



# UNIVERSITÀ DEGLI STUDI DI PALERMO

<b>DEPARTMENT</b>	Scienze Psicologiche, Pedagogiche, dell'Esercizio Fisico e della Formazione		
<b>ACADEMIC YEAR</b>	2024/2025		
<b>BACHELOR'S DEGREE (BSC)</b>	PHYSICAL EDUCATION AND SPORT SCIENCES		
<b>INTEGRATED COURSE</b>	SPORTS MEDICINE - INTEGRATED COURSE		
<b>CODE</b>	09424		
<b>MODULES</b>	Yes		
<b>NUMBER OF MODULES</b>	2		
<b>SCIENTIFIC SECTOR(S)</b>	MED/42, MED/09		
<b>HEAD PROFESSOR(S)</b>	LO PRESTI ROSALIA	Professore Associato	Univ. di PALERMO
<b>OTHER PROFESSOR(S)</b>	LO PRESTI ROSALIA TABACCHI GARDEN	Professore Associato Ricercatore a tempo determinato	Univ. di PALERMO Univ. di PALERMO
<b>CREDITS</b>	9		
<b>PROPAEDEUTICAL SUBJECTS</b>			
<b>MUTUALIZATION</b>			
<b>YEAR</b>	3		
<b>TERM (SEMESTER)</b>	1° semester		
<b>ATTENDANCE</b>	Not mandatory		
<b>EVALUATION</b>	Out of 30		
<b>TEACHER OFFICE HOURS</b>	<p><b>LO PRESTI ROSALIA</b>            Wednesday 12:00 - 13:00 In videocomunicazione nel team "Lo Presti - ricevimento studenti" tramite il seguente link:<a href="https://teams.microsoft.com/l/team/19%3a7ea36b9decef4f75872b17fdb5d064c7%40thread.tacv.conversations?groupId=130083c8-0c83-4751-8397-c34b149b3796&amp;tenantId=bf17c3fc-3ccd-4f1e-8546-88fa851t">https://teams.microsoft.com/l/team/19%3a7ea36b9decef4f75872b17fdb5d064c7%40thread.tacv.conversations?groupId=130083c8-0c83-4751-8397-c34b149b3796&amp;tenantId=bf17c3fc-3ccd-4f1e-8546-88fa851t</a></p> <p><b>TABACCHI GARDEN</b>            Friday 11:00 - 13:00 Via Pascoli 6, 2° piano</p>		

DOCENTE: Prof.ssa ROSALIA LO PRESTI

<b>PREREQUISITES</b>	Knowledge of exercise physiology and anatomy.
<b>LEARNING OUTCOMES</b>	<p>Knowledge and understanding: knowledge and understanding of human body functional and structural adaptations to physical exercise and sport activity; ability to assess the risk of pathological events in sport practice, with reference to internal medicine and neurology.</p> <p>Applying knowledge and understanding: ability to gain a comprehensive view of the effects produced by physical exercise and sport activities on body organs and systems; ability to identify symptoms and signs aiding in the diagnosis and prevention of sport-related diseases; knowledge of sport-related benefits and risks.</p> <p>Making judgements: ability to evaluate the indications and contraindications to physical exercise and sport activities, showing critical scientific awareness.</p> <p>Communication: capacity to deliver the acquired knowledge adapting the way of communication to different audiences.</p> <p>Lifelong learning skills: development of the skills necessary to update knowledge by means of scientific publications specific to the professional setting and using the Internet; capacity for further learning with a high degree of autonomy.</p> <p>Compensatory tools and dispensatory measures will be guaranteed by the Disability and Neurodiversity Center - University of Palermo (Ce.N.Dis.) to students with disabilities and neurodiversity, based on specific needs and in implementation of current legislation.</p>
<b>ASSESSMENT METHODS</b>	<p>The exam includes a written exam about the Neurology module, followed by an oral exam about the Sports Medicine module. The exam is aimed at verifying the competences and skills to be acquired at the end of the course. The purpose of the questions is to verify knowledge of contents to be acquired at the end of the course, as well as analytical and expository skills. Knowledge check includes scrutiny of the capability to establish relationships between contents, theories, patterns and methodologies which have been an object of study during the course. As far as analytical skills are concerned, check will aim at verifying that the student has achieved at least one of the following goals: - make judgements and opinions about the disciplinary contents - understand applications and/or implications of the disciplinary contents within the specific discipline of reference - set the disciplinary contents within the professional, technological and sociocultural setting of reference. The student will have to answer at least two/three questions in the oral form about aspects of the syllabus with reference to the suggested textbooks. The exam aims at verifying knowledge and understanding of topics, interpretative competence and autonomy of judgement of concrete cases. The passing grade threshold will be considered reached if the student shows to have acquired the topics of the specific subject matter and is able to solve specific concrete cases as well as to correctly convey knowledge with satisfactory expository skills. Below the above-mentioned threshold, the exam will be considered unsatisfactory. The more the student can interact with his examiner showing mastery of language, of the specific subject matter and ability to convey his/her knowledge of the topics of the specific field of reference, the more the assessment will be positive. The latter will be expressed by 18 to 30-30 with honours marks.</p> <p>Compensatory tools and dispensatory measures will be guaranteed by the Disability and Neurodiversity Center - University of Palermo (Ce.N.Dis.) to students with disabilities and neurodiversity, based on specific needs and in implementation of current legislation.</p>
<b>TEACHING METHODS</b>	Frontal lessons

## MODULE HYGIENE

*Prof.ssa GARDEN TABACCHI*

### SUGGESTED BIBLIOGRAPHY

- Igiene e medicina preventiva. Vol. 1 e Vol. 2. Barbuti, Fara, Giammanco. Editore: Monduzzi.
- Jekel's Epidemiology, Biostatistics, Preventive Medicine, and Public Health Paperback – 13 March 2020, by Joann G. Elmore MD MPH et al. (available also in Kindle edition).
- Igiene e Sanita Pubblica per Scienze motorie a cura di G. Brandi, G. Liguori, V. Romano Spica, Antonio Delfino Editore.
- Materiale didattico utilizzato in sede di lezione.

<b>AMBIT</b>	10683-Attività formative affini o integrative
<b>INDIVIDUAL STUDY (Hrs)</b>	54
<b>COURSE ACTIVITY (Hrs)</b>	21

### EDUCATIONAL OBJECTIVES OF THE MODULE

The course aims to provide the student with basic knowledge on the concepts of health and disease, on the epidemiological methodologies used to study diseases, and on prevention strategies against the main infectious and chronic-degenerative diseases. The student, based on basic microbiological knowledge, will be able to recognize the most suitable interventions for the prevention of infectious diseases, including active and passive immunoprophylaxis and disinfection and sterilization techniques. It will also be able to classify the different infectious diseases based on the route of transmission. The student will also know the risk factors of chronic-degenerative diseases, learning to modify potentially incorrect lifestyles in daily life for the purposes of prevention.

## SYLLABUS

Hrs	Frontal teaching
1	<ul style="list-style-type: none"> <li>• Presentation of the course</li> <li>• General information and definitions               <ul style="list-style-type: none"> <li>- Definition and purposes of hygiene.</li> <li>- Definition of health and disease; general information on chronic-degenerative and infectious diseases.</li> <li>- Prevention: primordial, primary, secondary, tertiary, quaternary.</li> <li>- Definition of risk, causal, protective and confounding factors.</li> </ul> </li> </ul>
1	<ul style="list-style-type: none"> <li>• Epidemiology, demography, health indicators and measures               <ul style="list-style-type: none"> <li>- Epidemiology and demography: definitions; epidemiological data; data sources; data collection; graphical representation of the data.</li> <li>- Health indicators and main measures of disease frequency: ratios, proportions, rates, indices; prevalence and incidence.</li> <li>- Epidemiological studies: Observational studies – descriptive, analytical and ecological; Experimental – clinical and preventive studies; Reviews and meta-analyses.</li> </ul> </li> </ul>
1	<ul style="list-style-type: none"> <li>• Infectious diseases: microbiology, transmission, diffusion               <ul style="list-style-type: none"> <li>- Elements of medical and environmental microbiology: structure and classification of microorganisms.</li> <li>- The chain of infections: infectious agent, reservoir/source, exit port, transmission routes, entry port and final host.</li> <li>- Sporadic, endemic, epidemic, pandemic disease.</li> </ul> </li> </ul>
3	<ul style="list-style-type: none"> <li>• Infectious diseases: prevention               <ul style="list-style-type: none"> <li>- Prevention objectives and interventions.</li> <li>- Active immunoprophylaxis: vaccines-definition, classification, development; vaccine-preventable diseases; objectives and strategies of vaccination - control, elimination and eradication of infectious diseases; e.g. of smallpox; the vaccination calendar; contraindications and adverse effects.</li> <li>- Passive immunoprophylaxis.</li> <li>- Sterilization, disinfection, disinfestation: sterilization with physical, chemical, mechanical means; disinfection with natural, mechanical, chemical means; the practice of disinfection; hand hygiene; disinfestation: integral; insecticides; rat pesticides; sterilization and disinfection techniques.</li> </ul> </li> </ul>
4	<ul style="list-style-type: none"> <li>• Infectious diseases: classification, epidemiology, risk factors and specific prevention               <ul style="list-style-type: none"> <li>- Classification</li> <li>- Airborne infectious diseases (measles, tuberculosis, influenza); focus on COVID-19.</li> <li>- Parenterally transmitted infectious diseases: sexually transmitted diseases - STDs (Chlamydia, Syphilis, HPV genital warts); HIV infection and AIDS; Hepatitis B, Hepatitis C.</li> <li>- Infectious diseases with fecal-oral transmission.</li> <li>- Infectious diseases in pregnancy and early childhood.</li> </ul> </li> </ul>
3	<ul style="list-style-type: none"> <li>• Food hygiene               <ul style="list-style-type: none"> <li>- Food hygiene and food safety</li> <li>- Biological contamination: foodborne diseases (MTA): routes of contamination; epidemiology and prevention; of viral origin (Hepatitis A, Rotavirus gastroenteritis); of bacterial origin (botulinum poisoning; Salmonella, Campylobacter infections; Clostridium perfringens, Escherichia coli O157:H7 infections); by parasites (Taenia saginata, Tenia Solium); from n</li> <li>- Notes on chemical and physical contamination.</li> </ul> </li> </ul>

4	<ul style="list-style-type: none"> <li>• Non-communicable diseases: epidemiology, risk factors</li> <li>- General information, epidemiology, risk factors</li> <li>- External and domestic environmental air pollution.</li> <li>- Tobacco smoking: epidemiological data on smoking in the world, in Europe and in Italy; harmful effects of smoking; prevention strategies (MPOWER).</li> <li>- Physical inactivity: epidemiological data and strategies.</li> <li>- Alcohol: definitions and recommendations; epidemiological data on alcohol consumption in the world, in Europe and in Italy; harmful effects of alcohol; prevention strategies.</li> <li>- Drugs: types of drugs; epidemiology of drug use in the world, in Europe and in Italy; health effects; risk factors; strategies.</li> <li>- Incorrect nutrition.</li> </ul>
1	<ul style="list-style-type: none"> <li>• Nutrition hygiene:</li> <li>- Correct nutrition: the Mediterranean diet; nutritional errors of the population; food pyramids; needs and recommendations; the LARNs, the guidelines; weight status and nutritional status.</li> <li>- Nutrition as a risk factor for: cardiovascular diseases, tumors, type II diabetes.</li> </ul>
2	<ul style="list-style-type: none"> <li>• Non-communicable diseases: epidemiology, specific risk factors and prevention</li> <li>- Cardiovascular diseases: typologies, epidemiological data, projects/strategies</li> <li>- Obesity: epidemiological data in the world, in Europe and in Italy; surveillance systems; strategies.</li> <li>- Diabetes: epidemiological data, risk factors, strategies.</li> <li>- Tumors: epidemiological data in the world, in Europe and in Italy; risk factors; strategies.</li> <li>- Respiratory system diseases: characteristics, epidemiological data, strategies; COPD, asthma, sleep apnea syndrome, pulmonary fibrosis and emphysema, occupational lung diseases.</li> </ul>

Hrs	Practice
1	Revision of the programme and exercise session.

## MODULE SPORTS MEDICINE

*Prof.ssa ROSALIA LO PRESTI*

### SUGGESTED BIBLIOGRAPHY

P. Zeppilli. Manuale di Medicina dello Sport. Casa Editrice Scientifica Internazionale  
Materiale fornito dal docente

<b>AMBIT</b>	50103-Medico-clinico
<b>INDIVIDUAL STUDY (Hrs)</b>	108
<b>COURSE ACTIVITY (Hrs)</b>	42

### EDUCATIONAL OBJECTIVES OF THE MODULE

At the end of the course, the student will be able to distinguish physiological adaptations to physical exercise from pathological conditions able to interfere with physical effort and involving cardiovascular, respiratory and endocrine systems, metabolism, blood, bones and joints. Moreover, the student will have acquired basic knowledge about the principal diseases of cardiovascular and respiratory systems that can be provoked by physical exercise.

## SYLLABUS

Hrs	Frontal teaching
2	Introduction to Sports Medicine. Energy metabolism during exercise
2	Anatomy and physiology of the cardiovascular system. Cardiovascular adaptations to physical exercise
2	Classification of physical, sport and gym activities according to the COCIS guidelines and protocols
2	The normal electrocardiogram and arrhythmias
2	Arterial hypertension. Ischemic heart disease
4	Cardiomyopathies
2	Ion channel disease. Sport-related sudden cardiac death
2	Congenital heart disease. Acquired valvular heart disease. Myocarditis
2	Heart failure
2	Anatomy and physiology of the respiratory system. Respiratory adaptations to physical exercise
4	Asthma and exercise-induced bronchoconstriction
2	Chronic obstructive pulmonary disease. Pneumothorax
2	Cardiopulmonary exercise test
6	Metabolic diseases. Diabetes mellitus
4	Blood and the immune system. Sport-related anemia
2	Shock: causes and clinical forms