Unit1:Basic Concepts of Food (8Hours)

- *Unit Description:*This unit will introduce the concept of food, functions of food and factors affecting food choices.
- *Subtopics:*
  - Definition of food including organic food, genetically modified foods, convenience foods, health foods.
  - Functions of food.
  - Factors affecting food choices.

Unit2:Plant Based Food Groups (15Hours)

- *Unit Description:*This unit will introduce nutritional contribution, selection, changes in cooking and storage of the plant-based food groups.
- *Subtopics:*
    - Nutritional contribution, selection, changes in cooking and storage of the following:
        - Cereal and cereal products
        - Pulses
        - Vegetable and fruits
        - Sugars
        - Oils and fats

Unit3:Animal Based Food Groups (8Hours)

- *Unit Description:*This unit will introduce nutritional contribution, selection, changes in cooking and storage of the animal-based food groups.
- *Subtopics:*
    - Nutritional contribution, selection, changes in cooking and storage of the following:
        - Milk and milk products
        - Eggs and flesh foods

Unit4:Methods of Cooking Foods (14Hours)

- *Unit Description:*This unit will introduce advantages and principles of cooking and various cooking methods.
- *Subtopics:*
    - Advantages of cooking
    - Principles of cooking
    - Preliminary steps in food preparation
    - Cooking methods:
        - Moist heat methods
        - Dry heat methods
        - Methods using fat as a medium
        - Others – microwave, solar cooking

Practical:

Unit1: Cooking methods I (16 Hours)

- *Subtopics:*
    - Cooking employing dry heat methods
    - Cooking employing moist heat methods

Unit2: Cooking methods II (14 Hours)

- *Subtopics:*
    - Cooking using frying as a cooking method
    - Cooking using microwave

Essential/recommended readings:

1. Rekhi, T., & Yadav, H. (2015). *Fundamentals of Food and Nutrition.* Delhi: Elite Publishing House Pvt. Ltd.
2. Mudambi, S. R., & Rajagopal M. V. (2012). *Fundamentals of food, nutrition and diet therapy*; (6th ed.). Delhi: New Age International (P) Ltd.
3. Sethi, P., & Lakra, P. (2015). *Aahar Vigyan, Poshan Evam Suraksha*. Delhi: Elite Publishing House Pvt. Ltd.
4. Srilakshmi, B. (2018). *Food science* (7th ed.) Delhi: New Age International (P) Ltd.
5. Raina, U., & Kashyap, S. (2010). *Basic Food Preparation – a complete manual* (4th ed.). Delhi: Orient Black Swan.

Suggested readings:

1. Roday, S. (2013). *Food science and nutrition*. (2nd ed.). Oxford University Press.
2. Wardlow, G. M., &Hampl, J. S. (2019). *Perspectives in nutrition.* (11th ed.). New York, NY: McGraw Hill.
3. Agarwal, A., &Udipi. S. (2014). *Textbook of human nutrition*, Jaypee Brothers Medical Publishers (P) Ltd, New Delhi.
4. Chadha, R., & Mathur, P. (2015). *Nutrition: A life cycle approach*. Delhi: Orient Blackswan.

Semester – II

B.A (Prog.) with Nutrition and Health Education (NHE)

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2.	B.A. (Prog.) with Nutrition Health Education (NHE)**as Non-Major** **DISCIPLINE SPECIFIC CORE (DSC)** DSC-4-NHE: Dietary Goals and Guidelines for Indians	7-9

B.A (Prog.) with Nutrition and Health Education (NHE) as Major

Category-II

DISCIPLINE SPECIFIC CORE COURSE – DSC-3-NHE: DIET PLANNING THROUGH THE LIFE SPAN

Course Title& Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical/ Practice		
Diet Planning Through the Life Span	4	3	-	1	Class XII Pass	DSC-1-NHE and DSC-2-NHE

Learning Objectives:

1. To introduce students to the basic concepts of meal planning.
2. To equip them with knowledge of physiological changes, nutritional requirements, nutritional concerns and healthy food choices during the life cycle.

LearningOutcomes:

After completion of the course,the studentswillbe ableto:

1. Describe physiological changes and nutritional requirements across the lifespan.
2. Understand the factors affecting meal planning.
3. Understand the importance of food exchange list and use them for meal planning.
4. Plan and prepare balanced meals and nutritious snacks for various age groups.

SYLLABUS OF DSC-3

Theory:

Unit1:Nutrient Requirements and Recommendations (5 Hours)

- *Unit Description***:** This unit will introduce the concept of dietary reference intake.

- *Subtopics:*
  - Nutrient requirement - concept and background
  - Dietary reference intake
  - EAR and RDA
  - Reference man and reference woman

Unit2:Fundamentals of Menu Planning (6 Hours)

- *Unit Description:*This unit will introduce essential requirements for planning of meals.
- *Subtopics:*
  - Introduction and use of food exchange list
  - Concept and importance of meal planning
  - Factors affecting meal planning

Unit3:Nutrition during Childhood (16 Hours)

- *Unit Description:*This unit will introduce nutritional requirement, physiological changes, nutritional concerns and healthy eating practices during childhood.
- *Subtopics:*
    - Infancy
    - Preschoolers
    - School- going children
    - Adolescents

Unit4:Nutrition during Adulthood and Old Age (18 Hours)

- *Unit Description*: This unit will introduce nutritional requirement, physiological changes, nutritional concerns and healthy food choices during adulthood and old age.
- *Subtopics:*
    - Adulthood
    - Pregnancy
    - Lactation
    - Old age

Practical:

Unit1:Introduction to Meal Planning (10 Hours)

- *Subtopics:*
    - Use of comprehensive food exchange list in meal planning
    - Meal distribution and menu planning
    - Nutrient calculations

Unit2:Planning and Preparation of Diets/Dishes/Snacks (20 Hours)

- *Subtopics:*
    - Infant- complementary feeding
    - Preschooler child
    - School aged child
    - Adolescent
    - Adult
    - Pregnant and lactating woman
    - Elderly

Essential/recommended readings:

1. Chadha, R., & Mathur, P. (2015). *Nutrition: A life cycle approach*. Delhi: Orient Blackswan.
2. Sethi, P., & Lakra, P. (2015). *Aahar Vigyan, Poshan Evam Suraksha*. Delhi: Elite Publishing House Pvt. Ltd.
3. Mudambi, S. R., & Rajagopal M. V. (2012). *Fundamentals of food, nutrition and diet therapy* (6th ed.). Delhi: New Age International (P) Ltd.
4. Siddhu, A., Bhatia, N., Singh, K., Gupta, S. (Eds.). (2017). *Lady Irwin CollegeTechnical series 6:Compilation of food exchange list.* Delhi: Global books organisation.
5. Puri, S. et al (2020). *Food exchange list- A tool for meal planning.* New Delhi: Elite publishing house.
6. Longvah, T. et al (2017). *Indian food composition tables.* Hyderabad, Telangana: National Institute of Nutrition.

Suggested readings:

1. Wardlow, G. M., &Hampl, J. S. (2019). *Perspectives in nutrition.* (11th ed.). New York, NY: McGraw Hill.
2. Khanna, K. et al. (2013). *Textbook of nutrition and dietetics.* Delhi: Elite Publishing house (P) Ltd.
3. Shubhangini, A., & Joshi, S. (2021). *Nutrition and Dietetics* (5th ed.). McGraw Hill Education (India) Private Limited. ISBN: 978-93-90727-82-7.
4. Edelstein, S., &Sharlin, J. (Eds). (2009). *Life cycle nutrition – an evidence based approach* Burlington, MA: Jones and Barlett Publishers.

DISCIPLINE SPECIFIC CORE COURSE – DSC-4-NHE: DIETARY GOALS AND GUIDELINES FOR INDIANS

Credit distribution, Eligibility and Pre-requisites of the Course

Course Title& Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical/ Practice		
Dietary Goals and Guidelines for Indians	4	3	1	-	Class XII Pass	NIL

Learning Objectives:

1. To introduce the concept of nutritionally adequate diets and healthy lifestyles from conception till old age.

2. To equip the students with the knowledge of dietary goals and guidelines for Indians relating to nutritional requirements, deficiency diseases and chronic diet-related disorders.

LearningOutcomes:

After completion ofthe course,the studentswillbe ableto:

1. Describe food groups, food pyramid and the concept of a balanced diet.
2. Understand the physiological changes throughout the lifespan.
3. Acquaint themselves with the dietary goals and dietary guidelines for Indians across the life cycle.

SYLLABUS OF DSC-4

Theory:

Unit1:Basic Concepts of Food (9Hours)

- *Unit Description:*This unit will introduce various food groups, concept of balanced diet, food pyramid and other aspects regarding diet.
- *Subtopics:*
  - Food groups: basic classification and nutritional contribution
  - Food pyramid
  - Balanced diet and My food plate
  - Food facts, fads and fallacies

Unit2:Dietary Guidelines I (15Hours)

- *Unit Description:*This unit will introduce basic dietary goals for healthy living and dietary guidelines.
- *Subtopics:*
  - Dietary goals
  - Guidelines to ensure nutritional adequacy and prevent deficiency diseases
  - Guidelines related to various stages of life

Unit3: Dietary Guidelines II (13Hours)

- *Unit Description:*This unit will introduce dietary guidelines to deal with health concerns and healthy food practices.
- *Subtopics:*
  - Guidelines to maintain an ideal body weight and prevent chronic diet-related disorders
  - Guidelines regarding food-related practices

Unit 4: Practical Application of Dietary Guidelines (8Hours)

- *Unit Description:*This unit will introduce practical aspects with suitable examples to attain all dietary guidelines for Indians.
- *Subtopics:*

Sample eating patterns/ menus for the following meals/ snacks:

- Breakfast
- Lunch/packed lunch
- Dinner
- Snacks

Essential/recommended readings:

1. Damyanthi, K. et al. (2011). *Dietary guidelines for Indians- A manual.*(2nd ed.) Hyderabad. National Institute of Nutrition.
2. Chadha, R., & Mathur, P. (2015). *Nutrition: A life cycle approach*. Delhi: Orient Blackswan.
3. Agarwal, A., &Udipi. S. (2014). *Textbook of human nutrition*, Jaypee Brothers Medical Publishers (P) Ltd, New Delhi.
4. Sethi, P., & Lakra, P. (2015). *Aahar Vigyan, Poshan Evam Suraksha*. Delhi: Elite Publishing House Pvt. Ltd.

Suggested readings:

1. Mudambi, S. R., & Rajagopal M. V. (2012). *Fundamentals of food, nutrition and diet therapy* (6th ed.). Delhi: New Age International (P) Ltd.
2. Wardlow, G. M., &Hampl, J. S. (2019). *Perspectives in nutrition.* (11th ed.). New York, NY: McGraw Hill.
3. Shubhangini, A., & Joshi, S. (2021). *Nutrition and Dietetics* (5th ed.). McGraw Hill Education (India) Private Limited. ISBN: 978-93-90727-82-7.
4. Khanna, K. et al. (2013). *Textbook of nutrition and dietetics.* Delhi: Elite Publishing house (P) Ltd.

B.A (Prog.) with Nutrition and Health Education (NHE) as Non-Major

Category-III

DISCIPLINE SPECIFIC CORE COURSE – DSC-4-NHE: DIETARY GOALS AND GUIDELINES FOR INDIANS

Credit distribution, Eligibility and Pre-requisites of the Course

Course Title& Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical/ Practice		
Dietary Goals and Guidelines for Indians	4	3	1	-	Class XII Pass	NIL

Learning Objectives:

1. To introduce the concept of nutritionally adequate diets and healthy lifestyles from conception till old age.
2. To equip the students with the knowledge of dietary goals and guidelines for Indians relating to nutritional requirements, deficiency diseases and chronic diet-related disorders.

LearningOutcomes:

After completion ofthe course,the studentswillbe ableto:

1. Describe food groups, food pyramid and the concept of a balanced diet.
2. Understand the physiological changes throughout the lifespan.
3. Acquaint themselves with the dietary goals and dietary guidelines for Indians across the life cycle.

SYLLABUS OF DSC-2

Theory:

Unit1:Basic Concepts of Food (9Hours)

- *Unit Description:*This unit will introduce various food groups, concept of balanced diet, food pyramid and other aspects regarding diet.
- *Subtopics:*
  - Food groups: basic classification and nutritional contribution
  - Food pyramid
  - Balanced diet and My food plate
  - Food facts, fads and fallacies

Unit2:Dietary Guidelines I (15Hours)

- *Unit Description:*This unit will introduce basic dietary goals for healthy living and dietary guidelines.
- *Subtopics:*
  - Dietary goals
  - Guidelines to ensure nutritional adequacy and prevent deficiency diseases
  - Guidelines related to various stages of life

Unit3: Dietary Guidelines II (13Hours)

- *Unit Description:*This unit will introduce dietary guidelines to deal with health concerns and healthy food practices.
- *Subtopics:*
  - Guidelines to maintain an ideal body weight and prevent chronic diet-related disorders
  - Guidelines regarding food-related practices

Unit 4: Practical Application of Dietary Guidelines (8Hours)

- *Unit Description:*This unit will introduce practical aspects with suitable examples to attain all dietary guidelines for Indians.
- *Subtopics:*
  Sample eating patterns/ menus for the following meals/ snacks:
  - Breakfast
  - Lunch/packed lunch
  - Dinner
  - Snacks

Essential/recommended readings:

1. Damyanthi, K. et al. (2011). *Dietary guidelines for Indians- A manual.* (2nd ed.) Hyderabad. National Institute of Nutrition.
2. Chadha, R., & Mathur, P. (2015). *Nutrition: A life cycle approach*. Delhi: Orient Blackswan.
3. Agarwal, A., &Udipi. S. (2014). *Textbook of human nutrition*, Jaypee Brothers Medical Publishers (P) Ltd, New Delhi.
4. Sethi, P., & Lakra, P. (2015). *Aahar Vigyan, Poshan Evam Suraksha*. Delhi: Elite Publishing House Pvt. Ltd.

Suggested readings:

1. Mudambi, S. R., & Rajagopal M. V. (2012). *Fundamentals of food, nutrition and diet therapy* (6th ed.). Delhi: New Age International (P) Ltd.
2. Wardlow, G. M., &Hampl, J. S. (2019). *Perspectives in nutrition.* (11th ed.). New York, NY: McGraw Hill.
3. Shubhangini, A., & Joshi, S. (2021). *Nutrition and Dietetics* (5th ed.). McGraw Hill Education (India) Private Limited. ISBN: 978-93-90727-82-7.
4. Khanna, K. et al. (2013). *Textbook of nutrition and dietetics.* Delhi: Elite Publishing house (P) Ltd.

Semester – III

B.A (Prog) with Nutrition and Health Education (NHE)

S. No.	Content	Page No.
1.	B.A. (Prog) with Nutrition Health Education (NHE) **as MajorDISCIPLINE SPECIFIC CORE (DSC)** DSC-5-NHE: Food Reporting and Writing DSC-6-NHE: Basics of Food Safety	2-6
2.	B.A. (Prog) with Nutrition Health Education (NHE) **as Non-Major DISCIPLINE SPECIFIC CORE (DSC)** DSC-6-NHE: Basics of Food Safety	7-8

B.A (Prog) with Nutrition and Health Education (NHE) as Major

Category-II

DISCIPLINE SPECIFIC CORE COURSE – DSC-5-NHE: FOOD REPORTING AND WRITING

CREDIT DISTRIBUTION, ELIGIBILITY AND PREREQUISITES OF THE COURSE

Course Title & Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical/ Practice		
Food Reporting and Writing	4	3	0	1	Class XII	Nil

LEARNING OBJECTIVES:

1. To introduce students to the concept and prospects of food reporting.
2. To make the students learn to creatively write their own food stories for different forms of food media.
3. To help students gain an understanding of the wide-ranging and pervasive nature of food reporting and writing.
4. To make the students understand the importance of food reporting and writing for creating a sustainable food future.

LEARNING OUTCOMES:

After completion of the course,the studentswillbe ableto:

1. Hone food reporting skills and critical analysis of different forms of food media.
2. Create original food writing appraising the sustainable essence of food.
3. Articulate how food writing and reporting can be used as a medium for attaining a sustainable food future.

SYLLABUS OF DSC-5

THEORY
(Credits 3: 45 Hours)

Unit 1: Food Reporting (10 Hours)

- *Unit Description***:** This unit will introduce the concept of food reporting, different steps involved, skills required to become a good food reporter and the future prospects of food reporting.

- *Subtopics:*
    - Concept of food reporting
    - Steps of reporting
    - Skills of a good food reporter
    - Prospects of food reporting

Unit 2: Food Writing (15 Hours)

- *Unit Description:* This unit will train the students to become a good café/restaurant critic as well as help in developing their writing skills for different forms of food media.

- *Subtopics:*
    - Guidelines to write a good food review
    - How to become a good café/restaurant critic
    - Recipe writing
    - Food writing in newspapers, magazines, social media, food blogs

Unit 3: Food Reporting and Writing on Sustainability Issues (20 Hours)

- *Unit Description:* This unit will lay emphasis on food reporting and writing on sustainablility issues for achieving nutrition security and a sustainable food future.

- *Subtopics:*

o Importance of food reporting and writing on sustainability issues
o Food writing and reporting on sustainability issues:
- Shifting to healthier and more sustainable foods/diets
- Reduce food loss and waste
- Consumption of millets for sustainable agriculture and attaining nutrition security
- Smart farming – the next green revolution
- Going green – demand for organic food
- Growing local – going global

PRACTICAL
(Credits 1: 30 Hours)

Unit 1: Food Reporting **(15 Hours)**

- *Subtopics:*
  - Interview a cook/chef
    - Critical reporting of food related information across various forms of media

Unit 2: Food Writing **(15 Hours)**

- *Subtopics:*
  - Visiting a café/restaurant and writing a review
  - Authentic ethnic food essay
  - Crafting food memoir
  - Travel related food story
  - Food blog on sustainability issues

ESSENTIAL/RECOMMENDED READINGS:

1. Jacob, D. (2010) Will Write for Food. 2nd edition. Cambridge: Da Capo Press.
2. Hughes,H. (2017) Best food writing. 1st edition. New York, NY, Da Capo Lifelong.
3. Siniauer, P. (2015) Writing about Food – a guide to good food journalism. Freie Universität Berlin Helsingin Sanomat Foundation. https://www.hssaatio.fi/wp-content/uploads/2015/07/Siniauer_WRITE-ABOUT-FOOD-a-guide-to-good-food-journalism.pdf
4. Gilbert, S. & Porter, R. (Eds). (2015). Eating Words: The Norton Anthology of Food Writing. New York: W. W. Norton & Company.

SUGGESTED READINGS:

1. Fusté-Forné, Francesc&Masip, Pere. (2019). *Food and journalism*. 10.4324/9781351123389-11.
2. Searchinger, T., Waite, R., & Hanson, C., & Ranganathan, J. (2019). World Resources Institute. World Resources Report. Creating a sustainable food future – a menu of solutions to feed nearly 10 billion people by 2050. Matthews, E (Ed.). https://research.wri.org/sites/default/files/2019-07/WRR_Food_Full_Report_0.pdf
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4. David, B., Branigin H, Beurle, C. The future of food feeding the world – the coming food revolution. Future IQ. https://future-iq.com/wp-content/uploads/2016/03/Future-iQ-Partners-Future-of-Food.pdf

DISCIPLINE SPECIFIC CORE COURSE – DSC-6-NHE: BASICS OF FOOD SAFETY

CREDIT DISTRIBUTION, ELIGIBILITY AND PREREQUISITES OF THE COURSE

Course Title & Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical/ Practice		
Basics of Food Safety	4	3	1	0	Class XII	Nil

LEARNING OBJECTIVES:

1. To introduce students to the basic concepts of food safety, hygiene, and types of microorganisms associated with food.
2. To equip them with the knowledge of food adulteration and contamination, food borne diseases, and role of microbes in food spoilage.

LEARNING OUTCOMES:

After completion of the course students will be able to:

1. Understand the important genera of microorganisms associated with food and their characteristics.
2. Explain the role of microbes in food spoilage and food borne diseases.
3. Describe food safety and hygiene, types of hazards associated with food.
4. Understand current food safety and standard regulations.

SYLLABUS OF DSC-6

THEORY
(Credits 3: 45 Hours)

Unit 1:Introduction to Food Safety **(7 Hours)**

- *Unit Description:* This unit will introduce the concept of food safety, hazards and factors affecting food safety.

- *Subtopics*
  - Definitions
  - Importance of food safety
  - Factors affecting food safety
  - Types of hazards
  - Safe-Unsafe food for consumption

Unit 2: Microorganisms in Food (16 Hours)

- *Unit Description:* This unit will introduce the important genera of microorganisms associated with food, their characteristics and factors affecting it.

- *Subtopics:*
  - Bacteria, yeast, mold and virus
  - Role of microbes in food spoilage
  - Food infection and intoxication
  - Food poisoning

Unit 3: Food Safety and Quality Assurance (12 Hours)

- *Unit Description:* This unit will introduce the food additives, adulteration and food regulations.

- *Subtopics:*
  - Food additives
  - Food adulteration
  - Nutritional labelling
  - Food safety and standard regulation
  - HACCP, GMP, GHP

Unit 4:RecentConcerns of Food Safety (10 Hours)

- *Unit Description:* This unit will introduce the emerging concerns and new challenges to food safety.

- *Subtopics:*
  - Emerging concerns for food safety
  - Street food safety
  - New challenges to food safety

ESSENTIAL/RECOMMENDED READINGS:

1. Forsythe, S J. (1987) Microbiology of Safe Food.USA: Blackwell Science, Oxford.
2. Frazier, William C. and Westhoff, Dennis C. (2004). Food Microbiology. New Delhi: TMH.
3. Garbutt, John. (1997). Essentials of Food Microbiology. London: Arnold.
4. Jay, James M. (2000). Modern Food Microbiology. New Delhi: CBS Publication.
5. Mathur, P. (2018). Food Safety and Quality Control. Hyderabad: Orient Black Swan Pvt. Ltd.
6. Sethi, P., & Lakra P. (2015). AahaarVigyaan, PoshanevamSuruksha, Elite Publishing House.
7. Suri, S., & Malhotra A. (2014). Food Science, Nutrition and Safety. Delhi: Pearson.

SUGGESTED READINGS:

1. De Vries. (1997). Food Safety and Toxicity. New York: CRC.
2. Lawley, R., Curtis L. & Davis, J. (2004). The Food Safety Hazard Guidebook. RSC

3. Publishing.
4. Marriott, Norman G. (1985). Principles of Food Sanitation. New York: AVI.
5. Pelczar, M.J., Chan E.C.S & Krieg, Noel. R. (1993) Microbiology, 5th Ed. New Delhi: TMH.

B.A(Prog) withNutritionandHealthEducation(NHE) as Non-Major

Category-III

DISCIPLINE SPECIFIC CORE COURSE – DSC-6-NHE: BASICS OF FOOD SAFETY

CREDIT DISTRIBUTION, ELIGIBILITY AND PREREQUISITES OF THE COURSE

Course Title & Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical/ Practice		
Basics of Food Safety	4	3	1	0	Class XII	Nil

LEARNING OBJECTIVES:

1. To introduce students to the basic concepts of food safety, hygiene, and types of microorganisms associated with food.
2. To equip them with the knowledge of food adulteration and contamination, food borne diseases, and role of microbes in food spoilage.

LEARNING OUTCOMES:

After completion of the course students will be able to:

1. Understand the important genera of microorganisms associated with food and their characteristics.
2. Explain the role of microbes in food spoilage and food borne diseases.
3. Describe food safety and hygiene, types of hazards associated with food.
4. Understand current food safety and standard regulations.

SYLLABUS OF DSC-6

THEORY
(Credits 3: 45 Hours)

Unit 1:Introduction to Food Safety **(7 Hours)**

- *Unit Description:* This unit will introduce the concept of food safety, hazards and factors affecting food safety.

- *Subtopics:*
  - Definitions
  - Importance of food safety
  - Factors affecting food safety
  - Types of hazards
  - Safe-Unsafe food for consumption

Unit 2: Microorganisms in Food (16 Hours)

- *Unit Description:* This unit will introduce the important genera of microorganisms associated with food, their characteristics and factors affecting it.

- *Subtopics:*
  - Bacteria, yeast, mold and virus
  - Role of microbes in food spoilage
  - Food infection and intoxication
  - Food poisoning

Unit 3: Food Safety and Quality Assurance (12 Hours)

- *Unit Description:* This unit will introduce the food additives, adulteration and food regulations.

- *Subtopics:*
  - Food additives
  - Food adulteration
  - Nutritional labelling
  - Food safety and standard regulation
  - HACCP, GMP, GHP

Unit 4:RecentConcerns of Food Safety (10 Hours)

- *Unit Description:* This unit will introduce the emerging concerns and new challenges to food safety.

- *Subtopics:*
  - Emerging concerns for food safety
  - Street food safety
  - New challenges to food safety

ESSENTIAL/RECOMMENDED READINGS:

1. Forsythe, S J. (1987) Microbiology of Safe Food.USA: Blackwell Science, Oxford.
2. Frazier, William C. and Westhoff, Dennis C. (2004). Food Microbiology. New Delhi: TMH.
3. Garbutt, John. (1997). Essentials of Food Microbiology. London: Arnold.
4. Jay, James M. (2000). Modern Food Microbiology. New Delhi: CBS Publication.
5. Mathur, P. (2018). Food Safety and Quality Control. Hyderabad: Orient Black Swan Pvt. Ltd.
6. Sethi, P., & Lakra, P. (2015). AahaarVigyaan, PoshanevamSuruksha, Elite Publishing House.
7. Suri, S., & Malhotra A. (2014). Food Science, Nutrition and Safety. Delhi: Pearson.

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1. De Vries. (1997). Food Safety and Toxicity. New York: CRC.
2. Lawley, R., Curtis L. & Davis, J. (2004). The Food Safety Hazard Guidebook. RSC
3. Publishing.
4. Marriott, Norman G. (1985). Principles of Food Sanitation. New York: AVI.
5. Pelczar, M.J., Chan E.C.S & Krieg, Noel. R. (1993) Microbiology, 5th Ed. New Delhi: TMH.