SCHOOL OF APPLIED HUMAN SCIENCES
KENYATTA UNIVERSITY

DEPARTMENT OF FOOD, NUTRITION AND DIETETICS

DIPLOMA IN FOOD, NUTRITION AND DIETETICS

AUGUST 2014
DIPLOMA IN FOOD, NUTRITION AND DIETETICS

1. **PREAMBLE**
In Sub-Saharan Africa, disease and malnutrition are high and there is need for feasible and effective intervention programmes. In view of this, the government in its policy framework has recognized the role of health and nutrition in the well being of the population and incorporated them into its development programmes. Nutrition and health has therefore become a very important aspect of development, necessitating the training of professionals in the field of nutrition.

2. **RATIONALE**
The emerging nutrition and health problems pose a need to offer specialized training in the area of nutrition and health in order to offer appropriate advice and services. Currently, Sub-Saharan Africa needs more trained expertise in this area to serve the diversified public health and nutritional needs and, therefore, the need for this programme. Through teaching, research and service the department will train manpower that has the capacity to deal with emerging nutrition and health demands and hence bridge the existing programmes militating against optimal nutrition and health.

3. **VISION**
To train highly qualified professionals in field of Food, Nutrition and Dietetics for improved livelihoods.

4. **MISSION**
The mission of the programme is to provide qualified professionals in the area of Food, Nutrition and Dietetics through teaching, research and community outreach.

5. **OBJECTIVES**
The objectives of the programme are to:

1. Train students in planning, implementation and evaluation of Food, Nutrition and Dietetics related programmes with emphasis in emergency situations
2. Equip students with knowledge and skills on nutrition assessment and diagnosis to make appropriate recommendations for intervention.
3. Enable the students recognize importance of collaboration with stakeholders in nutrition related programmes such as government ministries and non-governmental organizations.
4. Offer training that serves as a foundation for further studies and research.
5. Offer training that equip students with innovative and entrepreneurial skills in area of food, nutrition and dietetics.

6. **ENTRY REQUIREMENTS**
6.1 Candidate must satisfy the minimum entry requirement for Kenyatta University for diploma courses of mean KCSE grade C
6.2 In addition candidates must have a grade of C in English, Biology/ Biological Sciences and Chemistry/ Physical sciences and C- in any of the following subjects Physics, Mathematics, Home Science or Agriculture
6.3 A mean grade C- with a certificate in Nutrition and Dietetics from a Kenya Nutritionists and Dieticians Institute (KNDI) recognized institution, and must be registered by KNDI or by equivalent bodies for international students.

7. **DIPLOMA STRUCTURE**

   7.1 The Department of Food, Nutrition and Dietetics shall offer Diploma in Food, Nutrition and Dietetics in line with Kenya Nutritionists and Dieticians Institute.

   7.2 In order to graduate with a Diploma in Food Nutrition and Dietetics, the candidate must have done and passed 42 core units including practicum. First Level 14 units, Second Level 14 units and Third Level 14 units. The student should study a minimum of 2970 hours. A theory unit will consist of 15 weeks, 3 hours per week, 45 hours in total per semester. A practical unit will be 5 hours a week, 72 hours in total per semester.

   7.3 The programme shall be offered in the following modes of study: Full Time and Institutional Based Programme (IBP).

   7.4 In order to qualify for KNDI registration, graduates are required to undertake a 6 month internship, after graduation.

8. **DURATION**

   The Diploma in Food, Nutrition and Dietetics programme for fulltime students shall be offered for 6 semesters. A practicum of a minimum of 3 months shall be undertaken upon successful completion of the course work before a student can graduate.

9. **EXAMINATION**

   9.1 University regulations shall apply.

   9.2 All units shall be examined at the end of the semester/session in which they are taken comprising of at least two CATs constitute 40% and examination of 60%.

   9.3 Evaluation Criteria:

   Final grading shall be as follows:

   - Distinction (70% and above)
   - Credit 1 (60 -69%)
   - Credit 2 (50 – 59%)
   - Pass (40 – 49%)
   - Fail below 40%
## DIPLOMA IN FOOD NUTRITION AND DIETETICS COURSE STRUCTURE

### Year I

#### Semester I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course title</th>
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<td>HFN 030</td>
<td>Human Anatomy and Physiology</td>
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<td>HFN 031</td>
<td>Introduction to Nutrition Epidemiology</td>
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<td>HFN 032</td>
<td>Principles of Primary Health Care</td>
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<td>Life Skills</td>
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### Year II

#### Semester I

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<td>Communicable and Non-communicable Diseases</td>
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<tr>
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<tr>
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### Year III

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**Semester II**

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## CONTACT HOUR DISTRIBUTION

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<td>3*</td>
<td>72</td>
<td>15</td>
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</table>

**PT = Practicals**  
**T= Theory**  
*Laboratory practical per week; ** Health facility practical per week;  
*** Field work per semester

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<tr>
<th>Code</th>
<th>Unit Name</th>
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COURSE DESCRIPTIONS

YEAR I, SEMESTER I

HFN 021: Introduction to Information Communication Technology (NEW)

Course objectives:
By the end of this course the learner should be able to:
- Explain basic computer terminologies and application of computers in modern society.
- Apply computer skills in performing basic tasks using Microsoft Office.
- Access educational materials in their area of study using the internet.

References

HFN 022: Basic Mathematics (NEW)
Introduction; quadratic functions and equations, surds, logarithms and indices. Permutations and combinations. Series; finite, infinite, arithmetic, geometric and binomial (positive integral index only) including applications to compound interest, approximations, remainder theorem and its application to solution of factorial and polynomial equations. Trigonometry; trigonometric functions including their graphs and inverses in degree and radian measure. Sine and cosine formulae. Statistics; collection and representation of data and measures of central tendency and variability by graphical calculation methods. Probability; classical and axiomatic approaches to probability, compound events, conditional probability, tree diagrams and binomial distribution.

Course objectives:
By the end of this course the learners should be able to:
- Perform basic mathematical calculations.
- Apply appropriate mathematical skills in solving problems in food, nutrition and dietetics.
• Use appropriate statistical techniques to solve related problems in food, nutrition and dietetics.

References

HFN 023: Communication Skills (NEW)
Reading skills; skimming, scanning, intensive and critical reading, interpretation of non-verbal information, content tables and indices. Listening skills; in lectures, predicting structure of a lecture, understanding change of topic and following tutorial discussions. Library skills; accessing library collections and utilizing library help services. Collecting and abstracting information; note-taking, note-making, classification and storage of information. Speaking skills; in tutorials, presenting a paper, seeking clarification and explanation, giving and justifying opinions and agreeing. Writing skills; analyzing tasks, planning, drafting and editing various types of writing, quoting and paraphrasing, indicating references, footnotes and bibliographies. Study techniques; planning work, organizing, storing and retrieving information, preparing for and writing examinations.

Course objectives:
By the end of this unit, the learner should be able to:
• Understand the importance of effective communication
• Comprehend the concepts and methods of effective communication
• Communicate effectively in a given situation
• Store and retrieve information
• Appreciate the barriers to communication

References

HFN 024: General Microbiology and Parasitology (NEW)
Course objectives:
By the end of this course the learner should be able to:
- Explain the role and significance of micro-organisms and parasites in food.
- Describe the intrinsic and extrinsic parameters of foods that affect microbial growth.
- Culture, isolate and classify micro-organisms and parasites in food.

References

HFN 025: Introduction to Food, Nutrition and Dietetics (NEW)
Introduction to food, nutrition and dietetics as a profession. History of nutrition and dietetics. Career opportunities, roles, responsibilities in the field of nutrition and dietetics for diploma holders. The relationships within the profession and interrelationships with other health professions. Contemporary issues in food, nutrition and dietetics. Food, nutrition and dietetics inter and intra professional relationships with other discipline.

Objectives:
By the end of the course the learner will be able to:
- Understand the field of food, nutrition and dietetics.
- Understand the history of nutrition
- Identify career opportunities available in the field of food, nutrition and dietetics.
- Learn the professional conduct of nutritionists and dieticians.

References:

HFN 026: Physical Sciences (NEW)

Course objectives:
At the end of this course the learner should be able to:
• Identify and address their physical science concepts and alternate concepts (misconceptions).
• Attain a general understanding of the basic principles of physics and chemistry.
• Integrate the principles of physics and chemistry into discussions of their practical applications in everyday life including the environment.
• Demonstrate familiarity with general scientific terminology and materials.

References:

HFN 027: Principles of Human Nutrition
Overview of nutrition as a science. Human nutrition concepts and basic principles of nutrition and dietetics with emphasis on different foods, nutrients and their functions. Macronutrients; proteins, lipids, carbohydrates and dietary fibre. Micronutrients; vitamins and minerals. Digestion, absorption, bioavailability and metabolism. Deficiency diseases; manifestations of nutritional deficiency states, short-term and long-term consequences of dietary deficiencies or excesses. Importance of good nutrition. Recommended dietary standards (RDA and RDI). Common nutrition problems; national and global perspectives of nutrition problems, nutrition disorders and their manifestation.

Course objectives:
By the end of this course the learner should be able to:
• Define human nutrition concepts and basic principles of nutrition and dietetics.
• Describe the human dietary requirements
• Describe the nutrition disorders

References:

YEAR I, SEMESTER II

HFN 028: First Aid (NEW)
Overview of first aid. Roles and responsibilities of a first aider. The first aid box. Principles of first aid. First aid situations; shock, loss of consciousness, drowning, difficulty in breathing, cuts, infected wounds, burns, broken bones, dislocations, strains and sprains, poisoning, bites and
stings, constipation, stomach problems, emergency problems of the gut, appendicitis and peritonitis. Care of the sick; home based nutritional and psychological support. Link between hospital and home care. Post first aid care. Practicals; 3 hours per week in the skills laboratory.

Course objectives:
By the end of the course, the learner should be able to:

• Handle an emergency and monitor a conscious victim for life- and non life-threatening conditions.
• Prioritize care for life-threatening injuries or sudden illnesses.
• Manage different types of emergencies and injuries.
• Practice basic precautions to reduce the risk of disease transmission and control.

References:

HFN 029: Introduction to Nutrition and Behavioral Sciences (NEW)
Introduction to nutrition behavior and psychology; Concepts in nutrition and behavior; brain-behaviour connections; Short-term effects of nutrition on behavior. Effects of the following on brain functioning and the central nervous system; dietary supplements, dietary sugar, caffeine and alcohol. Chronic and acute forms of under nutrition; B vitamins and minerals. Behavioral aspects of overweight and obesity. Eating disorder; anorexia nervosa, bulimia nervosa, fad diets and binge eating.

Course Objectives:
At the end of the course, the students should be able to:

• Describe the effects of nutrition on behaviour.
• Describe the effects of nutrient deficiencies on behaviour.
• Identify nutrition disorders that cause behaviour change.

References:

HFN 030: Human Anatomy and Physiology
Basic functional structure of the human body as a primate. Functions of the body in relation to nutrition for the following body tissues; epithelial, connective, muscular, nervous, blood and lymph. Physiology of organs and systems; skeletal, muscular, respiratory, circulatory, digestive, endocrine systems and special tissues. Practicals; 3 hours per week in human anatomy and physiology laboratory.
Course objectives:
By the end of the course unit, the learner should be able to:

- Describe the anatomy and physiology of the skeletal, muscular, nervous, endocrine and cardiovascular and lymphatic systems.
- Identify and describe the cell as the basic building block of the body
- Describe the relationship between the functions of different body system in health and Disease.

References:

HFN 031: Introduction to Nutrition Epidemiology

Course objectives:
By the end of this unit the learner should be able to:

- Explain the principles and techniques of epidemiology
- Calculate incidence, prevalence and other outcomes of diseases
- Analyze disease outbreaks and progression

REFERENCES:

HFN 032: Principles of Primary Health Care (NEW)
Definition of Primary Health Care (PHC). Goal of PHC. Key elements of PHC. Origin, organization, strategies, implementation, achievements and constraints. Alma Ata Declaration. Approaches of PHC. Financing and reforms in PHC; community strategy, Community Based Health Care (CBHC) and World Health Organization’s goal of health for all. Millennium Development Goals (MDGs). Community resource persons/volunteers roles and training;
Community Health Workers (CHWs) and Community Health Extension Workers (CHEWs). Community-based health services; Bamako Initiative and community-based distribution of contraceptives. Child health; the aims and principles of Extended Programme of Immunization (EPI), cold chain management, the preventable childhood diseases, the vaccines, the national immunization schedule, the Integrated Management of Childhood Illnesses (IMCI) concept and application, Integrated Management of Acute Malnutrition (IMAM), Prevention of Mother to Child Transmission (PMCT) and Baby Friendly Hospital Initiatives (BFHI). Roles of traditional health. Case studies of PHC implementation; Kenya, Uganda, Tanzania, South Africa, Nigeria and Ghana. Field trips; 6 hours per week hands on experience in primary health care in a health facility.

Course objectives:
By the end of this course unit, the learner should be able to:
- Explain the concept of primary health care.
- Apply PHC knowledge and skills in nutrition and dietetics
- Plan, implement and evaluate community projects or programmes

References:

HFN 033: Life Skills (NEW)

Course objectives:
By the end of this course the learner should be able to,
- Demonstrate understanding of the life skills principles and techniques
- Apply life skill education in leadership and management
- Apply life skill education in entrepreneurship

References:
HFN 034: Introduction to Food Microbiology

Course objectives:
By the end of this course the learner should be able to:
- Classify food borne microorganism
- Apply microbiological principles in identification of microorganisms
- Apply microbiological principles in culturing, enumeration and control of microorganisms

References:

YEAR II, SEMESTER I
HFN 035: Introduction to Organic Chemistry
Functional group chemistry; hydrocarbons, alcohols, aldehydes, ketones, carboxylic acids, esters, thiols, phenols, ethers, amines and amides. Structure of biomolecules; amino acids, proteins, sugars and lipids. Chemistry related to characteristics and occurrence of nutrients and essential elements of diets. Functional group analysis and inter-conversions. Stereochemistry; nucleophilic substitution, elimination reactions and addition reactions. Tests for simple organic compounds. Practicals; 3 hours per week chemistry laboratory

Course objectives:
By the end of the course the learner should be able to:
1. Identify the main functional groups that constitute food nutrients, such as hydrocarbons, alcohols, alkylharides, ketones, carboxylic acid, amines and amino acids.
2. Draw and name the general structures of basic organic compounds and their functional groups
3. Explain some reactions processes of the main functional groups
4. Identify the functional groups that make food nutrients-carbohydrates, proteins, vitamins, lipids.
5. Explain some characteristics of these food nutrients.
References:

HFN 036: Nutrition in the Lifecycle
Introduction to lifespan. Factors that determine individual’s nutritional needs. Importance of preconception nutrition in men and women. Nutritional requirements and deficiency diseases in; pregnancy, lactation, infancy, early childhood, late childhood, adolescence, adulthood and old age. Obesity among young children. Non food based interventions to maternal nutrition. Emerging issues affecting nutrition in lifecycle; policy, eating habits, globalization and technology. Emphasis on nutrition needs of vulnerable groups; how to meet these needs and the challenges faced in meeting the needs in resource poor settings.

Course objectives:
By the end of the course the learner should be able to:
- Describe the factors that influence individual nutritional needs.
- Describe the nutrient needs during the different stages of the lifecycle.
- Explain the diseases associated with deficiencies during the various stages.
- Identify emerging issues affecting nutrition in the lifecycle.

References:

HFN 037: Introduction to Nutritional Anthropology (NEW)
Sociology of food and nutrition; evolutionary and behavioral. Social and cultural perspectives in nutrition; food taboos, cultural notions, personhood, kinship, sharing and morality. Human behaviour in food acquisition; preparation and consumption. Clinical and social significance of the human diet and nutrition. Anthropological methodologies in nutritional studies; social cultural processes and nutrition, cultural and ideational systems, physiological adaptation, population genetics, and nutrition. Applied research for nutrition programs. Evolutionary perspectives on human diet; biological plasticity, human growth and development, hunter gatherer nutrition, social factors that determine the patterns of nutrition diseases within and across population. The politics of food. Field trips; 40 hours per semesters, 5 hours per week of nutrition anthropology projects in the community.

Course objectives:
By the end of the course, learners should be able to:
- Describe the role of culture as a diet determinant
- Describe nutritional behaviour and practices of the different cultures
- Discuss various food taboos and social factors that influence lifestyle diseases
- Demonstrate ability to influence eating habits in different cultures

References:

HFN 038: Food Security (NEW)
Definition of food security. Dimensions of food security. Measurement of food security at regional, national, county, household and individual levels. Right to food and food sovereignty; Gender and food and nutrition security. Causes of food insecurity. Effects of food insecurity. Actions to improve food security. Food security chain; production, processing, storage, marketing, distribution, import and export. Global and regional challenges of food security; Global trends in food production, trade and economic implications. Crosscutting issues; economic, cultural, social and political factors. Case studies in food security. Field trips; 40 hours per semester for conducting nutrition food and nutrition security projects/surveys.

Course objectives:
By the end of the course, the learners should be able to:
- Explain the meaning of food security at regional, national, county, household and individual levels.
- Describe the factors affecting food security at different levels.
- Describe the actions to improve food security
- Discuss global factors that impact on food security

References:

HFN 039: Communicable and Non-communicable diseases (NEW)

Course objectives:
By the end of this course the learner should be able to:
- Distinguish between communicable and non-communicable diseases
• Describe the causes, consequences and solutions of communicable and non-communicable disease
• Identify regions prone to various communicable and non-communicable diseases in developing countries.

References:
2. Ogola E.N. et al. (2006). Medicine, non-communicable diseases in adults. 2\textsuperscript{nd} ed. Nairobi Kenya AMREF

**HFN 064: Foundations of Food preparation**

**Course objectives:**
By end of the course learners should have developed/acquired:
• Knowledge about basic principles of food preparation.
• Knowledge about properties of foods and their function in food preparation.
• Ability to utilize various properties of different foods in food preparation
• Ability to demonstrate skills in proper food handling, preparation, presentation and maintenance of high sanitation standards.

References:

**HFN 065: Nutrition Assessment and Surveillance**
Course objectives:
By the end of the course the learner should be able to:

- Describe the different methods of nutritional assessment.
- Analyze and disseminate nutritional status assessment data.
- Plan, conduct and use nutritional assessment for various programs.

References:

YEAR II, SEMESTER II

HFN 066: Introduction to Maternal and Child Nutrition

Course objectives:
The leaner should be able to

- Understand importance of child health in relations to disease and nutrition
- Describe nutritional requirements during pre-conception, pregnancy, lactation, complementary feeding and preschool periods
- Describe intervention programmes to improve maternal and child health.
- Promote child health through prevention of childhood diseases

References:

HFN 067: Diet Therapy I (NEW)
children, Low Birth Weight (LBW) infants, failure to thrive, colic, functional infant vomiting, constipation, diarrhea, cleft lip and palate. Malabsorption problems; Inborn errors of metabolism, lactose intolerance, food allergies, gastrointestinal diseases and disorders. Management of underweight, overweight and obesity. Field trip; 6 hour per week field health facility visit for hands on experience on diet therapy.

**Course objectives:**
By the end of this course the learner should be able to:
- Describe the basic concepts of diet therapy.
- Recognize special dietary needs for patients and clients with different disorders and use the appropriate nutritional care to manage them.
- Evaluate patients / clients response to nutritional care and modify accordingly.
- Apply the knowledge, skills and attitudes learned in a clinical setting.

**Reference:**

**HFN 068: Principles of Food Processing, Preservation and Storage**
Quality of raw food materials. Introduction to food processing and preservation techniques; energy input (heat, irradiation, microwaves, pressure), temperature reduction (chilling, freezing), water removal (concentration, evaporative drying, freeze drying), biological methods (acid and alcohol fermentation, malting) chemical methods (additives, smoking). Nutrient loss in food processing, preservation and storage. Packaging and storage. Practicals; 3 hours a week in a food laboratory.

**Course objectives:**
By the end of the course the learner should be able to:
- Identify different types of food spoilage.
- Identify sources and causes of food contamination and spoilage.
- Identify appropriate methods used in preventing food contamination and spoilage.
- Perform particular processing and preservation operations.

**References:**

**HFN 069: Basic Biochemistry**
Introduction to biochemistry and metabolism. Structure and functions of biomolecules; carbohydrates, lipids, proteins and nucleic acids. Metabolism of carbohydrates, proteins and
lipids. Regulation of metabolism. Role of vitamins and trace elements in metabolism. Enzymes classification and functions.

Course objectives:
At the end of this course students should be able to:
- Understand the metabolism of major nutrients.
- Understand the role of enzymes in nutrient metabolism and in provision of energy.
- Understand the mechanism of protein synthesis.
- Understand the role of hormones in nutrient metabolism and regulation.
- Explain the disorders of abnormal metabolism and hormones disturbances.

References:

HFN 070: Introduction to Nutrition in Emergencies

Course objectives:
By the end of this course, the learner should be able to:
- Discuss the types, phases and consequences of disasters/ emergencies
- Discuss the food and nutrition emergency responses
- Discuss the roles of key stakeholders in humanitarian assistance.

References:

HFN 071: Introduction to Basic Biostatistics New)
Course objectives:
By the end of the course the learner should be able to:-
- Explain concepts in biostatistics.
- Collect, organize and present data in a scientific way.
- Apply various measures of central tendency and dispersion, the concepts of correlation, regression.

References:

HFN 072: Nutrition and HIV and AIDS

Course objectives:
By the end of this course, students should be able to:
- Describe relationship between nutrition and HIV/AIDS
- Describe the aims of nutritional care and support for PLWHAs
- Describe the link between HIV/AIDS and food security as well as effective nutritional care in food insecurity situations
- Outline nutritional care and support in different physiological states i.e. pregnancy, lactation and adolescents
- Explain nutrient ARVs/drug interactions

References:

YEARS III, SEMESTER I

HFN 073: Food Hygiene, Safety and Legislation (NEW)
Introduction to food safety and hygiene. Food contamination. Types of hazards in foods; physical, biological, and chemical. Nutritional safety; food poisoning and food borne illnesses; preventing food borne illnesses; Preventing food contamination; Food handling; Personal
hygiene; washing hands; cross contamination; raw and cooked food; design requirements of food contact surfaces; hygiene of premises and facilities; hygienic design of the premises and equipment; Principles of hazards analysis and critical control point (HACCP); Inspection of food facilities.

Course objectives:
By the end of the course the learner should be able to:
- Describe food borne illnesses and the associated hazards.
- Demonstrate hygienic food handling procedures.
- Carry out inspection of food facilities.

References:

HFN 074: Nutrition Education

Course objectives:
At the end of the course, the student should be able to:
- Describe the characteristics and explain the advantages and limitations of the different approaches used in nutritional education
- Describe the steps and criteria in development of education training programs
- Discuss the role of stakeholders in provision of nutrition education
- Evaluate nutrition education programmes.

References:

HFN 075: Nutrition Intervention
Current common nutrition/health problems and international benchmarks. Basic methodologies in assessment of nutrition. Early warning system (EWAS). Common nutrition and health interventions at individual, community and household levels. Factors to consider in the diagnosis, planning, implementation and evaluation of intervention programmes. Role of
stakeholders in nutrition and health interventions. Strategies in behavior change and communication (BCC). Field trips; 40 hours per semester practical experience in nutrition intervention programmes/projects.

Course objectives:
At the end of the course the learner should be able to
- Identify common nutrition and health problems
- Describe the role of stakeholders in provision of intervention programme
- Describe the evaluation process of different interventions

References:

HFN 076: Nutrition and Health Information Systems
Description of nutrition and health information system. Role of nutrition and health information in managing health activities. Identification of health information needs. Healthcare indicators; morbidity, mortality, birth rate, death rate and life expectancy. Functional levels in healthcare information system. Sources of health information; Forms and tools used to collect different sets of data such as growth monitoring. Policies and procedures for data collection, analysis, presentation, reports, storage, retrieval, dissemination and utilization. Legal and ethical aspects of hospital system; coding, confidentiality, access, protection and security of information. Practical; 3 hours per week experience in a health facility setting.

Course Objectives:
- Describe the routine and non-routine data collection methods in health and nutrition programme/service.
- Develop a set of data collection instruments for health and nutrition programme.
- Explain the set up of management of health and nutrition information systems.
- Explain surveillance of health and nutrition status of the community.
- Explain the level and ethical aspects of health care (hospital) system.

References:
HFN 077: Legal Aspects in Foods, Nutrition and Dietetics (NEW)
Introduction to law; Meaning of law, Sources of laws in Kenya, Arms of government and Court hierarchy. The law of tort; The meaning and scope; Tort and crime; Tort and contract; Torts and vicarious liability; Torts related to dietetics; Defenses under the law of tort; Remedies under the law of tort. Criminal law; The meaning and scope; Types of contracts; Essentials of valid contracts; Capacity to enter into a contract; Breach of contracts; Remedies; Termination; Consumer protection; Public health and safety legislations; Nutritionist and Dietician’s Act; Dangerous Drugs Act; Food, Drugs and Chemical Substances Act; Radiation Protection Act; Public Health Act; Pharmacy and Poisons Act; The Trade Licensing Act; Bio-safety Act and other related acts. Intellectual property right; emerging legal issues in nutrition; Nutrition policy

Course objectives:
By the end of this course unit, the trainee should be able to:
- Explain the sources of law in Kenya
- Describe the organization of the judiciary
- Demonstrate competency in interpreting public health and safety legislation.

Reference:

HFN 078: Meal Management and Planning (NEW)
Introduction to meal planning. Economic, aesthetic, nutritional and managerial considerations in meal planning and service. Kitchen management and equipment for meal preparation production, service and food storage. Food and beverage service and etiquette. Introduction to food service; the service area, table appointments and methods of service. Introduction to the food pyramid and food exchange list. Meal planning for the family, special groups, institutions and special occasions. Practicals; 3 hour per week sessions in a food laboratory.

Course objectives:
By the end of the course the learner should be able to:
- Describe the processes of food selection, preparation and service in different situations.
- Plan meals for different age groups
- Describe the stages in menu planning, implementation for institutional settings.

References:

**HFN 079: Diet Therapy II (NEW)**

Dietary management for various disorders relating to body systems; diseases of the liver, gallbladder and pancreas; diseases of the heart, blood vessels and the lungs; hyper-lipoproteinemina. Classes of lipo-proteins. Functional classification of lipid disorders; acute cardiovascular diseases, hypertension, diabetes mellitus and renal diseases. Field trip; 6 hour per week in a health facility for hands on experience on diet therapy.

**Course objectives:**
By the end of this course the learner should be able to:
- Describe the basic concepts in dietary management of various disorders.
- Describe the impact diet induced lifestyle diseases
- Describe how to manage various lifestyle diseases.

**References:**

**YEAR III, SEMESTER II**

**HFN 080: Diet Therapy III (NEW)**

Dietary management in; immunity, stress, infections, surgery, burns, cancer, HIV/AIDS and other clinical disorders or conditions. Nutritional support in musculoskeletal diseases; rheumatoid arthritis, osteoarthritis, osteoporosis and gout. Nutritional support in neuromuscular diseases; traumatic brain injury, spinal cord injury, stroke, cerebral palsy, epilepsy, spina bifida, down syndrome, parkinson’s disease, huntington’s chorea, guillain barre syndrome, myotrophic sclerosis, multiple sclerosis, myastheria gravis and alzheimer’s. Field trip; 6 hour per field health facility visit for hands on experience on diet therapy.

**Course objectives:**
By the end of this course the learner should be able to:
- Describe the basic concepts in dietary management of various disorders.
- Describe the impact of dietary induced lifestyle diseases on the health status of individuals.
- Describe how to manage various diseases.

**References:**

**HFN 081: Community Partnership, Programme Planning and Evaluation**


**Course objectives:**

By the end of this course, the learner should be able to:

- Define the concept of community partnership
- Identify different approaches for building community partnerships
- Identify possible problems and challenges in developing a genuine partnership
- To be able to plan, monitor, implement and evaluate community programmes.

**References:**


**HFN 082: Entrepreneurship in Food, Nutrition and Dietetics**


**Course objectives:**

By the end of this course, the learner should be able to:

- Outline factors affecting the success of a business.
- Apply entrepreneurial competencies in business management.
- Explain management skills necessary for running a successful enterprise.
- Analyze the efficiency of resource utilization and productivity.
- Develop a business plan.

**References:**

HFN 083: Principles of Dietetics

Course objectives:
By the end of this course the learner should be able to:

- Apply dietary planning techniques as well as exercising diet and modification in planning diets for patients.
- Describe application of oral, enteral, parenteral feeding as applied in hospitals
- Describe nutrient-drug and nutrient-nutrient interactions and management of their effects and adherence to different health conditions.

Reference:

HFN 084: Introduction to Research Methodology
Definition of concepts in research methods. Purpose of research. Types of research. Proposal development process; topic and title development, background information, statement of the problem, objectives, hypotheses, review of literature, research design, sample size determination and sampling techniques, ethical considerations in research, data analysis, interpretations, and references. Report writing. Seminar presentations.

Course objectives:
By the end of the course, the learner should be able to:

- Describe different types of research.
- Describe the processes of proposal development.
- Carry out research in the area of food, nutrition and dietetics.

References:

HFN 085: Principles of Nutrition Counseling
Principles of counseling. Role and qualities of a nutrition counselor. Nutrition counseling plans. Counseling process; nutrition counseling laboratory. Dietary and health counseling; nutrition counseling techniques; designs and implementation of nutrition counseling. Exposure to one clinical counseling as role play in class. Skill laboratory practicals; 6 hours per week of nutrition counseling to a client in a health facility setting.
Course objectives:
By the end of the course, learners should be able to:

- Explain the meaning, purpose of nutrition counseling with key issues in planning a counseling session
- Understand the roles and qualities of a nutrition counselor
- Describe different techniques that are used in nutrition counseling and elements of quality nutrition to nutrition counseling
- Design nutrition counseling plans for at risk groups
- Discuss dietary practices and habits that require change at individual, household, and community/institutional level

References:

HFN 086: Practicum
Supervised practical experience in medical facility settings (or) organizations dealing with community nutrition (or) food industries to gain hands-on experience in the relevant areas for a period of 3 months. Diploma students to attend 1 practicum session upon completion of ALL units before graduation. Maintenance of daily record of activities, engage in and submit a report at the end of practicum. External industrial supervisors to evaluate students using the departmental evaluation form and submit marks to the department. Diary and practicum report to be marked by departmental lecturers upon completion.

Course objectives:
By the end of the practicum the learner should be able to:

- Write a report on ones experience in the institution or organization of attachment.
- Conduct a situational analysis in regard nutrition and dietetics management at the assigned organization or health facility
- Identify problems and intervention for discussion with the management of the organization or facility.
- Document lessons learnt from the field attachment exercise.

References: