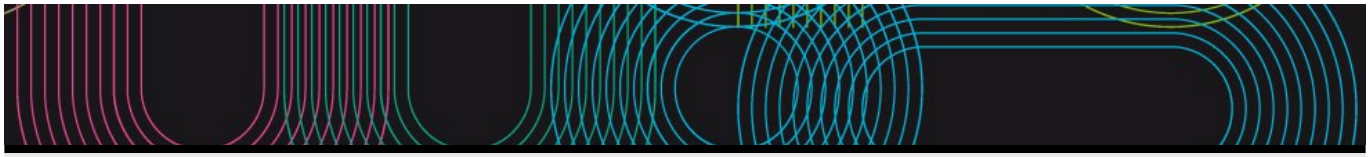

IDENTIFYING DATA				
Physiology of exercise and exertion				
Subject	Physiology of exercise and exertion			
Code	P05G170V01901			
Study programme	(*)Grao en Fisioterapia			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Optional	3rd	1st
Teaching language	Spanish Galician English			
Department				
Coordinator	García Soidan, José Luís			
Lecturers	García Soidan, José Luís Silva Alonso, Telmo			
E-mail	jlsoidan@uvigo.es			
Web	http://www.webs.uvigo.es/jlsoidan			
General description	Physiology adapted to the physical activity and when deposing you. The #feeding of the sportsman. Design of proofs of effort. Learning of the urgent measures of first helps, RCP and *Heimlich, applicable when deposing you.			

Competencies	
Code	
A1	(*)Que os estudantes demostren posuír e comprender coñecementos nunha área de estudo que parte da base da educación secundaria xeral e adoita atoparse a un nivel que, malia se apoiar en libros de texto avanzados, inclúe tamén algúns aspectos que implican coñecementos procedentes da vangarda do seu campo de estudo.
A2	(*)Que os estudantes saiban aplicar os seus coñecementos ó seu traballo ou vocación dunha forma profesional e posúan as competencias que adoitan demostrarse por medio da elaboración e defensa de argumentos e a resolución de problemas dentro da súa área de estudo.
A4	(*)Que os estudantes poidan transmitir información, ideas, problemas e solución a un público tanto especializado coma non especializado.
B1	(*)Coñecer e comprender a morfoloxía, a fisioloxía, a patoloxía e a conduta das persoas, tanto sas coma enfermas, no medio natural e social.
B19	(*)Comunicarse de modo efectivo e claro, tanto de forma oral coma escrita, cos usuarios do sistema sanitario así como con outros profesionais.
C1	
C4	(*)Coñecemento e comprensión da estrutura e función do corpo humano a nivel molecular, celular, de órganos e sistemas; dos mecanismos de regulación e control das diferentes funcións
C8	(*)Coñecer e comprender os principios e aplicacións dos procedementos de medida baseados na biomecánica e na electrofisioloxía
C20	(*)Adquisición de vocabulario propio no campo da Fisioterapia
C21	(*)Adquirir formación científica básica en investigación
C45	(*)Incorporar a investigación científica e a práctica baseada na evidencia como cultura profesional
C49	(*)Afrontar o estrés, o que supón ter capacidade para controlarse a si mesmo e controlar a contorna en situacións de tensión
C53	(*)Habilidade para o manexo de instrumentos de laboratorio e de aparellos básicos para o estudo experimental
C54	(*)Interpretar os resultados dun experimento básico en ciencias biolóxicas e físicas
D1	(*)Comunicación oral e escrita nas linguas cooficiais da Comunidade Autónoma.
D2	(*)Capacidade de análise e síntese.
D3	(*)Capacidade de organización e planificación.
D4	(*)Capacidade de xestión da información
D5	(*)Resolución de problemas
D6	(*) Toma de decisións
D7	(*) Coñecementos de informática relativos ao ámbito de estudo

D9	(*)Compromiso ético
D10	(*)Traballo en equipo
D11	(*) Habilidades nas relacións interpersoais
D12	(*)Razoamento crítico
D13	(*)Recoñecemento da diversidade e a multiculturalidade.
D15	(*)Aprendizaxe autónoma
D16	(*)Motivación por a calidade.
D17	(*)Adaptación a novas situacións
D18	(*)Creatividade
D19	(*)Iniciativa e espírito emprendedor
D20	(*)Liderado

Learning outcomes

Expected results from this subject	Training and Learning Results			
To know and comprise the anatomy and human physiology, highlighting the dynamic relations go in the structure and the function, especially of the motor and nervous systems, cardiac and respiratory system.	A1	B1 B19	C1 C4 C21 C53 C54	D1 D2 D3 D4 D5 D6 D10 D12
To Know and understand the structure and function of the human body to molecular level, cellular, of organs and systems, of the mechanisms of regulation and control of the different functions.	A1	B1	C4 C8 C21 C53	D1 D2 D3 D4 D5 D6 D9 D10 D11 D12 D13 D15 D16 D17
To Know and comprise the principles and applications of the procedures of measure based in the biomechanics and electro-physiology.	A2	B1	C8 C20	D1 D2 D3 D4 D5 D6 D7 D9 D10 D11 D12 D15 D17
To incorporate the scientific investigation and the practice based in the evidence how professional culture.	A4		C21 C45 C53	D2 D3 D4 D5 D6 D7 D9 D10 D11 D12 D13 D15 D16

To face the stress, what supposes to have capacity to control to yes same and control the field in situations of tension.	A4	C49	D1 D2 D3 D5 D9
Skills for handle the instruments of the laboratory and of basic devices stop the experimental study.	A1	C21 C53	D1 D2 D4 D5 D9 D10 D12 D17
To interpret the results of one experience basic in biological and physical sciences.	A1	C1 C21 C53 C54	D1 D2 D3 D4 D5 D6 D9 D10 D11 D12
To Work with responsibility.	A2		D2 D3 D5 D9 D10 D11 D16 D18
To Keep an attitude of learning and improvement.	A1		D4
To Develop the capacity to organize and direct.	A4		D3
Verbal communication and writing in the co-oficial languages of the Autonomous Community.			D1
Capacity of analysis and synthesis.			D2
YOU Capacity of organisation and planning.			D3
Capacity of management of the information.			D4
Resolution of problems.			D5
Takes of decisions.			D6
Knowledges of relative computing to the field of study.			D7
Ethical Commitment.			D9
Work in team.			D9
Skills in interpersonal relations			D10 D11
Critical Reasoning.			D12
Recognition of the diversity and multiculturality			D13
Autonomous Learning.			D15
Motivation by the quality.			D16
Adaptation to new situations.			D17
Creativity.			D18
Initiative and entrepreneurial spirit.		B19	D19
Leadership.			D20

Contents	
Topic	
Subject 1. Introduction to the physiology of the exercise and of the effort.	Concepts key of the physiology of the exercise. Energetic systems, anaerobic and aerobic thresolds
Subject 2. The sportive nutrition.	Energetic nutrients. Other nutrients. Hydration Diets.
Subject 3. Physiological organic adaptations to the physical effort.	Answers of the distinct organs and systems to the exercise.
Subject 4. Proofs of effort.	Adaptation of the organism to increasing efforts. Distinct types of proofs of efforts, stop each sport.

Subject 5. Measures of urgent intervention against injuries. First aids.	First aids. Basic life support Survival chain.

Planning			
	Class hours	Hours outside the classroom	Total hours
Tutored works	1	1	2
Master Session	20	56	76
Laboratory practises	12	14	26
Multiple choice tests	2	40	42
Reports / memories of practice	2	2	4
*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.			

Methodologies	
	Description
Tutored works	The student, of individual way or in group, elaborates a document envelope to thematic of the subject or prepares seminars, investigations, memories, essays, summaries of readings, conferences etc. Generally it treats of an autonomous activity of/of the student/s that includes the search and collected of information, reading and handle of bibliography, editorial...
Master Session	Exhibition by part of the professor of the contained envelope to subject object of study, theoretical bases and/or directors of one work, exercise or project to develop pole student.
Laboratory practises	Activities of application of the knowledges to concrete situations and of acquisition of basic skills and procediments related with the subject object of study. They develop in special spaces with specialized equipment (laboratories, classrooms computings etc).

Personalized attention	
Methodologies	**Description**
Tutored works	Academic activity attended by teaching staff, individual or in little groups, with the aim to attend the needs and queries of the students related with study and/or subjects linked with the subject, providing orientation, support and motivation in the process of learning. This activity can developed in the class (directly in the classroom and in the moments that the professor has assigned to tutorized of dispatch) or of form non presential (through email or on the virtual campus).

Assessment					
	Description	Qualification	Training and Learning Results		
Tutored works	Selection and development in groups of 4 students, of one fear assigned pole professor it each group of students.	10		B19	D1 D2 D3 D4 D5 D6 D7 D9 D10 D11 D12 D13 D15 D16 D17 D18 D19 D20
Multiple choice tests	Examination type test of 40 questions.	50	A1 A2 A4	B19	D1 D2 D3 D4 D5 D6 D12 D15

Reports / memories of practice	Collected daily in individualized or groupal form in the laboratory, in each practice realized in the laboratory.	40	A1 A2 A4	B19	D1 D2 D3 D4 D5 D6 D7 D9 D10 D11 D12 D13 D16 D17

Other comments on the Evaluation

In the second and following announcements it have in account the same criteria that in the first announcement, to approve the subject.

The practices approved will be conserved during two announcements. To approve the subject go in all the proofs owed to achieved 50% or more to approve it subject.The assistance to the practices is mandatory, under allows a 10% of fouls justified during it study.

Sources of information

López Chicharro J., **FISIOLOGÍA DEL ENTRENAMIENTO AERÓBICO**, 2013,

Calderón Montero F., **Fisiología Humana aplicada a la actividad física.**, 2012,

Powers S., **Exercise Physiology: Theory and Application to Fitness and Performance.**, 2012,

Kraemer W., **Exercise Physiology**, 2011,

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Mora Rodríguez Ricardo, **Fisiología del deporte y el ejercicio : prácticas de campo y laboratorio .**, 2010,

D. Bernadot, **Nutrición deportiva avanzada.**, 1ª. 2007,

N. Clark, **La guía de nutrición deportiva.**, 1ª. 2006.,

J. Wilmore y D. Costill, **Fisiología del esfuerzo y del deporte.**, 5ª. 2004.,

Mac. Ardle y F. Katz, **Fundamentos de Fisiología del ejercicio.**, 2ª. 2004.,

Guillén del Castillo, M. y Linares Girela D, **Bases biológicas y fisiológicas del movimiento.**, 1ª. 2002.,

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3.- Lopez Chicharro J, Hernández Vaquero M. Fisiología del Ejercicio. Ed. Panamericana, 3ª edición, Madrid 2006.

4.- Wilmore JH, Costill DL. Fisiología del Esfuerzo y del Deporte. Ed. Paidotribo, 5ª Edición, Barcelona, 2004.

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1.- Mora Rodríguez, Ricardo. Fisiología del deporte y el ejercicio: prácticas de campo y laboratorio. Ed. Médica Panamericana,Madrid, 2009.

2.-López-Chicharro J. Transición Aeróbica-Anaeróbica. Ed. Master Line & Prodigio SL, Madrid, 2004.

3.-López Chicharro J, López-Mojares LM. Fisiología Clínica del Ejercicio. Ed.Paramericana. Madrid, 2008.

4.- Bernadot D. Nutición deportiva avanzada. Ed. Tutor: Madrid. 2007.

5.- Clark N. La guía de la nutrición deportiva. Ed. Paidotribo: Badalona. 2006.

6.- Burke L. Nutrición en el Deporte. Ed. Panamericana: Madrid. 2010.

7.-Cabañas MD, Esparza F. (Coords.) Compendio de Cineantropometría. CTO D.L.: Madrid. 2009.

Recommendations

Subjects that it is recommended to have taken before

Human Anatomy: Human Anatomy/P05G170V01101
Physiology: Human physiology/P05G170V01103