



UNICUSANO

Università degli Studi Niccolò Cusano - Telematica Roma

Course	SPORTS ENDOCRINOLOGY
Main language of instruction	Italian
Other language of instruction	English
Italian Code	MEDS-08/A - ENDOCRINOLOGY
Academic Year	2025-2026
ECTS (Credits)	6
Propaedeuticity	/
Head Professor	Emanuela Greco EMAIL: emanuela.greco@unicusano.it
Presentation	The course of Sports Endocrinology provides the concepts of hormone, hormone-receptor interaction, gland with endocrine activity and cell-cell communication. The main hormones and their biological functions, the functioning of the main endocrine glands, their regulation mechanisms in basal conditions and in response to physical exercise are analyzed. The effects of training and overtraining on the endocrine system are addressed. The interactions between the endocrine system and sporting activity in relation to gender and age are addressed. The main endocrine and metabolic pathologies in relation to sporting activity are addressed. The main pathophysiological aspects of hormone doping are addressed.
Objectives	<ul style="list-style-type: none"> • Know and be able to describe the treated endocrine glands, their functions, the hormones secreted and their regulatory mechanisms. • Know the functions and biological effects of the hormones treated. • Know the role of the neuroendocrine system in acute and chronic responses to physical exercise. • Know the effects of training and overtraining on the endocrine system. • Know the interactions between the endocrine system and physical exercise in relation to age. • Know the main endocrine-metabolic pathologies in relation to sporting activity. • Know the main pathophysiological aspects of hormone doping.
Expected Learning Outcomes and Competencies	<p>KNOWLEDGE AND UNDERSTANDING: the student will have acquired the knowledge and ability to understand the principles relating to general endocrinology and endocrinology applied to physical exercise in normal conditions and in the presence of endocrine pathology.</p> <p>APPLICATION OF KNOWLEDGE AND UNDERSTANDING: the student will be able to apply the knowledge acquired in daily practice, within the limits of their responsibilities and skills.</p> <p>MAKING JUDGEMENTS: the student will achieve his own autonomy of evaluation regarding the endocrine system and its implications in the management of physical activity in normal conditions and in the presence of endocrine pathology.</p> <p>COMMUNICATION SKILLS: the student will have acquired a specific language with respect to the teaching area and the essential communication skills to interface with the target audience.</p> <p>LEARNING SKILLS: the student will be able to use, in daily practice, the knowledge acquired to work adequately with the target audience, within the limits of their responsibilities and skills.</p>
Organization	<p>The Sports Endocrinology course includes 6 ECTS (credits) - which correspond to a study load of at least 150 hours by the student - and is developed through pre-recorded audio-video lessons, slides and handouts. The study materials, which are available on the platform, contain all the elements necessary to study the subject in view of the exam. Furthermore, for even more detailed preparation we recommend consulting the texts indicated below.</p> <p>The study load includes at least the following components:</p>

	<ul style="list-style-type: none"> • 120 hours of course for viewing and studying the pre-recorded lessons (for a total of 18 hours of video-recorded lessons); • 30 hours of interactive teaching on the forum (virtual classroom) aimed at carrying out exercises and exercises proposed by the professors, called e-tivity (n.1). <p>Finally, synchronous tools will be used – such as web-conference reception and chats available on the platform – in order to allow real-time interaction with enrolled students.</p> <p>The student is advised to distribute the study of the subject evenly over a 12-week period, dedicating at least 12 hours a week to studying.</p>
Course contents	<p>Syllabus (Italian)</p> <ul style="list-style-type: none"> • SUBJECT 1 – Principles of General Endocrinology (part one). • SUBJECT 2 – Principles of General Endocrinology (second part). • SUBJECT 3 – Principles of General Endocrinology (third part). • SUBJECT 4 – Hormones and physical exercise. • SUBJECT 5 – Main endocrine-metabolic pathologies and physical exercise. • SUBJECT 6 – Hormonal doping. <p>Pre-recorded video lessons by the professor divided into 6 subjects (Italian)</p> <p>Teaching support materials by the professor (syllabus, slides, scientific papers) (Italian/English)</p> <p>Recommended Italian and English texts for further information:</p>
	<p><i>Endocrinologia e attività motorie - di Andrea Lenzi, Gaetano Lombardi, Enio Martino, Francesco Trimarchi. Elsevier 2008.</i></p> <p><i>Endocrinologia e Malattie del Metabolismo. IV edizione. Dario Giugliano. Idelson-Gnocchi 2020.</i></p> <p><i>Endocrinology of Physical Activity and Sport - 3rd Edition by Anthony C. Hackney and Naama W. Constantin. Springer Nature 2020. ISBN: 9783030333768.</i></p>
Evaluation System and Criteria	<p>The examination consists of:</p> <ul style="list-style-type: none"> - A written test. It includes 30 multiple choice questions which concern the entire course program. Each of the 30 multiple choice questions relating to the contents of the exam program is assigned a value of 1 point. The written test will be <u>ONLY</u> in ITALIAN LANGUAGE. <p>OR</p> <ul style="list-style-type: none"> - An oral test. It consists of an interview aimed at ascertaining the student's level of preparation. The latter normally consists of 3 questions which concern the entire course program, each question has equal dignity and therefore a maximum mark of 10+. The oral test will be in ITALIAN <u>OR</u> in ENGLISH <u>for students who request it.</u> <p>In both exam methods, particular attention in evaluating the answers is given to the student's ability to rework, apply and present the material present on the platform with correct language.</p> <p>During the final evaluation, the fruitful participation in the forums (virtual classrooms) and the correct carrying out of the proposed e-tivity will also be taken into account.</p>