TECHNICAL AND DIET SCIENCES APPLIE

[in FOOD AND NUTRITION FOR HEALTH AND FITNESS AND CLINICAL PATHOLOGY]

Course ID: MED/49

ECTS: 4

1nd Year: 2st semester

Teacher: PROF. DI RENZO Laura

Objectives:

To know the techniques and methods for defining the state of health and risk of disease, according to the nutritional status.

To know the indicators of nutritional risk predictors of disease.

To know the role of diet in the prevention of chronic degenerative diseases

Program:

Nutrition and non comunicable diseases. Principles of diet therapy.
1) Assessment of nutritional status and body composition
    1.1 Family and individual history;
    1.2 Anthropometric measurements; anthropometric measures;
    1.3 Determination of water compartments with methodical BIA (bioelectrical impedance): Resistance, reactance, impedance and phase angle at 50 kHz frequency were measured using a BIA phase sensitive system
    1.4 Assessment of body composition:
        1.4.1 Measurement tricipitale folds, iliac and subscapular (Plicometry)
        1.4.2 Evaluation of body composition by DXA (dual energy X-ray absorbimetry) (i-DXA, GE Medical Systems, Milwaukee, WI, USA): determination of levels of total body lean mass (TBLean), total body fat mass (TBFat) and total body bone mass (TBBone): Appendicular Scheletar Muscle Mass Index determination;
    1.5 Nutritional survey of dietary habits (Food Frequency Questionnair, Simplified Nutritional Appetite Questionnaire, i.e. SNAQ questionnaire);
    1.6 Determination of energy expenditure (indirect calorimetry): respiratory quotients, basal metabolism, energy expenditure;
    1.7 Assessment of psychological profile and eating behavior;
2) Definition of phenotypes:
    2.1 Normal weight lean
    2.2 Normal weight obese, with or without metabolic syndrome
    2.3 Obese, with or without metabolic syndrome
    2.4 Underweight

Textbooks: Didactic material will be provided to the student.

Exam method: written exam; the student must achieve the following aims:
- to know the techniques and methods for defining the state of health and risk of disease, according to the nutritional status
- to know the indicators of nutritional risk predictors of disease
- to know the role of diet in the prevention of chronic degenerative diseases.