DOMAIN I - NUTRITION SCIENCE AND CARE FOR INDIVIDUALS AND GROUPS – (44%)

TOPIC A - Principles of Basic and Normal Nutrition

1. Nutrients and phytochemicals
   a. Functions
   b. Deficiencies and excesses
   c. Macronutrients sources
   d. Micronutrients sources
2. Basic human physiology, physical and biological sciences (e.g., microbiology and chemistry)
3. Nutrient and calorie needs at various stages of the life span (e.g., DRIs/RDAs, macronutrients, vitamins and minerals)
   a. Infancy
   b. Childhood
   c. Adolescence
   d. Adulthood
   e. Pregnancy and lactation
   f. Geriatric
4. Cultural awareness
   a. Religion
   b. Ethnicity
   c. Gender sensitivity
   d. Race
5. Nutrition requirements in health promotion and disease prevention
   a. Infancy
   b. Childhood
   c. Adolescence
   d. Adulthood
   e. Pregnancy and lactation
   f. Geriatric

TOPIC B – Screening and Assessment

1. Nutrition screening
   a. Purpose
   b. Selection and use of risk factors
   c. Values and limitations
   d. Methodology
   e. Documentation
2. Nutrition assessment of individuals
   a. Anthropometric data (e.g., height, weight, body frame, standard weight for height, weight/height ratio (BMI), skinfolds, circumferences and growth charts)
   b. Biochemical/laboratory
      (1) Lab abbreviations
      (2) Lab values related to and indicative of nutritional status
c. Clinical
   (1) Physical assessments (e.g., blood pressure, signs and symptoms
   (2) Medical history
   (3) Activity patterns/level of intensity, duration
   (4) Drug/medications/nutrient interaction implications for potential nutritional problems
   (5) Medical terminology

d. Nutrition intake
   (1) Assessment method
      (a) 24-hour recall
      (b) Food frequency questionnaire
      (c) Diet history
      (d) Fluid status (I/Os)
      (e) Interviews/verification
   (2) Analysis of dietary information
   (3) Oral dietary supplements (e.g., vitamins, herbs, and other integrative and functional medicines)
   (4) Enteral/Parenteral nutrition

e. Economic/social
   (1) Socioeconomic
   (2) Cultural/religious food patterns
   (3) Psychological/behavioral
   (4) Lifestyles/preferences
   (5) Food fads/cultism
   (6) Level of education
   (7) Nutrition knowledge and interest
   (8) Needs assessment (e.g., external constraints, competing programs and illness)
   (9) Educational readiness assessment
      (a) Motivational level
      (b) Educational level
      (c) Situational (e.g., environmental and economic)
      (d) Target groups and populations

3. Nutrition assessment of populations
   a. Nutrition status indicators
      (1) Age, sex, ethnic and cultural groups
      (2) Specific and special needs populations
      (3) Nutrition risk factors
   b. Demographic data
   c. Nutritional screening surveillance systems
      (1) National surveys
      (2) Reference data
   d. Community health resources data
      (1) Food programs
      (2) Consumer education resources
      (3) Health services
   e. Public health programs and practices
      (1) Public health principles
      (2) Programs

**TOPIC C – Planning & Intervention**
1. Intervention for individuals
   a. Nutrition care for health promotion and disease prevention
      (1) Identify desired outcomes/actions
       (a) Relationship of nutrition to maintenance of health and prevention of disease during major stages of the life span
       (b) Propaganda
        (i) Popular diets
        (ii) Health fraud
        (iii) Marketing gimmicks
      (2) Determine energy/nutrient needs specific to life span stage
      (3) Menu planning for health promotion
       (a) Nutritional adequacy
       (b) Client acceptance, diet patterns, schedules
       (c) Socio-cultural ethnic factors
       (d) Substitutions and food preferences
       (e) Cost factors
       (f) Food labeling (e.g., ingredients and additives)
       (g) Recipe modification
       (h) Culinary demonstrations
       (i) Grocery store tours
   b. Medical Nutrition Therapy
      (1) Planning
       (a) Identify desired outcomes and actions
       (b) Treatment of major-related disorders or conditions
        (i) Cardiovascular
         (aa) Lipid Disorders
         (bb) Hypertension
        (ii) Critical care
         (aa) Trauma
         (bb) Surgery
         (cc) Burns
        (iii) Metabolic disorders
         (aa) Diabetic
         (bb) Inborn errors of metabolism (e.g., PKU)
        (iv) Gastrointestinal
         (aa) Hepatic
         (bb) Pancreatic
        (v) Malnutrition
         (aa) Protein
         (bb) Calorie
         (cc) Vitamin
         (dd) Mineral
        (vi) Oncologic conditions
        (vii) Renal disorders
        (viii) Respiratory disorders
        (ix) Wound care
      (c) Determination of energy/nutrient needs specific to condition
      (d) Determine specific feeding needs
       (i) Composition/texture of foods
(ii) Sources and preparation standards
   (aa) Modified diet products
   (bb) Enteral feedings
   (cc) Food supplements

(iii) Methods of nourishment
   (aa) Routes (e.g., oral, enteral and parenteral)
   (bb) Techniques/equipment
   (cc) Values/limitations/complications

(iv) Diet patterns/schedules and/or specific meals for diagnostic tests (e.g.,
test meals)

(v) Documentation of client care
   (aa) PES statements
   (bb) Other methodology and procedures

(2) Implementing care plans
   (a) Provision of individualized nutrition care for specific nutrition-related
problems
   (b) Communication regarding plans with:
      (i) Other healthcare personnel (e.g., team rounds and care conferences)
      (ii) Patients and families, including informed consent
   (c) Educate
   (d) Discharge planning for continuity of care
   (e) Recommend clients receive physical, social, behavioral and psychological
services
   (f) Documenting implementation (e.g., appropriate charting techniques,
confidentiality and protocol)

2. Interventions for populations

a. Dietary guides and their use
   (1) DRI/RDA
   (2) Food group plans (e.g., MyPlate)
   (3) Federal dietary guidelines and goals
      (a) Dietary Guidelines for Americans
      (b) Surgeon General’s Report on Nutrition and Health
   (4) National groups
      (a) National Heart, Lung & Blood Institute (NHLBI)
      (b) American Cancer Society
      (c) American Heart Association (AHA)
      (d) National Cholesterol Education Program
      (e) Breastfeeding initiatives
      (f) Other

b. Community nutrition programs services and implementation
   (1) Federal resources and food assistance programs
      (a) SNAP (Supplemental Nutrition Assistance Program)
      (b) Title III Nutrition Services
      (c) Child Nutrition Programs (e.g., School Breakfast and Lunch Program)
      (d) Special Supplemental Nutrition Program for Women, Infants, and Children
      (e) Expanded Food and Nutrition Education Program (EFNEP)
   (2) Food banks and other community resources
   (3) Lead education or support groups for client populations
   (4) Distribute nutrition information through the media

3. Education and training
a. Targeted audiences (e.g., patient, client, employee and students)
b. Goals and objectives
c. Education venue (e.g., in-service, on-the-job training, e-learning, telemedicine and telehealth)
d. Content specifications (e.g., community resources, learning activities and methodologies, references, handouts and audiovisual aids)
e. Evaluation criteria
f. Budget development
g. Program promotion

TOPIC D - Monitoring and Evaluation

1. Monitoring progress and updating previous care for uncomplicated conditions
   a. Monitoring responses to nutrition care
   b. Comparing outcomes to nutrition interventions
   c. Monitor medication and dietary supplement use
2. Monitoring tolerance of diet, tube feeding and medical nutrition supplements
3. Measuring outcome indicators (e.g., using AND evidence-based guides for practice)
4. Evaluating outcomes for common conditions
   a. Direct nutrition outcomes
   b. Clinical and health status outcomes
   c. Patient-centered outcomes
   d. Health care utilization outcomes
   e. Evaluate learner knowledge and performance
5. Communicating with dietitian
6. Documentation
   a. Privacy of medical information (e.g., HIPAA)
   b. Data mining
7. Healthcare informatics and technologies
   a. Electronic medical record
   b. Nutrient analysis and databases (e.g., on-line database and other)
   e. Regulations for nutrition labels
8. Evaluation of education programs
   a. Implementation
   b. Communication
      (1) Interpersonal
      (2) Group process
   c. Methods of instruction
9. Evaluation of educational outcomes
   a. Formative
   b. Summative
   c. Evaluation of effectiveness of educational plan
DOMAIN II – FOOD SCIENCE AND FOOD SERVICE (24%)

TOPIC A - Menu Development

1. Types of menus
   a. Nonselective, selective
   b. Cycle, static
   c. Retail, restaurant, room service
2. Menu development
   a. Guidelines
   b. Clients
   c. Internal and external influences (e.g., renovation, disaster and emergencies)
   d. Client/customer satisfaction measuring and documentation
3. Menu modifications (e.g., texture, nutrient, cultural, allergy and food sensitivities)

TOPIC B - Procurement and Supply Management

1. Food and product specifications
   a. Product and packaging selection
   b. Vendor selection (e.g., bids and contracts)
2. Policies and procedures (e.g., purchase, receipt, storage and distribution of food and supplies)
   a. Purchasing systems, methods and decisions
   b. Inventory management
   c. Forecasting food demand
   d. Ordering food and supplies

TOPIC C - Food Production, Distribution, and Service

1. Production
   a. Procedures
      (1) Recipe development and adjustment
      (2) Cooking methods
      (3) Ingredient control
      (4) Portion control
         (i) Yield analysis
         (ii) Costing
         (iii) Pricing
   b. Production systems
      (1) Conventional
      (2) Commissary
      (3) Ready prepared
      (4) Assembly serve
      (5) Cook-chill
      (6) Display cooking
2. Distribution and Service
   a. Form of food delivered
   b. Type of service systems (e.g., centralized and decentralized)
   c. Clients and customers served
   d. Schedules of assembly and breakdown
   e. Room service
3. Physical and chemical properties of food
   a. Meat, poultry, and fish
   b. Eggs
   c. Milk and dairy
   d. Vegetables and fruit
   e. Flour
   f. Fats and oils
   g. Engineered foods
   h. Functional foods

4. Food preparation
   a. Functions of ingredients
   b. Techniques and methods
   c. Effects on food quality
   d. Effects on nutrient retention
   e. Food additives

**TOPIC D – Sanitation, Safety, Facility and Equipment**

1. Safety
   a. Employee safety
   b. Safety programs and practices
   c. Customer safety

2. Sanitation and food safety
   a. Principles
      (1) Contamination and spoilage
      (2) Factors affecting bacterial growth
      (3) Signs and symptoms of food borne illness
   b. Sanitation practices and infection control
      (1) Personal hygiene
      (2) Food and equipment temperature control
      (3) Food handling techniques
      (4) HACCP
   c. Regulations
      (1) Governmental
      (2) Accrediting agencies
   d. Food quality and safety
      (1) Temperature
      (2) Additives
      (3) Documentation and record keeping
      (4) Crisis management

3. Equipment and facility planning
   a. Layout design and planning considerations
   b. Equipment specification
   c. Equipment selection
   d. Sustainability
      (1) Food and water
      (2) Non-food
      (3) Waste management

**DOMAIN III – MANAGEMENT OF FOOD AND NUTRITION SERVICES (32%)**
TOPIC A - Human Resources

1. Organizational structures
   a. Organizational charts
   b. Job descriptions, specifications and classifications

2. Employment processes
   a. Procedures for regulation compliance
      (1) Labor laws
      (2) Union contracts
   b. Recruitment, selection, and orientation
   c. Scheduling
   d. Productivity and work simplification
   e. Performance standards and competencies
   f. Performance appraisals and documentation
   g. Personnel actions
   h. Retention
   i. Diversity

TOPIC B - Finance and Materials

1. Budget development
   a. Financial objectives
   b. Budget types
      (1) Operations
      (2) Capital
      (3) Other

2. Financial analysis
   a. Labor
   b. Food
   c. Capital
   d. Other

3. Cost controls and materials management
4. Financial performance monitoring and evaluation

TOPIC C - Marketing Products and Services

1. Marketing principles
   a. Techniques and methods (e.g., surveying audience needs and preferences)
   b. Preparation and implementation
   c. Evaluation (e.g., document findings and adjust and correct plan)

2. Marketing strategies
   a. Product
   b. Place
   c. Promotion
   d. Price
TOPIC D – Management Principles and Functions

1. Management principles
   a. Approaches
      (1) Classical/traditional
      (2) Behavioral
   b. Skills
      (1) Technical
      (2) Human
      (3) Conceptual
   c. Roles
      (1) Information giving
      (2) Conflict resolution
      (3) Problem solving
      (4) Decision making
      (5) Communication

2. Planning
   a. Short and long range
   b. Strategic and operational
   c. Policies and procedures
   d. Disaster preparedness

3. Organizing
   a. Structure/design of department/unit
   b. Establishing priorities
   c. Tasks/activities and action plans
   d. Resource allocation

4. Professional standards of practice and development
   a. Roles and levels of dietetics personnel
   b. Legislative process

TOPIC E - Quality Process and Research

1. Regulatory guidelines (e.g., federal, state, local and accreditation agencies)
2. Quality process and implementation
   a. Plans
   b. Standards/criteria/indicators
   c. Documentation of data collection and outcomes
   d. Corrective actions
   e. Evaluate effectiveness
   f. Report

3. Research
   a. Identifying problems
   b. Data collection
   c. Reporting