



# UNIVERSITÀ DEGLI STUDI DI PALERMO

<b>DEPARTMENT</b>	Scienze Psicologiche, Pedagogiche, dell'Esercizio Fisico e della Formazione		
<b>ACADEMIC YEAR</b>	2017/2018		
<b>MASTER'S DEGREE (MSC)</b>	SCIENCE OF PREVENTIVE AND ADAPTED PHYSICAL ACTIVITY AND SPORT PERFORMANCE		
<b>SUBJECT</b>	FOOD INTEGRATION, DRUGS AND DOPING IN SPORTS		
<b>TYPE OF EDUCATIONAL ACTIVITY</b>	D		
<b>AMBIT</b>	20734-A scelta dello studente		
<b>CODE</b>	17530		
<b>SCIENTIFIC SECTOR(S)</b>	BIO/10		
<b>HEAD PROFESSOR(S)</b>	PROIA PATRIZIA	Professore Associato	Univ. di PALERMO
<b>OTHER PROFESSOR(S)</b>			
<b>CREDITS</b>	4		
<b>INDIVIDUAL STUDY (Hrs)</b>	73		
<b>COURSE ACTIVITY (Hrs)</b>	27		
<b>PROPAEDEUTICAL SUBJECTS</b>			
<b>MUTUALIZATION</b>			
<b>YEAR</b>	2		
<b>TERM (SEMESTER)</b>	1° semester		
<b>ATTENDANCE</b>	Not mandatory		
<b>EVALUATION</b>	Out of 30		
<b>TEACHER OFFICE HOURS</b>	<b>PROIA PATRIZIA</b> Thursday 10:00 13:00 Via Pascoli, 6 Secondo piano		

DOCENTE: Prof.ssa PATRIZIA PROIA

<b>PREREQUISITES</b>	Basal Knowledge of biochemistry applied to sport
<b>LEARNING OUTCOMES</b>	<p>Knowledge and understanding: Knowledge acquisition concerning the role Food and Drug Administration in the health of the organism. Ability to use the specific language right in that discipline.</p> <p>Ability in implementing knowledge and understanding: gain the ability to integrate acquired knowledge to a critical approach and an attitude oriented towards research in the physiological range, drug and nutrition.</p> <p>Judgement autonomy: Be able to formulate personal judgments for analytical problems</p> <p>solve own discipline and be able to independently search for scientific information.</p> <p>Communicative skills: being able to communicate clearly and without ambiguity to interlocutors</p> <p>specialists and non-specialists (medical staff, or customer), the prognostic significance of</p> <p>nutritional disorders as well as the substances considered "doping" in sports.</p> <p>Learning skills: ability to update their knowledge in the field of prevention and nutrition in sport, by consulting scientific publications and participating in advanced courses and workshops.</p> <p>It will also be detailed knowledge of substances considered "doping" in sports.</p>
<b>ASSESSMENT METHODS</b>	<p>Written test. The exam consists in a 5 question multiple choice test, plus an additional 2 question open test. It aims at verifying students' acquisition of the basic knowledge of the topics covered during the course. The questions are structured so as to allow students to formulate their answers through the possibility to compare the submitted answers. In order to get the passing grade it is necessary to achieve the evaluation of 18 on 30. The assessment has a final grade included in the following range: 30-30 with honours (excellent), corresponding to 'excellent knowledge of topics, excellent use of language, good analytical skills, the student can implement his/her knowledge to solve the submitted issues'; 26-29 (very good), 'good mastery of topics, very good use of language, the student can implement his/her knowledge in order to solve the submitted issues'; 24-25 (good), corresponding to 'basic knowledge of the main topics, fair use of language, with moderate capability to independently implement knowledge to solve the submitted issues'; 21-23 (satisfactory), 's/he doesn't possess full mastery of the main teaching topics but s/he possesses knowledge of them, satisfactory use of language, poor capability to independently implement the acquired knowledge'; 18-20 (passing grade), 'very poor basic knowledge of both the main teaching topics and the technical language, no or very poor capability to independently implement the acquired knowledge'; unsatisfactory, 's/he doesn't possess an acceptable knowledge of the contents of the topics dealt with during the course'.</p>
<b>EDUCATIONAL OBJECTIVES</b>	<p>The course provides basal knowledge in nutrition in order to maintain health and avoid deficiency diseases and overeating. Particular attention will be given to the study of</p> <p>composition of foods, the deputies mechanisms at its</p> <p>control and the relationship between physical activity and nutrition, as well as the integration in the elite athlete and not, and doping agents and their effects.</p>
<b>TEACHING METHODS</b>	Frontal Lectures
<b>SUGGESTED BIBLIOGRAPHY</b>	<p>Alimentazione e nutrizione umana-Mariani Costantini, Cannella, Tomassi; Il pensiero Scientifico Editore-009</p> <p>Integrazione e doping. Dario Donno</p> <p>Farmaci e sport.D. R. Mottran. Edizione italiana a cura di D.E. Pellegrini-Giampietro. Milano: Casa Editrice Ambrosiana, 2005</p>

## SYLLABUS

Hrs	Frontal teaching
2	The nutraceutical, food or drugs, novel foods and GMOs, enriched foods, lighter foods, functional foods, food components with functional role: probiotic and symbiotic. Genetically modified foods and risks.
2	Lipid nutrients, plastics and energy functions, essential fatty acids, deficiencies, cholesterol functions, digestion and absorption, protein nutrients, classification of amino acids, functions, protein metabolism, nutritional value of proteins, ideal protein. Quality of a protein, chemical methods of determination, leucine and protein synthesis, branched chain amino acids, water, how to manage the hydration, importance of nutrients in sport, vegetarians and needs, nutrition for a person who practice competitive sports, amateur and fitness .
3	Drugs, drug source, drugs and exercise modulation of the muscle cell, inflammatory Drugs, The role of vitamins in sport, Drugs and therapeutic needs, risk/benefit ratio of drugs
2	Supplements, classification of food supplements adapted for intense muscular effort, effects of the supplements on the performance, adverse reactions to dietary supplements, mechanisms and consequences of dehydration on performance and health

## SYLLABUS

Hrs	Frontal teaching
5	Definition of doping, the Epidemiology of doping at a professional level, amateur level and among adolescents, Classification of substances and doping methods, Mechanisms of action of performance-enhancing drugs, effects on sports performance of the various performance-enhancing drugs, adverse reactions of doping agents, Italian law on doping, antidoping controls. TUE
4	Doping agents used by athletes. Anabolic androgenic steroids. Synthesis and action. Receptors and modulators. Clinical uses and side effects.
3	Effects of AAS on body composition, muscle mass, cardiovascular system, lipoprotein metabolism, case reports
3	Diuretics. Renal function. Diuretic categories. Diuretics and sports. Thermoregulation and effects on the muscular level.
4	Glucocorticoids. Mechanism of action. Prostaglandins. NSAIDs. Effect on the metabolic level. Stimulants. Side effects. Stimulants and sports. Cocaine. Amphetamines. Ephedrine. Caffeine.