**Course name: Nutrition of special groups, course code: 30**

Number of units: 2

Unit type: 2 theoretical units

 Prerequisite: basic nutrition 1 and 2, physiology of nutrition

**General purpose:**

Getting to know the principles of nutrition and treatment factors on nutritional status in special groups and reaching criteria that can provide services to these groups.

At the end of this course, the student is expected to:

***Academic goals:***

It discusses the physiological, psychosocial characteristics of each of the special groups.

Identify and explain the appropriate methods for evaluating the nutritional status of each special group.

To evaluate and analyze the nutritional status of the studied groups.

It describes the common nutritional needs and problems of each study group.

***Skill goals***

Use appropriate methods to evaluate the nutritional status of each of the special groups.

To evaluate and diagnose the nutritional status of the studied groups to provide them with appropriate nutritional plans and solutions.

Diagnose the nutritional issues of selected cases (case studies) from the investigated groups, adjust the food plan suitable for their special needs, and recommend water and treatment methods.

**Lesson description:**

One of the duties of nutrition is to provide nutrition services to special groups and the needs and nutrition issues of these groups become a knowledge and skill for these tasks. In this lesson, students will get to know the physiological characteristics of each of the studied groups (athletes, vegetarians, drug addicts, nutritional conditions and crises) and related factors, needs and nutritional issues in order to become familiar with nutritional foods.

**Outlines**

1. Nutrition and exercise

- Familiarity with the concept of physical activity, sport and sports competition

- Exercise physiology, physical concept

- Getting to know the types of sports and energy sources of aerobic and non-aerobic activities and the intensity and type of exercise

- Getting to know the athlete's plate guide for sports with different intensity

- Familiarity with nutritional needs (energy, macronutrients and micronutrients)

- Nutritional planning and appropriate nutritional interventions before, during and after sports and sports competitions

- Weight management in athletes

- Familiarity with various types of energy and nutrition supplements and energy supplements and drinks for athletes,

- Nutritional needs of athletes in special periods (childhood, youth and old age)

2. Nutrition and vegetarianism:

- Definition of vegetarianism and types of groups of vegetarians

- Guide pyramids for food intake in types of vegetarianism

- Nutritional needs of vegetarians in different periods of life

- and nutritional substitutes in vegetarians and their supplement consumption

- Herbivorous plants in air and disease control

- Specific nutritional issues in all types of vegetarian groups and setting up a suitable meal plan for the needs of each group

 3- Nutrition and nutrition

- Types of introduction of addictive substances: alcohol, caffeine, tobacco, other drugs such as heroin, cocaine and opium.

- The effect of food on the health and nutritional needs of a person

- Suitable for taking care of nutrition in interventions and in winter and therapeutic programs

4-Nutrition in crises and emergency situations

- Definitions: social crisis/disaster (such as war), natural (such as flood, earthquake, famine, etc.)

- Nutritional issues and needs of humans (with emphasis on different sens groups) in emergencies and hunger

- Screening methods and appropriate indicators and quick tools to assess the nutritional status of people at nutritional risk in social crises and natural disasters.

- Familiarity with internal and external organizations related to disaster nutrition and their duties

- Different methods of food aid, public nutrition, types, amount and composition of food rations for distribution in critical situations.

- Method(s) of nutritional monitoring in critical conditions

- Selective and targeted nutrition programs in vulnerable groups (supplementary nutrition program and treatment nutrition program) and the decision to act on a selective nutrition program.

5- Nutrition and rations of military personnel

- History of nutrition in different armies and military groups

- Recommended Daily Standard for Dietary Supplements (MDRI)

- The required amount of energy and nutrients in different weather conditions, altitude and different operational conditions

- Types of food rations for soldiers

6- Nutrition and physical and mental disabilities

- All kinds of physical and mental disabilities

- Nutrition care (assessment, diagnosis, intervention and evaluation and monitoring) in children with physical and mental disabilities.

- Nutrition care (assessment, diagnosis, intervention and evaluation and monitoring) in adults with physical and mental disabilities.

**The main sources of the lesson (latest edition):**

1. Mahan LK, Raymond JL. Krause Food and the Nutrition Care Process: Elsevier Health Sciences.

2. Lee, R. D and DC Neiman. Nutrition assessment. McGraw Hill, Boston

3. Rawson ES, Volpe SL. Nutrition for elite athletes: CRC Press.

4. Hill N., Fallowfield J., Price S., Wilson D. Military nutrition: maintenance of health and regeneration of damaged tissue.

5. Melina V, Davis B. The New Becoming Vegetarian: The Essential Guide to a Healthy Vegetarian Diet: The Book Publishing Company.

6. Final Report of RTO Task Force. Nutritional science and food standards for military operations. North Atlantic Treaty Organization

**Student evaluation method:**

- End of semester exam (40% grade)

- Solving problems about each of the special groups under discussion (20% of the score)

- Small tests between semesters (30% of the grade)

- Regular attendance and class activities such as lectures on class topics (10% of the grade)

- Visit related centers