



UCAM
SPANISH SPORTS
UNIVERSITY



BARÇA
INNOVATION HUB

MASTER'S DEGREE IN HIGH PERFORMANCE SPORT: STRENGTH AND CONDITIONING



MODALITY
On Campus



COMMENCEMENT
January



CREDITS
60 ECTS



DURATION
1 Academic year

Presentation

Success in the area of High Performance Sport is highly dependent on the ability to translate the foundations of scientific research in Sports Science to the elite athlete training programs in Individual and Team Sports. The objective of this Master's is to enhance the knowledge and experience of the student in the specific field of Strength and Conditioning.

The aim of the master's program is to develop knowledge specific to strength and fitness training. The curriculum is totally focused on the application of the latest research trends in this field. Highly respected scientific experts have been invited to form part of the faculty to impart classes to our students in the many disciplines of Strength and Conditioning.

Teaching staff

- **Nicola Maffiuletti, PhD.** Head at Human Performance Lab Schulthess Clinic. Zurich (SWI).
- **José Antonio López Calbet, MD.** Professor of Exercise Physiology at the University of Las Palmas de Gran Canaria.
- **Anthony Blazeovich, PhD.** Professor of Biomechanics at Edith Cowan University (Australia).
- **Iñigo Mujika, PhD.** Sport Science Coordinator of the Spanish Swimming Federation and Associate Professor at the University of the Basque Country.
- **Per Aagaard, PhD.** Professor at the University of Southern Denmark. Renowned physiologist and biomechanist in the area of neuromuscular and biomechanical adaptations induced by training and detraining.

Barça Innovation Hub

Barça Innovation Hub highlights the knowledge accumulated by FC Barcelona over the years in the areas of team sports, sports performance, health and well-being, sports facilities, fan engagement, sports analysis and technology, as well as all those related to sport and its social impact.

For the Master in High Performance in Sports: Strength and Physical Conditioning, the **Certificate in Strength Training: from Rehabilitation to Performance** is included, with which to deepen the knowledge of these two professional profiles within the sports sciences. Don't miss this opportunity to obtain knowledge from this referential organization in sports!



National Strength and Conditioning Association (NSCA)

NSCA is the worldwide authority on strength and conditioning, bringing together a diverse group of professionals from the sports sciences, athletics, allied health and fitness industries. In today's competitive marketplace, employers seek the most qualified individuals. Earning the NSCA-CPT or NSCA-CSCS credentials gives you the ability to open doors both professionally and financially. NSCA recognizes UCAM's applied and research curriculum for which UCAM is included as part of their Education Recognition Program for Graduate studies.



Career Opportunities

- Optimization, assessment and control training, physical fitness and performance in individual sports.
- Biomechanics applied to health, fitness and sports training.
- Training of physiological adaptations and performance evaluation.
- Performance analysis in team sports.
- Analysis of the game-play and teaching-learning assessment in team sports.
- Prescription of exercise programs.
- Physical activity and exercise, functional autonomy and quality of life for older adults, special populations and disabled individuals.
- Learning and motor control.
- Personal training.
- Physical preparation.
- Coordination and management programs in clubs and sports performance centers.

Curriculum

Module	Credits
I. Research Methodology	10 ECTS
II. Computer and Research Methods in Strength and Conditioning	3.5 ECTS
III. Scientific Principles of Strength and Conditioning	4.5 ECTS
IV. Exercise Physiology	4.5 ECTS
V. Biomechanics and Movement Analysis	4.5 ECTS
VI. Program Design as related to Strength and Conditioning	6 ECTS
VII. Sport Nutrition and Ergogenic Aids	4.5 ECTS
VIII. Strength Training and Conditioning in the Elderly	4.5 ECTS
IX. Practicum	6 ECTS
X. Master's Thesis	12 ECTS