COURSE OF STUDY Attività Motorie e Sportive

ACADEMIC YEAR 2023/2024

ACADEMIC SUBJECT Sport Medicine

General information	
Year of the course	III Year
Academic calendar (starting and ending date)	*II Term*
Credits (CFU/ETCS):	*1 CFU*
SSD	*MED/09*
Language	*Italian*
Mode of attendance	*Not Mandatory*

Professor/ Lecturer	
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Department and address	*Medicina Interna "G. Baccelli"Azienda Ospedaliero-Universitaria Policlinico di Bari*
Virtual room	*https://teams.microsoft.com/l/channel/19:FnL0w0n9Z6KjF3xMcK9efsKVxzT5B8ncHKys9HR2EHI1@thread.tacv2/Generale?groupId=d8d91aba-0e16-4f9b-bc9d-3efdce5b45eb&tenantId=c6328dc3-afdf-40ce-846d-326eead86d49*
Office Hours (and modalities: e.g., by appointment, on line, etc.)	*Fridays from 14:30 to 15:00 by appointment*

Work schedule			
Hours			
Total	Lectures	Hands-on (laboratory, workshops, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
40	*10*		*30*
CFU/ETCS			
1	*1*		

Learning Objectives	Understand the physiological and anatomical-functional principles of the human body human body, with particular emphasis on the cardiovascular, respiratory respiratory, and musculoskeletal systems. Analysing the effects of exercise on general health and vital vital functions. Assessing physical fitness for sporting activities, considering pre-existing medical conditions and potential risks. Acquire knowledge on the management and prevention of common medical common medical conditions that may affect the practice of sport. Develop skills in the use of physical assessment tools and diagnostic tests to assess sports fitness.
Course prerequisites	Basic knowledge of human anatomy and physiology.

	Familiarity with internal medicine concepts and common pathologies. Fundamentals of anatomy and physiology applied to exercise. Exercise physiology: cardiovascular, respiratory and muscular adaptations. Sport fitness assessment: physical tests, body composition assessment, and body composition, and functional analysis. Main medical and sports diseases: diabetes, hypertension, heart disease, asthma, muscular and skeletal injuries. Management of medical emergencies in sport. Role of internal medicine in health promotion and in the optimisation of sports performance

Teaching strategie	Lectures: Master presentations by instructors for provide an in-depth overview of theoretical concepts and fundamental knowledge in internal medicine and other topics specialist. Case studies: Analysis of real or simulated clinical cases to apply the theoretical knowledge to practice and develop problem skills solving and decision making clinical. Practical workshops: Practical sessions in the laboratory to learn and put into practice the techniques of physical evaluation, diagnostic tests and medical emergency management in sport. Seminars and guided discussions: Interactive meetings where students can discuss and deepen specific topics, focusing on controversial or emerging issues in internal medicine applied to sport. Visits to the clinic or hospital: Opportunity for students to observe and actively participate in clinical activities in real contexts, collaborating with internist doctors and other health professionals. Research projects: Research project assignments for deepen specific topics related to internal medicine and sport practice, encouraging students to develop critical research and analysis. Problem-solving based learning: Activities that involve practical problem solving and decision making based on complex clinical cases, encouraging the development of practical and decision-making skills. Use of multimedia resources: Integrate audiovisual materials, virtual simulations, and online resources to enrich the experience of learning and providing visual support to theoretical concepts.
Expected learning outcomes in terms of	
Knowledge and understanding on:	Students will acquire an in-depth knowledge of the physiological and anatomical-functional principles of the human body, with a focus specific focus on the cardiovascular, respiratory musculoskeletal and other systems related to internal medicine. They will be able to understand the most common medical pathologies that may affect the practice of sport, as well as their effects on the physical fitness and performance of athletes
Applying knowledge and understanding on:	Students will be able to apply their knowledge theoretical knowledge to assess the physical fitness and sporting ability of individuals, considering pre-existing medical conditions pre-existing conditions and associated risks. They will be able to interpret and analyse the results of the physical assessment and diagnostics, and will be able to make practical and personalised recommendations to optimise the health and physical performance of athletes

Soft skills	*Students will develop transversal skills in the area of of interprofessional communication, collaborating effectively with other health professionals and members of the sports team members to ensure an integrated and individualised management of athletes. They will be able to communicate clearly and empathetically with athletes and other individuals involved in decision decision-making process, providing health information, injury prevention of injuries and optimising sports performance.*
Syllabus	
Content knowledge	*Introduction to internal medicine applied to sport:* *Internal medicine concepts and their relevance to sports fitness.* *Role of the sports physician and internist in the assessment of physical fitness.* *Anatomy and physiology applied to exercise:* *Basic principles of human anatomy and physiology, with emphasis on the cardiovascular, respiratory and musculoskeletal systems.* *Physiological adaptations during exercise and training.* *Sports fitness assessment:* *Methods and tools for physical and functional assessment.* *Cardiorespiratory endurance tests, muscle strength, flexibility and body composition.* *Interpretation of test results and their application to sports practice.* *Common medical pathologies and implications for exercise* *exercise: Diabetes mellitus, hypertension, heart and respiratory diseases, dyslipidemia.* *Nutritional and metabolic aspects related to exercise.* *Approach to the management of pre-existing medical* *pre-existing medical conditions in the context of sporting activity.* *Muscular and skeletal injuries:* *Major muscular and skeletal injuries related exercise-related injuries.* *Prevention, diagnosis and treatment of acute and chronic injuries.* *chronic injuries.* *Medical emergencies in sport:* *Identification and management of medical emergencies during sporting activity.* *Role of the sports physician and internist in emergency situations.* *emergency situations.* *Interdisciplinary approach to health and well-being:* *Collaboration between sports physicians, internists, physiotherapists, nutritionists and other health professionals.* *Health promotion and disease prevention through exercise and active lifestyle.* *Additional internist topics:* *Haematological topics: Deficiency anaemia, sports anaemia, coagulopathies.* *Dermatological topics: Chafing dermatitis, skin infections, photosensitivity* *skin infections, photosensitivity.* *Cardiological topics: Cardiac arrhythmias, cardiomyopathies, cardiovascular risk assessment.*

	Immunological topics: Exercise-related immunodeficiencies physical activity, risk of infection. Nephrological topics: Dehydration, acute renal failure, assessment of renal function. Hepatological topics: Implications of exercise on liver function, risk of hepatitis. liver function, risk of viral hepatitis.
Texts and readings	*(Netter Clinical Science) Christopher Madden, Margot Putukian, Eric McCarty, Craig Young - Netter's Sports Medicine-Elsevier (2018)*
Notes, additional materials	*Harrison 2021 - Principi di Medicina Interna.*
Repository	*Lecture presentations, clinical cases and other materials: will be made available on the virtual classroom platform Teams, accessible to students enrolled in the course. Students are recommended to log in regularly to consult and download lecture-related materials.* *Reference texts:* *Netter's Sports Medicine by Christopher Madden, Margot Putukian, Eric McCarty, Craig Young (2018): Available from the university library or in electronic format. Students are advised to check availability via the library catalogue or other means provided by the institution.* *Principles of Internal Medicine (2021 edition) by Harrison: A digital version of the text will be provided to students enrolled in the course, accessible via the university's online platform. Students are advised to check their institutional email for instructions on how to access the text.* *Other supplementary materials:* *Any scientific articles, clinical guides or online resources will be shared via the Teams virtual class platform or other modalities indicated by the lecturer during the course.* *Please note that, in accordance with AVA3 standards, teaching materials will be made available for at least three years after teaching in order to allow students to access them for study and revision purposes.*

Assessment	
Assessment methods	*Oral Exam*
Assessment criteria	*Assessment criteria for the expected learning outcomes* *Knowledge and comprehension skills:* *Ability to discursively organise knowledge: The student should demonstrate a sound understanding of the physiological and anatomo-functional principles of the human body, as well as common medical pathologies that affect sports practice. The student's ability to set out theoretical concepts clearly and logically and to provide comprehensive explanations will be assessed.* *Proficiency in the use of specialist vocabulary: The student's ability to use accurate and appropriate technical terminology to describe anatomical, physiological and pathological concepts relating to internal medicine applied to sport will be assessed.* *Applied knowledge and understanding:* *Critical reasoning skills: The student's ability to apply acquired theoretical knowledge to assess the physical fitness of individuals and to make practical, personalised recommendations will be assessed. It will be important to demonstrate logical and critical reasoning in interpreting the results of physical assessment and diagnostic tests. Exposure quality and effectiveness: Consider the student's ability to communicate in a clear, effective and structured way the practical applications of theoretical knowledge. It will also evaluate the effectiveness of the recommendations provided to optimize the health and physical*

	performance of athletes. *Autonomy of judgment:* *ability to evaluate and synthesize information: The student's ability to collect, interpret and synthesize relevant data and information to assess the physical fitness and sports performance of individuals will be evaluated. Consider † the ability to make informed decisions and critically judge the available evidence.* *Communication skills:* *Effectiveness in communication: The student's ability to communicate clearly, empathetically and effectively with athletes and other members of the sports team will be evaluated. Consideration should be given to the ability to transmit health information, injury prevention and optimisation of sports performance in a way that is comprehensible and adapted to the target audience.* *ability to learn:* *Lifelong learning skills: It will assess the student's ability to demonstrate a commitment to continue to develop their knowledge and skills in the field of internal medicine applied to sport. Will evaluated the openness to constructive criticism, the willingness to reflect on their own learning and actively seek new information and training opportunities.*
Final exam and grading criteria	*The student must demonstrate knowledge of the topics under study and have understood the issues related to them, as well as to have reached a level of knowledge to develop independently interpretative arguments* *1) Failure to pass the test: insufficient knowledge of the course contents, insufficient evaluation and reasoning skills, lack of basic knowledge.* *2) 18 to 21: sufficient or barely sufficient preparation; minimum knowledge of the institutions and of the problems tackled during the course; presence of minor gaps;* *3) 22 to 24: average preparation characterized by no particular deepening and by gaps that can be filled in the continuation of the overall training;* *4) 25 to 27: generally good preparation even if not particularly thorough; technical language and adequate expressive ability;* *5) 28 to 30: excellent or excellent preparation; precise and precise technical language and expressive ability;* *6) 30 e lode: preparation, technical language, expressive and argumentative skills of the highest level*
Further information	
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