

ACADEMIC YEAR 2023/2024

General information	
Academic subject	NUTRACEUTICALS, NUTRIGENOMICS AND FOOD MODELS (integrated exam of PRINCIPLES OF DIETETICS AND NUTRACEUTICALS)
Degree course	Foods of animal origin safety and health - (LM86)
Academic Year	2023/2024 – I year
European Credit Transfer and Accumulation System (ECTS)	6
SSD	Internal Medicine MED/09
Language	Italian
Academic calendar	II semester
Attendance	No

Professor/ Lecturer	
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Virtual headquarters	Skype o Teams (https://teams.live.com/j/community/FEAHsGiZEQJYjJdgl)
Tutoring (time and day)	From Monday to Friday agreed by email

Syllabus	
Learning Objectives	Acquire specific knowledge of the principles of nutraceuticals and nutrigenomics; know the molecular mechanisms and biochemical bases of action of nutraceuticals and their impact on human health. Acquire specific skills to be applied to the field of food and prevention.
Course prerequisites	Basic knowledge of biochemistry, physiology and hygiene of food.
Contents	<ul style="list-style-type: none"> - Definition of nutraceuticals, functional foods and food supplements - Italian and European legislation on nutraceutical products - Properties of substances and compounds present in foods of plant and animal origin and beneficial effects on human health. - Functional foods and effects on human health. - Role of nutraceutical substances in the prevention and therapy of muscular, cardiovascular, hepatic, metabolic, osteoarticular, nervous system and oncology diseases. - Pharmacokinetics and Pharmacodynamics of nutraceutical products. - Nutrigenomics definition and applications, definition of genomics, epigenetics and epigenomics - Nuclear receptors, mechanisms of action, notes on the general mechanisms of oncogenesis. - Intestinal microbiota: definition and clinical-pathological aspects - Probiotics and prebiotics: definitions and use in clinical practice in all age groups. - Dietary patterns compared: Mediterranean diet, ketogenic diet, vegetarian, fasting. - Medical-scientific communication in the field of prevention and nutrition
Books and bibliography	Alimentazione, Nutrizione e Salute. De Bellis, Poli Edises Università.

	La prevenzione è la via per la salute. Igiene, nutrizione e prevenzione per coltivare la salute quotidianamente D.Basta, Nova Delphi Academia. Dietetica e nutrizione: clinica e organizzazione, Fatati, G., Amerio, M. L., & Del Toma, E. Il pensiero scientifico, 2018.
Additional materials	

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
150	48		102
ECTS			
6	6		
Teaching strategy			
	Lectures with multimedia aid (slides, articles from medical-scientific journals, national and international regulations)		
Expected learning outcomes			
Knowledge and understanding on:	Apply the knowledge gained in the context of nutraceuticals, nutrigenomics and clinical nutrition.		
Applying knowledge and understanding on:	Critical ability in understanding and evaluating dietary patterns appropriate to maintain the state of health in different stages of life and in specific pathological states.		
Soft skills	Adequate development of knowledge communication skills and skills related to the topics covered in the course.		

Assessment and feedback	
Methods of assessment	Oral Exam
Evaluation criteria	Evaluation of the ability to expose in a clear way and with appropriate language the knowledge concerning the contents of the course. Evaluation of the ability to grasp the key elements of the various topics and to use the information learned by making appropriate correlations for the understanding of the questions posed and for the management of the answers.
Criteria for assessment and attribution of the final mark	The final grade is assigned in thirtieths. The exam is passed when the mark is greater than or equal to 18
Additional information	