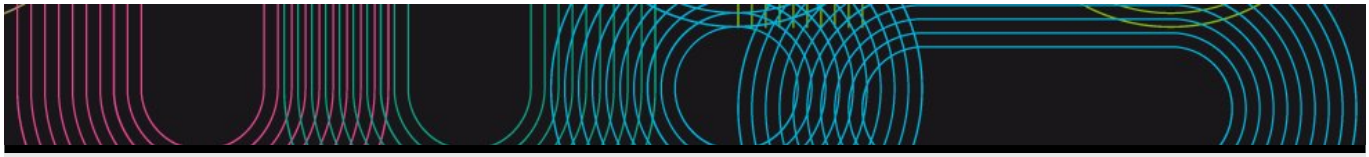

IDENTIFYING DATA				
Human anatomy for movement				
Subject	Human anatomy for movement			
Code	P02G051V01104			
Study programme	Grado en Ciencias de la Actividad Física y del Deporte			
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Basic education	1st	1st
Teaching language	#EnglishFriendly Spanish			
Department				
Coordinator	Diz Gómez, José Carlos			
Lecturers				
E-mail				
Web				
General description				

Training and Learning Results	
Code	
B2	2.1 To know how to guide, design, apply and technically-scientifically evaluate physical exercise and physical condition at an advanced level, based on scientific evidence, in different environments, contexts and types of activities for the entire population and with emphasis on special populations such as: the elderly, schoolchildren, people with disabilities and people with pathologies, health problems or similar (diagnosed and/or prescribed by a physician), taking into account gender and diversity.
B3	2.2 Identify, communicate and apply scientific anatomical-physiological and biomechanical criteria at an advanced level of skills in the design, development and technical-scientific evaluation of procedures, strategies, actions, activities and appropriate orientations; to prevent, minimize and/or avoid a health risk in the practice of physical activity and sport in all types of population.
B4	3.2 Know how to promote, advise, design, apply and evaluate technically and scientifically appropriate and varied physical activity, physical exercise and sport programs, adapted to the needs, demands and individual and group characteristics of the entire population, with emphasis on the elderly, women and diversity, schoolchildren, people with disabilities and people with pathologies, health problems or similar (diagnosed and/or prescribed by a physician).
B9	6.1 To know and understand the bases of the methodology of scientific work.
B10	6.2 Analyze, review and select the effect and effectiveness of the practice of methods, techniques and resources of research and scientific work methodology, in solving problems that require the use of creative and innovative ideas.
B11	7.1 To know and know how to apply ethical and deontological principles and social justice in the performance and professional involvement, as well as to have habits of scientific and professional rigor and a constant attitude of service to citizens in the exercise of their professional practice with the aim of improvement, excellence, quality and efficiency.
B12	7.2 To know, elaborate and know how to apply the ethical-deontological, structural-organizational, professional performance and regulations of the professional practice of Graduates in Physical Activity and Sport Sciences, in any professional sector of physical activity and sport (formal and informal physical-sports teaching; physical and sports training; physical exercise for health; physical activity and sport management); as well as to be able to develop a multidisciplinary work.
C5	2.1 To know how to guide, design, apply and technically-scientifically evaluate physical exercise and physical condition at an advanced level, based on scientific evidence, in different environments, contexts and types of activities for the entire population and with emphasis on special populations such as: the elderly, schoolchildren, people with disabilities and people with pathologies, health problems or similar (diagnosed and/or prescribed by a physician), taking into account gender and diversity.
C6	2.2 Identify, communicate and apply scientific anatomical-physiological and biomechanical criteria at an advanced level of skills in the design, development and technical-scientific evaluation of procedures, strategies, actions, activities and appropriate orientations; to prevent, minimize and/or avoid a health risk in the practice of physical activity and sport in all types of population.

C7	2.3 Design and apply with fluency, naturalness, consciously and continuously adequate, efficient, systematic, varied physical exercise and physical condition, based on scientific evidence, for the development of the processes of adaptation and improvement or readaptation of certain capacities of each person in relation to human movement and its optimization; in order to be able to solve unstructured problems, of increasing complexity and unpredictable and with emphasis on special populations.
C9	2.5 Know how to readapt, retrain and/or re-educate individuals, groups or teams with injuries and pathologies (diagnosed and/or prescribed by a physician), whether they compete or not, through physical-sports activities and physical exercises appropriate to their characteristics and needs.
C11	3.1 Analyze, identify, diagnose, promote, guide and evaluate strategies, actions and activities that promote adherence to an active lifestyle and the participation and regular and healthy practice of physical activity and sport and physical exercise in an adequate, efficient and safe way by citizens in order to improve their overall health, well-being and quality of life, and with emphasis on special populations such as: elderly people (senior citizens), schoolchildren, people with disabilities and people with pathologies, health problems or assimilated (diagnosed and/or prescribed by a doctor) attending to gender and diversity.
C12	3.2 Know how to promote, advise, design, apply and evaluate technically and scientifically appropriate and varied physical activity, physical exercise and sport programs, adapted to the needs, demands and individual and group characteristics of the entire population, with emphasis on the elderly, women and diversity, schoolchildren, people with disabilities and people with pathologies, health problems or similar (diagnosed and/or prescribed by a physician).
C13	3.3 Articulate and deploy programs of promotion, guidance, coordination, supervision and technical-scientific evaluation of physical activity, physical exercise and sport for the entire population, with emphasis on populations of special character, with the presence of a professional or carried out autonomously by the citizen, in different types of spaces and in any sector of professional intervention of physical activity and sport (formal and informal physical-sports education; physical and sports training; physical exercise for health; management of physical activity and sport) according to the possibilities and needs of citizens, with the aim of achieving their autonomy, understanding, and greater and adequate practice of physical activity and sport.
C14	3.4 To promote education, dissemination, information and constant guidance to individuals and leaders on the benefits, significance, characteristics and positive effects of the regular practice of physical activity and sport and physical exercise, of the risks and damages of an inadequate practice and of the elements and criteria that identify its adequate execution, as well as information, guidance and advice on the possibilities of appropriate physical activity and sport in their environment in any sector of professional intervention.
C22	6.2 Analyze, review and select the effect and effectiveness of the practice of methods, techniques and resources of research and scientific work methodology, in solving problems that require the use of creative and innovative ideas.
C23	6.3 Articulate and deploy with rigor and scientific attitude the justifications on which all acts, decisions, processes, procedures, actions, activities, tasks, conclusions, reports and professional performance are elaborated, supported, substantiated and justified in a constant and professional way.
C24	6.4 Articulate and deploy procedures, processes, protocols, own analysis, with rigor and scientific attitude on issues of social, legal, economic, scientific or ethical nature, when necessary and relevant in any professional sector of physical activity and sport (formal and informal physical-sports education; physical and sports training; physical exercise for health; physical activity and sport management).
C25	7.1 To know and know how to apply ethical and deontological principles and social justice in the performance and professional involvement, as well as to have habits of scientific and professional rigor and a constant attitude of service to citizens in the exercise of their professional practice with the aim of improvement, excellence, quality and efficiency.
C26	7.2 To know, elaborate and know how to apply the ethical-deontological, structural-organizational, professional performance and regulations of the professional practice of Graduates in Physical Activity and Sport Sciences, in any professional sector of physical activity and sport (formal and informal physical-sports teaching; physical and sports training; physical exercise for health; physical activity and sport management); as well as to be able to develop a multidisciplinary work.
D5	2.1 To know how to guide, design, apply and technically-scientifically evaluate physical exercise and physical condition at an advanced level, based on scientific evidence, in different environments, contexts and types of activities for the entire population and with emphasis on special populations such as: the elderly, schoolchildren, people with disabilities and people with pathologies, health problems or similar (diagnosed and/or prescribed by a physician), taking into account gender and diversity.
D6	2.2 Identify, communicate and apply scientific anatomical-physiological and biomechanical criteria at an advanced level of skills in the design, development and technical-scientific evaluation of procedures, strategies, actions, activities and appropriate orientations; to prevent, minimize and/or avoid a health risk in the practice of physical activity and sport in all types of population.
D7	2.3 Design and apply with fluency, naturalness, consciously and continuously adequate, efficient, systematic, varied physical exercise and physical condition, based on scientific evidence, for the development of the processes of adaptation and improvement or readaptation of certain capacities of each person in relation to human movement and its optimization; in order to be able to solve unstructured problems, of increasing complexity and unpredictable and with emphasis on special populations.
D8	2.4 Articulate and display an advanced level of skill in the analysis, design and evaluation of tests for the assessment and control of physical fitness and physical-sports performance.

D11	3.1 Analyze, identify, diagnose, promote, guide and evaluate strategies, actions and activities that promote adherence to an active lifestyle and the participation and regular and healthy practice of physical activity and sport and physical exercise in an adequate, efficient and safe way by citizens in order to improve their overall health, well-being and quality of life, and with emphasis on special populations such as: elderly people (senior citizens), schoolchildren, people with disabilities and people with pathologies, health problems or assimilated (diagnosed and/or prescribed by a doctor) attending to gender and diversity.
D12	3.2 Know how to promote, advise, design, apply and evaluate technically and scientifically appropriate and varied physical activity, physical exercise and sport programs, adapted to the needs, demands and individual and group characteristics of the entire population, with emphasis on the elderly, women and diversity, schoolchildren, people with disabilities and people with pathologies, health problems or similar (diagnosed and/or prescribed by a physician).
D13	3.3 Articulate and deploy programs of promotion, guidance, coordination, supervision and technical-scientific evaluation of physical activity, physical exercise and sport for the entire population, with emphasis on populations of special character, with the presence of a professional or carried out autonomously by the citizen, in different types of spaces and in any sector of professional intervention of physical activity and sport (formal and informal physical-sports education; physical and sports training; physical exercise for health; management of physical activity and sport) according to the possibilities and needs of citizens, with the aim of achieving their autonomy, understanding, and greater and adequate practice of physical activity and sport.
D14	3.4 To promote education, dissemination, information and constant guidance to individuals and leaders on the benefits, significance, characteristics and positive effects of the regular practice of physical activity and sport and physical exercise, of the risks and damages of an inadequate practice and of the elements and criteria that identify its adequate execution, as well as information, guidance and advice on the possibilities of appropriate physical activity and sport in their environment in any sector of professional intervention.
D24	6.1 To know and understand the bases of the methodology of scientific work.
D25	6.2 Analyze, review and select the effect and effectiveness of the practice of methods, techniques and resources of research and scientific work methodology, in solving problems that require the use of creative and innovative ideas.
D26	6.3 Articulate and deploy with rigor and scientific attitude the justifications on which all acts, decisions, processes, procedures, actions, activities, tasks, conclusions, reports and professional performance are elaborated, supported, substantiated and justified in a constant and professional way.
D27	6.4 Articulate and deploy procedures, processes, protocols, own analysis, with rigor and scientific attitude on issues of social, legal, economic, scientific or ethical nature, when necessary and relevant in any professional sector of physical activity and sport (formal and informal physical-sports education; physical and sports training; physical exercise for health; physical activity and sport management).
D28	7.1 To know and know how to apply ethical and deontological principles and social justice in the performance and professional involvement, as well as to have habits of scientific and professional rigor and a constant attitude of service to citizens in the exercise of their professional practice with the aim of improvement, excellence, quality and efficiency.
D29	7.2 To know, elaborate and know how to apply the ethical-deontological, structural-organizational, professional performance and regulations of the professional practice of Graduates in Physical Activity and Sport Sciences, in any professional sector of physical activity and sport (formal and informal physical-sports teaching; physical and sports training; physical exercise for health; physical activity and sport management); as well as to be able to develop a multidisciplinary work.

Expected results from this subject

Expected results from this subject		Training and Learning Results		
Performance inside the necessary ethical principles for the correct professional exercise.		B2 B11 B12	C25 C26	D28 D29
Adaptation to new situations, resolution of problems and autonomous learning.	A2	B3 B7 B9	C6 C14	D24 D25 D26
Knowledge and understanding of the scientific literature of the field of the anatomy.		B3 B4 B4 B9	C6 C8 C14 C22 C23	D5 D5 D6 D6 D7
Knowledge and compression of the physiological and biomechanical factors that condition the practice of the physical activity and the sport.		B2 B3 B9 B10	C5 C7 C9 C11 C12 C13 C22 C24	D5 D6 D7 D8 D11 D12 D13 D14 D24 D25 D27

Knowledge and understanding of the necessary ethical principles for the correct professional exercise.	A1	B11 B12	C25 C26	D28 D29
Habits of excellence and quality in the professional exercise.	A1	B2 B4 B9 B10 B11 B12	C11 C12 C14 C22 C25 C26	D12 D13 D14 D24 D25 D26
Management of the basic scientific information applied to the physical activity and to the sport in his different demonstrations.	A1	B9	C5 C22 C23	D24 D25 D26
Knowledge and understanding of the foundations, structures and functions of the skills and patterns of movement human.		B2 B3	C5 C6 C31 C32	D5 D6 D11

Contents

Topic	
1. Anatomical terminology 2. General structure of the human body 3. Anatomy of the locomotor system. 4. Neuroanatomíy and splachnology.	Generalities: cytology, histology and human embryology. Locomotor System: head, neck, trunk and extremities. Heart and great vessels. Digestive. Respiratory. Genito-urinary. Cranial Peripheral nervous system. Nervous system of the autonomous life. Central nervous system.
Practice.	Practices of cytology and histology. Practices of dissection and study of the distinct fabrics. Identification of structures in anatomical models.

Planning

	Class hours	Hours outside the classroom	Total hours
Lecturing	22.5	38	60.5
Laboratory practical	30	30	60
Objective questions exam	1	14	15
Objective questions exam	1	13.5	14.5

*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies

	Description
Lecturing	Exhibition of the contents of the program. The students will have available in FAITIC the slides of the presentations used in clases and complementary material in digital version or paper.
Laboratory practical	Application to practical level of the theory of a field of knowledge in a determinate context. Practical exercises in the Laboratory of Morphological Sciences

Personalized assistance

Methodologies	Description
Laboratory practical	Doubt solving and explanations to reduced groups of specific subjects. Tutorized management of sources of information.

Assessment

	Description	Qualification	Training and Learning Results		
Laboratory practical	Practices: Assistance and quality of the activities made in the practices will be evaluated. We will evaluate the tasks performed, individually or in group. The final marks (NF) will be calculated through the marks of practices and continuous evaluation (NEC) and the marks of the examinations of objective questions (NEF), by means of the following formula (taken from Bardina and Liz): NF=NECx0.3+(10-NECx0.3)x(NEF/10)	30	B11 B12	C5 C6 C7 C9 C11 C12 C13 C14 C22 C23 C24 C25 C26	D28 D29

Objective questions exam	Theoretical examination: Questions with five options, only one correct answer, without penalization for wrong answers. To pass it will be necessary to answer correctly 70% of the questions.	35	B2 B3 B4 B9 B10 B11 B12	C25 C26	D5 D6 D7 D8 D11 D12 D13 D14 D24 D25 D26 D27
Objective questions exam	Theoretical examination: Questions with five options, only one correct answer, without penalization for wrong answers. To pass it will be necessary to answer correctly 70% of the questions.	35	B2 B3 B4 B10 B11 B12	C25 C26	D5 D6 D7 D8 D11 D12 D13 D14 D24 D25 D26 D27

Other comments on the Evaluation

The **continuous evaluation** will include the laboratory practices and the objective questions exams. The final marks (NF) will be calculated through the marks of practices and continuous evaluation (NEC) and the marks of the examinations of objective questions (NEF), by means of the following formula (taken from Bardina and Liz): NF=NECx0.3+(10-NECx0.3)x(NEF/10)

The **global evaluation** will include only the objective questions exam. It uses the same formula of the previous paragraph, and if the alumn had not realized any practices, continuous evaluation mark (NEC) will be 0, hence NF=NEF.

If the student failed to pass the subject on first attempt, non-adquired competences will be evaluated in the July convocatory.

We will keep the same criteria in successive convocatories.

The official dates of examinations can be consulted in the web page of the School: http://fcced.uvigo.es/

Sources of information

Basic Bibliography

DRAKE RL. VOGL A., **Gray: Anatomía para estudiantes**, 3ª ed, Elsevier, 2015

GILROY AM., **Prometheus. Atlas de Anatomía**, 2ª ed, Panamericana, 2013

LIPPERT H, **Anatomía. Texto y atlas**, 4ª ed, Marban SL, 1999

MOORE KL, **Anatomía con orientación Clínica.**, 7ª ed, Lippincott Williams and Wilkins., 2013

NETTER FH, **Atlas de Anatomía Humana**, 6ª ed,, Masson S.A, 2015

OLSON TR, **A.D.A.M. Atlas de Anatomía Humana**, Masson-Williams & Wilkins, 1997

PAULSEN F. WASCHKE J., **Sobotta atlas de Anatomía Humana**, 23ª ed, Elsevier, 2012

WILLIAMS PL, **Gray Anatomía**, Elsevier, 1998

SCHÜNKE M, **Texto y Atlas de Anatomía**, 3ªed, Panamericana, 2015

Complementary Bibliography

FAWCETT DW, **Tratado de Histología**, 11ª ed, Interamericana McGraw Hill, 1989

WELSCH U, **Sobotta. Histologia**, Panamericana, 2014

Recommendations