

1. BASIC DATA

Subject	Injury prevention and rehabilitation
Qualification	Degree in Physical Activity and Sports Science
School/Faculty	Physical Activity and Sport Sciences and Physiotherapy
Course	3º
ECTS	6
Character	Required
Language(s)	Spanish and English
Modality	On-site
Semester	S5
Academic year	2026-2027
Coordinating teacher	Carlos Enrique López Nuevo

2. PRESENTATION

The practice of sporting activity has experienced a considerable increase in recent years in all population groups. Along with increased participation, the demand and specialization of these practices has increased the incidence of injuries considerably, with the consequent risk to health and decrease in sports performance.

In this context, it is necessary to put in place evidence-based prevention strategies and recovery plans in a multidisciplinary manner to minimize risk and protect the individual from future injuries.

A thorough understanding of the pathophysiology of the injury and the application of the precise exercise techniques and strategies for each will provide optimal results for the athlete.

The subject "Injury prevention and rehabilitation" is taught in the third year of the degree in Physical Activity and Sports Sciences in the first semester. It has a value of 6 ECTS and is a compulsory subject within the degree that is taught in Spanish and English. Taking into account the formative profile that the student is expected to achieve, it provides the student with a basic and specific training on the considerations to be taken into account when prescribing exercise in the context of the injured athlete, or the one who intends to improve his profile and therefore protect himself from injury. The course follows an order in the planning of the contents that allows the student to acquire the knowledge progressively.

The ECTS of this course includes master classes, case analysis, problem-based learning, directed work, tutorials and hours of autonomous work and cooperative learning.

All this will allow the future graduate to acquire the knowledge and skills necessary to carry out a correct evaluation of the athlete, as well as the elaboration of exercise programs adapted to each subject within the sports field.

3. LEARNING OUTCOMES

Knowledge

CON4. Identifies strategies and actions to promote healthy habits through physical activity and sport and/or ancillary interventions that help to maintain and improve physical condition.

- Discriminate key concepts of sport and health oriented exercise practice
- Identifies risk factors through functional assessment of the subject
- Demonstrates knowledge in relation to the exercises to be applied in each context.

Skills

HAB2. Designs health- and performance-oriented physical exercise tasks, progressions, and strategies based on individual variables and environmental conditions.

- Applies the concepts of Promotion of PE practice

Competencies

- COMP8. Articulate and deploy 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.
- COMP11. Analyze, identify, diagnose, promote, guide and evaluate strategies, actions and activities that encourage the 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), school children, people with disabilities and people with pathologies, health problems or assimilated (diagnosed and/or prescribed by a doctor) attending to gender and diversity.
- COMP12. Promote, advise, design, apply and technically-scientifically evaluate 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, female gender and diversity, school children, people with disabilities and people with pathologies, health problems or similar (diagnosed and/or prescribed by a physician).
- COMP14. 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.
- COMP15. Organize the promotion of policies, strategies and educational programs on aspects of public health, in relation to physical activity and sport (for the prevention of risk factors and

diseases); as well as cooperate with other agents involved in the same: in any sector of professional intervention of physical activity and sport.

- COMP40. Teamwork: Cooperate with others in the pursuit of a shared academic or professional goal, participating actively, empathetically and exercising active listening and respect for all members.
- COMP41. Critical analysis. Integrate analysis with critical thinking in a process of evaluating different professional ideas or possibilities and their potential for error, based on objective evidence and data that lead to effective and valid decision making.
- COMP42. Resilience. Adapting to adverse, unexpected situations that cause stress, whether personal or professional, overcoming them and even turning them into opportunities for positive change.

4. CONTENTS

Topic 1. Basic aspects to be taken into account in the management of sports injuries.

Topic 2. Histology, pathophysiology and biomechanics of tissues. Approach of the main alterations.

Topic 3. Spine and core injuries.

Topic 4. Shoulder girdle, shoulder and arm-wrist-hand complex injuries.

Topic 5. Hip injuries.

Topic 6. Knee and ankle-foot complex injuries.

5. TEACHING-LEARNING METHODOLOGIES

The following are the types of teaching-learning methodologies to be applied:

- Master Class
- Case method
- Project-based learning

6. TRAINING ACTIVITIES

The types of training activities to be carried out and the student's dedication in hours to each of them are identified below:

Presential modality:

Training activity	Number of hours
Master Class	12
Practical application classes	18
Self-employment	56
Debates and colloquiums	8
Tutorials	12
Knowledge tests	2
Case analysis	22
Design of intervention strategies and plans	20
TOTAL	150

7. EVALUATION

The following is a list of the evaluation systems, as well as their weight in the total grade of the course:

Presential modality:

Evaluation system	Weight
On-site evaluation tests	40-50%
Case/problem	10-20%
Work on the design of strategies and intervention plans	30-40%

In the Virtual Campus, when you access the course, you will be able to consult in detail the evaluation activities to be performed, as well as the due dates and evaluation procedures for each of them.

7.1. Ordinary call for applications

In order to pass the course in the ordinary call, it is necessary to obtain a final grade equal or higher than 5.0, which will be the sum of the grades obtained in the different evaluable activities. In all the objective tests a score of 5.0 must be obtained, while the rest of the formative activities can be averaged together with a grade of 4.0.

7.2. Extraordinary call for applications

In order to pass the course in the extraordinary call it is necessary to obtain a final grade equal or higher than 5.0 that will result from the sum of the grades obtained in the different evaluable activities. In all the objective tests a score of 5.0 must be obtained, while the rest of the formative activities can be averaged together with a grade of 4.0. The activities not passed in the ordinary exam must be handed in, after having received the corresponding corrections from the professor, or those that were not handed in.

8. CHRONOGRAM

In this section you will find the chronogram with dates for the delivery of evaluable activities of the course:

Evaluable activities	Date
Activity 1. Case Studies (MA: Professional Environments)	Week 2
Activity 2. Core Assessment and Exercise (MA: Data Driven)	Week 5 and 6
Activity 3. Evaluation and exercise of the shoulder girdle	Weeks 8 and 9
Activity 4. Appraisal and MI Exercise	Week 12
Activity 5. Planning (MA: transdisciplinary)	Week 10
Activity 6. Final work	Week 16

This schedule may be subject to modifications due to logistical reasons. Any modification will be notified to the student in due time and form.

9. BIBLIOGRAPHY .

The recommended bibliography is listed below:

- Akita K, Sakamoto H, Sato T (1993). Innervation of the anteromedial muscle bundles of the gluteus medius. J Anat, 182:433-438.
- Alentorn-Geli E, Myer GD, Silvers HJ, Samitier G, Romero D, Lázaro-Haro C, Cugat (2009). Prevention of non-contact anterior cruciate ligament injuries in soccer players. Part 2: a review of prevention programs aimed to modify risk factors and to reduce injury rates. Knee Surg Sports Traumatol Arthrosc 17:859-879.
- Allen R, Reber A (1980). Very long-term memory for tacit knowledge. Cognition 8:175-185

- Andersen NH, Sojbjerg JO, Johannsen HV, Sneppen O (1999). Self-training versus physiotherapist-supervised rehabilitation of the shoulder in patients treated with arthroscopic subacromial decompression: a clinical randomized study. *J Shoulder Elbow Surg*; 8:99-101.
- Ayotte N, Stetts D, Keenan G, Greenway E (2007). Electromyographical analysis of selected lower extremity muscles during 5 unilateral weight-bearing exercises. *J Orthop Sports Phys Ther*, 37:48-55.
- Balady G, Chaitman B, Driscoll D, Foster C, Froelicher E, Gordon N, Pate R, Rippe J, Bazzarre T (1998). Recommendations for cardiovascular screening, staffing and emergency policies at health/fitness facilities. *Circulation*, 97:2283-2293.
- Bauer AM, Webright WG, Arnold BL, Schmitz RJ, Gansneder BM (1999). Comparison of weight bearing and non-weight bearing gluteus medius EMG during an isometric hip abduction. *JAT*, 34:S58
- Beek PJ (2000). Toward a theory of implicit learning in the perceptual- motor domain. *Int J Sport Psychol* 31:547-554.
- Beilock SL, Carr TH (2001). On the fragility of skilled performance: what governs choking under pressure?. *J Exp Psychol Gen* 130:701-725.
- Bolgla LA, Uhl TA (2005). Electromyographic analysis of hip rehabilitation exercises in a group of healthy subjects. *J Orthop Sports Phys Ther*, 35:487-494.
- Boudreau S, Dwyer M, Mattacola C, Lattermann C, Uhl T, McKeon J (2009). Hip- Muscle Activation During the Lunge, Single-Leg Squat, and Step-Up and- Over Exercises. *J Sport Rehab*, 18:91-103.
- Brass M, Heyes C (2005). Imitation: is cognitive neuroscience solving the correspondence problem?. *Trends Cogn Sci* 9:489-495.
- Brox JI, Gjengedal E, Uppheim G, Bohmer AS, Brevik JI, Ljunggren AE, et al (1999). Arthroscopic surgery versus supervised exercises in patients with rotator cuff disease (stage II impingement syndrome): a prospective, randomized, controlled study in 125 patients with a 2 1/2-year follow-up. *J Shoulder Elbow Surg*; 8:102-11.
- Brox JI, Staff PH, Ljunggren AE, Brevik JI (1993). Arthroscopic surgery compared with supervised exercises in patients with rotator cuff disease (stage II impingement syndrome). *BMJ*; 307:899-903.
- Buccino G, Binkofski F, Riggio L (2004). The mirror neuron system and action recognition. *Brain Lang* 89:370-376
- Bullock MP, Foster NE, Wright CC (2005). Shoulder impingement: the effect of sitting posture on shoulder pain and range of motion. *Man Ther*; 10:28-37
- Calvo-Merino B, Glaser D, Gre`zes J, Passingham R, Haggard P (2005). Action observation and acquired motor skills: an fMRI study with expert dancers. *Cereb Cortex* 15:1243-1249.
- Calvo-Merino B, Grezes J, Glaser D, Passingham R, Haggard P (2006). Seeing or doing? Influence of visual and motor familiarity in action observation. *Curr Biol* 16:1905-1910

- Caraffa A, Cerulli G, Proietti M, Aisa G, Rizzo A (1996). Prevention of anterior cruciate ligament injuries in soccer. A prospective controlled study of proprioceptive training. *Knee Surg Sports Traumatol Arthrosc* 4:19-21.
- Carlsson AM (1983). Assessment of chronic pain. Aspects of the reliability and validity of the visual analogue scale. *Pain*; 16:87-101
- Carolyn Kisner, Lynn A. Colby, THERAPEUTIC EXERCISE. Fundamentals and techniques Ed, Paidotribo, 2005.
- Cattaneo L, Rizzolatti G (2009). The mirror neuron system. *Arch Neurol* 66:557-560.
- Chimera NJ, Swanik KA, Swanik CB, Straub SJ (2004). Effects of plyometric training on muscle-activation strategies and performance in female athletes. *J Athl Train* 39:24-31
- Coghlan JA, Buchbinder R, Green S, Johnston RV, Bell SN (2008). Surgery for rotator cuff disease. *Cochrane Database Syst Rev*; 1:CD005619
- Conneely M, O Sullivan K, Edmondston S (2006). Dissection of gluteus maximus and medius with respect to their suggested roles in pelvic and hip stability: implications for rehabilitation? *Phys Ther Sport*, 7:176-178
- Conneely M, O'Sullivan K (2008). Gluteus maximus and gluteus medius in pelvic and hip stability: isolation or synergistic activation? . *Physio Ireland*, 29:6-10
- Constant CR, Murley AH (1987). A clinical method of functional assessment of the shoulder. *Clin Orthop Relat Res*; 214:160-4.
- Cools AM, Dewitte V, Lanszweert F, Notebaert D, Roets A, Soetens B, et al (2007). Rehabilitation of scapular muscle balance: which exercises to prescribe?. *Am J Sports Med*; 35:1744-51.
- Cools AM, Witvrouw EE, Mahieu NN, Danneels LA (2005). Isokinetic scapular muscle performance in overhead athletes with and without impingement symptoms. *J Athl Train*; 40:104-10
- Cross E, Hamilton A, Grafton S (2006). Building a motor simulation de novo: observation of dance by dancers. *Neuroimage* 31:1257-1267
- Cross K, Worrell T (1999). Effects of a Static Stretching Program on the Incidence of Lower Extremity Musculotendinous Strains. *JAT*, 34:11-14
- Dorrestijn O, Stevens M, Winters JC, van der Meer K, Diercks RL (2009). Conservative or surgical treatment for subacromial impingement syndrome? A systematic review. *J Shoulder Elbow Surg*; 18:652-60.
- Earl JE (2005). Gluteus medius activity during three variations of isometric single-leg stance. *J Sport Rehab*, 14:1-11
- Ekstrom R, Donatelli R, Carp K (2007). Electromyographic analysis of core trunk, hip and thigh muscles during 9 rehabilitation exercises. *J Orthop Sports Phys Ther*, 37:754-762.

- Ellenbecker TS, Cools A (2010). Rehabilitation of shoulder impingement syndrome and rotator cuff injuries: an evidence-based review. *Br J Sports Med*; 44:319-27.
- Ellman H (1987). Arthroscopic subacromial decompression: analysis of one- to three-year results. *Arthroscopy*; 3:173-81.
- Fredericson M, Cookingham CL, Chaudhari AM, Dowdell BC, Oestreicher N, Sahrmann SA (2000). Hip abductor weakness in distance runners with iliotibial band syndrome. *Clin J Sports Med*, 10:169-175.
- Froholdt A, Olsen O, Bahr R (2009). Low risk of injuries among children playing organized soccer: a prospective cohort study. *Am J Sports Med* 37:1155-1160.
- Frost P, Bonde JP, Mikkelsen S, Andersen JH, Fallentin N, Kaergaard A, et al (2002). Risk of shoulder tendinitis in relation to shoulder loads in monotonous repetitive work. *Am J Ind Med*; 41:11-8
- Gebauer GF, Nicholas JM (2007). Psychometric intelligence dissociates implicit and explicit learning. *J Exp Psychol Learn Mem Cogn* 33:34-54.
- Gottschalk F, Kourosh S, Leveau B (1989). The functional anatomy of tensor fasciae latae and gluteus medius and minimus. *J Anat*, 166:179-189
- Gray R (2004). Attending to the execution of a complex sensorimotor skill: expertise differences, choking, and slumps. *J Exp Psychol Appl* 10:42-54.
- Green S, Buchbinder R, Hetrick S (2003). Physiotherapy interventions for shoulder pain. *Cochrane Database Syst Rev*; 2:CD004258.
- Haahr JP, Ostergaard S, Dalsgaard J, Norup K, Frost P, Lausen S, et al (2005). Exercises versus arthroscopic decompression in patients with subacromial impingement: a randomised, controlled study in 90 cases with a one year follow up. *Ann Rheum Dis*; 64:760-4.
- HALL, C. and BRODY, L. Therapeutic exercise. Moving toward function. Lippincott .
- Hardy L, Mullen R, Jones G (1996). Knowledge and conscious control of motor actions under stress. *Br J Psychol* 87:621-636.
- Hardy L, Mullen R, Martin N (2001). Effect of task-relevant cues and state anxiety on motor performance. *Percept Mot Skills* 92:943-946.
- Hawkins RJ, Kennedy JC (1980). Impingement syndrome in athletes. *Am J Sports Med*; 8:151-8
- Heidt RS Jr, Sweeterman LM, Carlonas RL, Traub JA, Tekulve FX (2000). Avoidance of soccer injuries with preseason conditioning. *Am J Sports Med* 28:659-662.
- Hermens H, Freriks B, Disselhorst-Klug C, Rau G (2000). Development of recommendations for sEMG sensors and sensor placement procedures. *J Electromyogr Kinesiol*, 10:361-374.
- Hewett TE, Lindenfeld TN, Riccobene JV, Noyes FR (1999). The effect of neuromuscular training on the incidence of knee injury in female athletes. A prospective study. *Am J Sports Med* 27:699-706.

- Hewett TE, Stroupe AL, Nance TA, Noyes FR (1996). Plyometric training in female athletes. Decreased impact forces and increased hamstring torques. *Am J Sports Med* 24:765-773.
- Hiemstra L, Lo I, Fowler P (2001). Effect of fatigue on knee proprioception: implications for dynamic stabilization. *J Orthop Sports Phys Ther* 31:598-605.
- Hodges N, Franks I (2002). Modelling coaching practice: the role of instruction and demonstration. *J Sports Sci* 20:793-811
- Holm I, Fosdahl MA, Friis A, Risberg MA, Myklebust G, Steen H (2004). Effect of neuromuscular training on proprioception, balance, muscle strength, and lower limb function in female team handball players. *Clin J Sport Med* 14:88-94
- Hudak PL, Amadio PC, Bombardier C (1996). Development of an upper extremity outcome measure: the DASH (disabilities of the arm, shoulder and hand) [corrected]. The upper extremity collaborative group (UECG). *Am J Ind Med*; 29:602-8.
- Ireland ML, Wilson JD, Ballantyne BT, Davis IM (2003). Hip strength in females with and without patellofemoral pain. *J Orthop Sports Phys Ther*, 33:671-676.
- JIMÉNEZ, A. (Coord.) *Personal Training. Bases, Fundamentals and Applications*. Editorial INDE, Barcelona, 2005.
- JIMÉNEZ, A. (Coordinator). *New dimensions in strength training: Application of new methods, resources and technologies*. Editorial INDE, Barcelona, 2008.
- JIMÉNEZ, A. *Strength and Health. Musculoskeletal fitness, strength training and health*. Editorial Ergo, Barcelona, 2003.
- Jobe FW, Jobe CM (1983). Painful athletic injuries of the shoulder. *Clin Orthop Relat Res*; 1:117-24.
- Johansson K, Oberg B, Adolfsson L, Foldevi M (2002). A combination of systematic review and clinicians' beliefs in interventions for subacromial pain. *Br J Gen Pract*; 52:145-52.
- Kelly SM, Wrightson PA, Meads CA (2010). Clinical outcomes of exercise in the management of subacromial impingement syndrome: a systematic review. *Clin Rehabil*; 24:99-109
- Ketola S, Lehtinen J, Arnala I, Nissinen N, Westenius H, Sintonen H, et al (2009). Does arthroscopic acromioplasty provide any additional value in the treatment of shoulder impingement syndrome? : a two-year randomised controlled trial. *J Bone Joint Surg Br*; 91:1326-34.
- Khalil, T.; Abdel-Moty, E.; Rosomoff, R. and KOURY, J.. *Aquatic Therapy programing, Human Kinetics, Champaign, 1996. 2nd Edition. Lippincott-Raven Publishers. New York*
- Kibler WB (2006). Scapular involvement in impingement: signs and symptoms. *Instr Course Lect*; 55:35-43
- Kingma JJ, de Knikker R, Wittink HM, Takken T (2007). Eccentric overload training in patients with chronic achilles tendinopathy: a systematic review. *Br J Sports Med*; 41:e3

- Kolt, Snyder-Mackler, Physical therapy of sport and exercise. Edit. Elsevier, Madrid, 2004.
- Kromer TO, Tautenhahn UG, de Bie RA, Staal JB, Bastiaenen CH (2009). Effects of physiotherapy in patients with shoulder impingement syndrome: a systematic review of the literature. J Rehabil Med; 41:870-80
- Kuhn JE (2009). Exercise in the treatment of rotator cuff impingement: a systematic review and a synthesized evidence-based rehabilitation protocol. J Shoulder Elbow Surg; 18:138-60.
- Leroux JL, Thomas E, Bonnel F, Blotman F (1995). Diagnostic value of clinical tests for shoulder impingement syndrome. Rev Rhum Engl Ed; 62:423-8.
- Levangie P, Norkin C (2001). Joint Structure and Function: A Comprehensive Analysis. 3rd edition. Philadelphia: FA Davis Company
- Lewis JS, Green A, Wright C (2005). Subacromial impingement syndrome: the role of posture and muscle imbalance. J Shoulder Elbow Surg; 14:385-92.
- Magnussen RA, Dunn WR, Thomson AB (2009). Nonoperative treatment of midportion Achilles tendinopathy: a systematic review. Clin J Sport Med; 19:54-64
- Mascal CL, Landel R, Powers C (2003). Management of patellofemoral pain targeting hip, pelvis, and trunk muscle function: 2 case reports. J Orthop Sports Phys Ther, 33:647-660.
- McConnell J (2002). The physical therapist's approach to patellofemoral disorders. Clin Sports Med, 21:363-387.
- Michener LA, Walsworth MK, Burnet EN (2004). Effectiveness of rehabilitation for patients with subacromial impingement syndrome: a systematic review. J Hand Ther; 17:152-64
- Miranda H, Viikari-Juntura E, Martikainen R, Takala EP, Riihimäki H (2001). A prospective study of work related factors and physical exercise as predictors of shoulder pain. Occup Environ Med; 58:528-34.
- Moore K (1992). Clinically Orientated Anatomy. 3rd edition. Baltimore: Williams and Watkins
- Morrison DS, Frogameni AD, Woodworth P (1997). Non-operative treatment of subacromial impingement syndrome. J Bone Joint Surg Am; 79:732-7.
- Myers TW (2015). Anatomical pathways: myofascial meridians for manual and movement therapists. Elsevier: Barcelona.
- Nadler S, Malanga G, Bartoli L, Feinberg J, Prybicien M, Deprince M (2002). Hip muscle imbalance and low back pain in athletes: influence of core strengthening. Med Sci Sports Ex, 34:9
- Neer CS 2nd, Welsh RP (1997). The shoulder in sports. Orthop Clin North Am; 8:583-91.
- Niemuth PE, Johnson RJ, Myers MJ, Thieman TJ (2005). Hip muscle weakness and overuse injuries in recreational runners. Clin J Sports Med, 15:14-21
- NORDIN, M. and FRANKEL. Basic biomechanics of the musculoskeletal system. McGraw-Hill-Interamericana, Madrid, 2004.

- O'Dwyer C, Sainsbury D, O'Sullivan K (2010). Gluteus Medius Muscle Activation during Isometric Muscle Contractions. J Sport Rehab Accepted for publication
- Palastanga N, Field D, Soames R (2004). Anatomy and Human Movement. 4th edition. Edinburgh: Elsevier
- Peterson, L.; Whiting, W. Biomechanics of musculoskeletal injury. Human Kinetics. Champaign.1998
- Pffirmann CWA, Chung CB, Theumann NH, Trudell DJ, Resnick D (2001). Greater trochanter of the hip: attachment of the abductor mechanism and a complex of three bursae-MR imaging and MR bursography in cadavers and MR imaging in asymptomatic volunteers. Radiology, 221:469-477
- Rabin R, de Charro F (2001). EQ-5D: a measure of health status from the EuroQol group. Ann Med; 33:337-43
- Schmitz RJ, Riemann BL, Thompson T (2002). Gluteus medius activity during isometric closed-chain hip rotation. J Sport Rehab, 11:179-188.
- Snyder K, Earl J, O'Connor K, Ebersole K (2009). Resistance training is accompanied by increases in hip strength and changes in lower extremity biomechanics during running. Clin Biomech, 24:26-34.
- Soderberg G, Dostal W (1978). Electromyographic study of three parts of the gluteus medius muscle during functional activities. Phys Ther, 58:691-696
- Surface Electromyography for the Non-Invasive Assessment of Muscles Recommendations for sEMG Sensors, Sensor Placement and Location. [<http://www.seniam.org>]
- Thomee R (1997). A comprehensive treatment approach for patellofemoral pain syndrome in young women. Phys Ther; 77:1690-703
- Tyler T, Nicholas S, Mullaney M, McHugh M (2006). The Role of Hip Muscle Function in the Treatment of Patellofemoral Pain Syndrome. Am J Sports Med, 34:630-636.
- Tyler TF, Nicholas SJ, Roy T, Gleim GW (2000). Quantification of posterior capsule tightness and motion loss in patients with shoulder impingement. Am J Sports Med; 28:668-73.
- Waryasz G, McDermott A (2008). Patellofemoral pain syndrome (PFPS): a systematic review of anatomy and potential risk factors. Dyn Med, 7:1-14
- Williams P (1995). Gray's Anatomy. 37th edition. London: Churchill Livingstone
- Wilson G, Capen E, Stubbs N (1976). A fine wire electromyographic investigation of the gluteus medius and minimus muscles. Res Q, 47:824-828
- Zigmond AS, Snaith RP (1983). The hospital anxiety and depression scale. Acta Psychiatr Scand; 67:361-70.

In turn, in each of the class presentations, the scientific articles recommended reading for the students will be indicated.

10. EDUCATIONAL GUIDANCE AND DIVERSITY UNIT

From the Educational Guidance and Diversity Unit (ODI), we offer support to our students throughout their university life to help them achieve their academic achievements. Other pillars of our actions are the inclusion of students with specific educational support needs, universal accessibility in the different campuses of the university and equal opportunities.

This Unit offers students:

1. Accompaniment and follow-up through counseling and personalized plans for students who need to improve their academic performance.
2. In terms of attention to diversity, non-significant curricular adjustments are made, that is, in terms of methodology and evaluation, for those students with specific educational support needs, thus pursuing equal opportunities for all students.
3. We offer students different extracurricular training resources to develop various competencies that will enrich their personal and professional development.
4. Vocational guidance through the provision of tools and counseling to students with vocational doubts or who believe that they have made a mistake in their choice of degree program

Students in need of educational support can write to us at:

orientacioneducativa@universidadeuropea.es

11.SATISFACTION SURVEYS

Your opinion matters!

Universidad Europea encourages you to participate in satisfaction surveys to detect strengths and areas for improvement about the faculty, the degree program and the teaching-learning process.

Surveys will be available in the survey area of your virtual campus or through your e-mail.

Your assessment is necessary to improve the quality of the degree.

Thank you very much for your participation.