

PEDIATRIC FOOD AND NUTRITION (2026-2027)

Degree in Human Nutrition and Dietetics

Code: 803993

Type of subject: Compulsory

Course: Third

Semester: Second semester

Department: Pediatrics

Credits: 6 ECTS

FACULTY

Coordinator Professor: Dr. Andrés Bodas Pinedo (PA), abodas@pdi.ucm.es

Professors:

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BRIEF DESCRIPTION

The course consists of theoretical lessons that present knowledge of Pediatric Food and Nutrition, with a particular emphasis on nutritional aspects related to pediatric diseases and their treatment. Students will also acquire basic knowledge of typical pediatric diseases.

Student participation will be encouraged throughout the course, fostering their involvement in face-to-face classes and seminars, encouraging discussion and developing a capacity for response to different clinical situations.

It is considered very important for students to evaluate their professors through the Docentia Program.

COMPETENCIES

According to the module and subject to which this course belongs.

General competencies

CG.04, CG.05, CG.06, CG.13, CG.14, CG.15, CG.16, CG.17, CG.18, CG.19, CG.20, CG.21, CG.22, CG.23, CG.24, CG.31, CG.32 and CG.33.

Specific competencies

CEM3.01 and CEM3.02.

OBJECTIVES

-Acquisition by students of knowledge, theoretical and practical, applicable to the field of food and Pediatric Nutrition both individually and collectively.

-Know the specific nutritional needs throughout the different stages of the child's life.

-Identify the bases for healthy eating.

-Know the techniques for evaluating the nutritional status of the child and its interpretation.

-Deep into the knowledge of diseases specifically related to pediatric nutrition, especially those in which a certain diet can play a predominant role.

EDUCATIONAL OBJECTIVES:

- By the end of the academic year, students will have the knowledge and skills to guide and establish the necessary nutritional measures for children and adolescents affected by diseases, as well as to prevent those susceptible to illness, promoting their physical, psychological, and social well-being.

PROGRAM

THEORETICAL PROGRAM

Topic 1.- Importance of Food and Nutrition in Pediatrics.

Topic 2.- Assessment of nutritional status. Anthropometry and other assessment methods.

Topic 3.- Nutritional requirements and recommended intakes in infants.

Topic 4.- Functional foods, Prebiotics, Probiotics in Pediatrics.

Topic 5.- Breastfeeding. Physiology of lactation, characteristics of women's milk.

Topic 6.- Natural breastfeeding. Advantages, disadvantages and contraindications. Techniques, control and hygiene. Weaning. Mixed breastfeeding.

Topic 7.- Artificial breastfeeding.

Topic 8.- Complementary feeding of the infant.

Topic 9.- Nutrition of preschool and school children.

Topic 10.- Adolescent Nutrition.

Topic 11.- Nutrition and sport.

Topic 12.- Nutrition and Fetal growth.

Topic 13.- Nutrition of the Preterm Newborn.

Topic 14.- Inborn errors of carbohydrate metabolism: implications for nutrition.

Topic 15.- Inborn errors of lipid metabolism: implications for nutrition.

Topic 16.- Inborn errors of amino acid metabolism and disorders of the Urea Cycle: implications for nutrition.

Topic 17.- Special formulas.

Topic 18.- Mechanisms of digestion/absorption and malabsorption/intolerance of carbohydrates. Acute diarrhea and postgastroenteritis syndrome. Dietary aspects.

Topic 19.- Intolerance to cow's milk proteins. Dietary treatment.

Topic 20.- Permanent gluten intolerance. Celiac Disease. Dietary treatment. Other disorders associated with gluten ingestion.

Topic 21.- Cystic fibrosis. Dietary and pharmacological treatment of exocrine pancreatic insufficiency.

Topic 22.- Gastroesophageal reflux. Dietary treatment.

Topic 23.- Eating disorders. Anorexia nervosa. Bulimia Nervosa.

Topic 24.- Obesity.

Topic 25.- Diabetes Mellitus type I. Dietary treatment.

Topic 26.- Nutrition in children undergoing surgery.

Topic 27.- Hypercholesterolemia in Pediatrics.

Topic 28.- Nutrition of the oncological child.

Topic 29.- Nutrition and immunity.

Topic 30.- Nutrition in children with cardiological disease.

Topic 31.- Artificial feeding. Enteral nutrition.

Topic 32.- Artificial feeding. Parenteral Nutrition.

Topic 33.- Diagnostic approach to children with malnutrition.

PRACTICAL PROGRAM

- Assessment of nutritional status (practical cases)
- Nutrition in the first year of life (practical cases)
- Preterm feeding (practical cases)
- Nutrition of the child in special digestive situations (practical cases).
- Nutrition in children with inborn errors of metabolism (practical cases)
- Diabetes Mellitus and Nutrition in Childhood
- Artificial feeding techniques

EVALUATION

Continuous evaluation.

The maximum grade for the written tests will be 10. Students' attendance at the seminars will be mandatory. If they do not attend, they must duly notify it; the unjustified absence of 3 or more of them will cancel the rest of the attendance. The continuous evaluation of the seminars will be carried out by assessing the attendance and contribution of the students to the seminars. The seminars will be valued as long as the student has passed the written exam.

BIBLIOGRAPHY

Débora Setton, Adriana Fernández. Nutrición en Pediatría. Bases para la práctica clínica en niños sanos y enfermos. Editorial Panamericana. 2021.

Oscar Segarra Cantón, Susana Redecillas Ferreiro, Clemente Bautista. Guía De Nutricion Pediátrica Hospitalaria. Ergón. 2021.

Koletko B. Nutrición Pediátrica en la práctica clínica, Karger 2015.

Tratado de Nutrición y Alimentación. José Mataix Verdú. Océano Ergón Ediciones, 2013.

María Teresa MuñozCalvo, Lucrecia Suárez Cortina. Manual práctico de Nutrición en Pediatría. AEP Comité de Nutrición. Ergón. 2007.