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Effective approaches to Sports performance and Health enhancement

PROF. CRISTEL GALVANI – PROF PAOLO BRUSEGHINI

Area of study:	Sports Science
Area Code:	SS300
Credit	6 ECTS
Dates	19 - 30 January (2 weeks)

Description

The course will provide an overview of 2 perspectives in sport performance or health enhancement.

Sports training represents a complex process which involves planning, organization, leading and assessments. For a successful preparation, it is important to actively involve the athlete in his/her own training and development processes. The key to success in performance sports relies on the coach ability to enhance the athlete's abilities, by providing the feed-back in the training process, using correct indicators that relate to performance and injury prevention and using effective communication and motivational techniques.

The significant health benefits of physical activity (PA), which includes exercise, have long been recognized. The main difficulty is to follow key considerations when making a cardiovascular (CV) exercise prescription, so that it can be tailored individually for each subject. Such awareness of the need to improve exercise prescription does constitute a major challenge in the worldwide context. The correct cardiorespiratory fitness (CRF) assessment and CV exercise training process and its follow-ups are at the core of this course.

During the course students will deepen their understanding of theoretical concepts by performing many laboratories. Moreover, in order to get a more intensive experience about Italian sport and health systems, two field visits will be organized.

Course contents

The learning goals of the course are:

- a) a) to explore the main dimensions of performance and health enhancement with different professionals;
- b) b) to point out the main issues related to planning customized loads, with a specific focus on functional evaluation;
- c) c) to get familiar with the main aspects of load monitoring;
- d) to deepen knowledge about some peculiar Italian sectors.



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Method of teaching

The course aims to implement a student-centered approach to learning; teacher and students will play an equally active role during classroom activities. Teachers' role is to facilitate student learning and comprehension of subjects.

Lecture, in-class discussion, group work, training activities, companies' visits.

Course requirements

Students are expected to comply with the following requirements:

- Regularly attend classes and actively participate to the discussions and practical sessions
- Take a final written exam

Grading

Assessment of in class participation	20% of final grade
Assessment of group work	20% of final grade
Final written exam (multiple choice test)	60% of final grade

Course readings and materials

All the readings and the lecturer's slides will be available on Blackboard

Class schedule (subject to changes):

SPORTS TEAM PERFORMANCE ENHANCEMENT		CARDIOVASCULAR EXERCISE PRESCRIPTION
h 9.00-12.00		h 13.00-16.00
Lecture 1		The role of physical activity in the prevention of chronic CV diseases
Lecture 2	The role of the sports medicine physician in team sports	Optimize participant adherence by using effective communication, motivational techniques and behavioral strategies
Lecture 3	The role of the team physician in team sports	Company Visit
Lecture 4	The role of sports psychologist in team sports	\\



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Lecture 5	Establish key indicators that relate to performance*	Analyze client data to identify risk, formulate a plan of action and conduct CRF assessment*
Lecture 6	Establish assessment strategies to evaluate performance status*	Establish baseline values, set goals and develop individualized CV programs*
Lecture 7	Load measurement (internal load vs. external load) to facilitate performance planning, and ongoing monitoring*	Define correct exercise prescription selecting exercise modalities to achieve the desired adaptations*
Lecture 8	Injury prevention and rehabilitation in team sports*	Monitor the client's response to exercise, providing modifications as necessary*
Lecture 9	Final exam+Company Visit	\\

*Practical activities

Rules of conduct

Attendance: Attendance is mandatory and no absence/s will be excused. Please consider that Field Trips are considered equal to regular classes and indeed you are expected to attend the visits. Unexcused absences will not be accepted. An excused absence will only be granted if you are seriously ill and can support your claim with a local doctor's certificate dated the day you missed class (therefore you must go to the doctor that same day) that has to be delivered to the Professor or to UCSC International Office. Any other absence will not be excused and will result in not being admitted to the final exam, which corresponds to a 0 (zero) in the final exam.

Exam Date: The exam date cannot be re-scheduled. Should the dates of the final exams be moved for force major reasons, UCSC International Office and the Professor will promptly inform you in class and/or via email on the new date agreed. Unexcused absences to the exams will result in a failing grade in the course. In cases of unforeseeable circumstances such as illness or injury on the day of the exams, you must submit a medical certificate and communicate your absence to the Professor and UCSC International Office via email prior to the exam. If the student does not justify his/her absence through sufficient documentation and with adequate notice before the final test, you will receive an automatic Failed. Absences for other unforeseeable circumstances will not be accepted and will result in a failing grade.

Instructor Bio

Christel Galvani obtained her PhD in the Sciences et Techniques des Activités Physiques et Sportives (STAPS) in 2008. She is an Associate Professor in Sport Science. She is Co-coordinator of the Master degree course in Sport science for prevention and rehabilitation. She teaches different courses in Bachelor and Master degrees. She is head of the Exercise & Sport Science Laboratory. She is Member of the teachers' board of the international PhD in Exercise and sport sciences, of the governing board of the Master's Degree in Physical training specialist in soccer, of the Scientific Committee of the Center for Research in Sports Biochemistry and Nutrition (CRIBENS), and of the "Catholic for sport" working table. She is Fellow Member of the European College of Sport Science



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(ECSS). She has been involved in research activities for over 20 years in the field of physiological responses to exercise, physical activity, and exercise therapy.

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Paolo Bruseghini is a researcher in Sports Science at the Università Cattolica del Sacro Cuore, where he teaches Theory and Methodology of Training. He obtained his PhD in the Science of Physical Exercise and Human Movement from the University of Verona. He has been involved in research activities for over ten years in the field of exercise physiology and physical activity. He has collaborated with various sports organizations, both professional and non-professional, as a coach and expert in functional assessment. Additionally, he has worked with several private companies and national public institutions on projects promoting physical activity across different fields and settings.

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