



UNICUSANO

Università degli Studi Niccolò Cusano - Telematica Roma

Course	SPORTS TRAUMATOLOGY
Level and Study Program	Master's Degree in Science and Techniques of Sport
Academic Discipline Sector (SSD) (SSD)	MED/33
Year of Study	1
Accademic Year	2024-2025
Total Credits	6
Prerequisites	Human anatomy and physiology, basics of biomechanics, and basics of traumatology
Docente	Name and Surname: Giacomo Rizzello AREA: MALATTIE DELL'APPARATO LOCOMOTORE - TRAUMATOLOGIA NICKNAME: GIACOMO RIZZELLO EMAIL: GIACOMO.RIZZELLO@UNICUSANO.IT
Course Overview	The SPORTS TRAUMATOLOGY course focuses on the principles of anatomy, physiology, and biomechanics of the musculoskeletal system in a sports context. Understanding these principles is essential for preventing injuries and enhancing the performance of both recreational and professional athletes.
Learning Objectives	The course aims to provide students with the following competencies: Understanding the mechanical properties of the tissues composing the locomotor system, alongside their anatomical and biological foundations, to facilitate the comprehension of major traumatic and microtraumatic injuries and their healing processes. Applying biomechanical principles to injury prevention and management in sports.
Prerequisites	Fundamental knowledge of human anatomy, human physiology, biomechanics, and introductory concepts of traumatology.
Expected Learning Outcomes	By the conclusion of the course, students will be able to: Identify movements and activities associated with an increased risk of injury during sports participation. Design and implement safe and effective physical activity programs tailored to individual needs.
Course Structure	The course is delivered through a combination of the following activities: Didactic Lectures: 3 hours per module. Interactive Sessions: 2 hours via forum-based discussions (virtual classroom). Synchronous teaching tools, including web-conference meetings and real-time chat platforms, are also utilized to enhance interaction with enrolled students. To ensure steady progress, students are advised to allocate at least six hours per week for independent study over a 12-week period.

Course Modules	<p>Module I Review of the histology, physiology, and mechanical properties of key musculoskeletal tissues: Bone Cartilage Ligaments Tendons Muscle</p> <p>Module II Biomechanics, traumatic injuries, and overuse syndromes affecting muscles, tendons, ligaments, and cartilage.</p> <p>Module III Biomechanics and traumatic/overuse pathologies of the spine.</p> <p>Module IV Biomechanics and pathologies of the upper limb: overuse injuries, trauma, and principles of rehabilitation.</p> <p>Module V Biomechanics and pathologies of the knee: overuse injuries, trauma, and principles of rehabilitation.</p> <p>Module VI Biomechanics and pathologies of the hip and ankle: overuse injuries, trauma, and principles of rehabilitation.</p>
Study Materials	<p>Video Lectures: Pre-recorded sessions by the lecturer, organized into five modules. Supplementary Materials: Handouts, slides, and additional resources provided by the lecturer.</p> <p>Recommended Texts for Further Reading: Kapandji, I. A. (2020). Functional Anatomy. Monduzzi Editore. Levangie, P. K., Norkin, C. (2019). Joint Structure and Function: A Comprehensive Analysis. 6th Edition, F.A. Davis Company.</p>
Examination Methods	<p>Students' knowledge and skills will be evaluated through a written or oral examination, typically conducted at the central campus in Rome.</p> <p>Written Examination: Includes 10 multiple-choice questions and 5 open-ended questions (theoretical and/or practical) covering the entire syllabus.</p> <p>Oral Examination: Involves a structured discussion with five theoretical and/or practical questions spanning the course content. Each question holds equal weight, contributing a maximum of 10 points. In both formats, the evaluation emphasizes analytical skills, conceptual integration, and precise communication.</p> <p>Active participation in virtual classrooms (forums) and successful completion of activities will also contribute to the final assessment.</p>

Criteria for Final Thesis Assignment	The assignment of the final thesis will be based on a preliminary discussion, where the student outlines their specific academic interests. No restrictions are placed on thesis requests, and no minimum grade point average is required to initiate the process.
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