



COURSE DATA

Data Subject

Code	33224
Name	Physical exercise for quality of life
Cycle	Grade
ECTS Credits	6.0
Academic year	2022 - 2023

Study (s)

Degree	Center	Acad. year	Period
1312 - Degree in Physical Activity and Sport Sciences	Faculty of Physical Education and Sport Sciences	3	Other cases
1331 - Degree in Physical Activity and Sport Sciences (Ont)	Faculty of Physical Education and Sport Sciences	3	Other cases

Subject-matter

Degree	Subject-matter	Character
1312 - Degree in Physical Activity and Sport Sciences	20 - Physical exercise for quality of life	Obligatory
1331 - Degree in Physical Activity and Sport Sciences (Ont)	20 - Ejercicio físico para la calidad de vida	Obligatory

Coordination

Name	Department
COLADO SANCHEZ, JUAN CARLOS	122 - Physical and Sports Education

SUMMARY

Exercise for Life Quality is a subject that attempted to deepen the use of different means and methods of the sport sciences to improve the welfare of people. It is a subject of 3rd degree course and is compulsory and it has a workload of 6 ECTS credits.

The course will focus on the analysis of exercise as a help for improving the factors affecting the different dimensions of quality of life. This content will be offered ranging from social aspects to technical aspects that are mediating in the improvement and / or maintaining the health, and by extension in the enjoyment of life.



Specifically, during the academic year three major thematic areas will be held, namely:

Thematic Block I: Conceptualization of exercise to maintain the quality-of-life
Thematic block II: Ergonomics and safety during the development of physical exercise to maintenance of the quality of life;
Thematic block III: Prescription of exercise for maintaining quality of life.

The professor will use various teaching methods for both, the theoretical and the practical part. Lectures will be conducted, discussions will be led, and debates and practical level exercises will be enhanced based on guided discovery and action research.

An evaluation of the skills development of theoretical and practical will be performed through an integrated system that will include various group work, practical experiential sessions and a final exam.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

There are no special requirements beside those marked in the curriculum.

COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)

1312 - Degree in Physical Activity and Sport Sciences

- Apply the principles of fundamental rights, gender equality, equal opportunities, universal accessibility for people with disabilities, solidarity, environmental protection, the culture of peace and democratic values.
- Promote and evaluate the acquisition of enduring and autonomous habits of practising physical activity and sport.
- Plan, implement and evaluate physical activity and sports programmes targeted at special populations.
- Identify health risks derived from inappropriate physical and sporting activities and propose alternatives.
- Evaluate physical fitness and prescribe health-oriented physical exercises.
- Apply information and communication technologies (ICTs) in the field of physical activity and sport sciences.
- Develop leadership, interpersonal and teamwork skills.
- Develop habits of professional excellence and quality.



- Understand the effects of physical exercise on the structures and functions of the human body.
- Know the beneficial effects of physical exercise on human psychological and social dimensions.
- Understand the health adaptations of the fundamentals of fitness.
- Know, understand and know how to evaluate the determinants of quality of life and healthy lifestyles.
- Know and critically analyse the recommendations of the most important governmental institutions on the prescription of physical exercise for health in healthy sectors of the population.
- Know how to stimulate adherence to the activities and programmes for improving the quality of life.
- Know the different environments for promoting physical activity for health.
- Analyse critically the suitability of the different joint movements, from an ergonomic point of view, that are usually prescribed in sessions and programmes of physical fitness for health.
- Know and apply different procedures for evaluating healthy habits, physical function and risk factors for physical exercise according to the needs and characteristics of each individual.
- Prescribe physical exercise programmes to improve and/or maintain the quality of life based on its determinants and on a comprehensive model for acquiring healthy habits.
- Evaluate physical exercise programmes for the improvement and/or maintenance of quality of life.
- Select and know how to use the most appropriate individual-use equipment for each type of activity and population in the field of physical exercise for the maintenance of quality of life.
- Use the sources of certified scientific knowledge in the field of physical activity sciences applied to the maintenance and improvement of the quality of life.
- Develop capacities to operate according to the principles of excellence and ethics in the field of physical activity for the maintenance and improvement of the quality of life.
- Know how to apply the fundamental rights and the principles of equal opportunities in the field of physical activity for the maintenance and improvement of the quality of life.
- Develop appropriate skills for individual and group work in the field of physical activity for the maintenance and improvement of the quality of life.

LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)

LEARNING OUTCOMES

At the end of the academic year the student must be able to have at least the 50% of the competencies targeted in this teaching guide.

DESCRIPTION OF CONTENTS



1. Conceptualization of physical exercise to maintain the quality of life

Conceptualizing the determinants of health, quality of life, physical activity and exercise, and healthy lifestyles

Factors that may cause loss of quality of life and scientific evidence linking exercise and its maintenance

Areas for promoting and developing exercises to improve the quality of life

2. Ergonomics and safety during the development of exercise to maintain the quality of life

Hygiene habits and posture for the practice of physical activity

Ergonomic criteria for selecting and using individual ergonomic equipment

3. Prescription of exercise to maintain the quality of life

Assessment of lifestyle and the dimensions of quality of life: Assessment of hygiene, rest and nutrition. Evaluation of physical function by assessing the physical fitness and functional fitness. Assessment of psychological functioning and social interaction and function. Evaluation of health perceptions.

General and specific criteria for prescribing and developing exercise programs to maintain the quality of life in different stages: Childhood, adolescence, adulthood and old age. Pregnancy and menopause.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	45,00	100
Classroom practices	15,00	100
Attendance at events and external activities	5,00	0
Development of group work	25,00	0
Study and independent work	20,00	0
Readings supplementary material	30,00	0
Preparation of practical classes and problem	10,00	0
TOTAL	150,00	

TEACHING METHODOLOGY

The subject will be taught in accordance and coordination with the different subjects of this module.

In it, the theoretical content of the topics will be exposed through face-to-face classes, following documentary sources of maximum scientific rigor and recently updated (both in Spanish and English) while the student will be provided with teaching materials that will be the backbones for the theoretical and practical development of this subject. These classes will serve to fix the knowledge linked to the planned competences. In addition, in the practical classes, some of these contents will be experienced together with the immersion method in new applied knowledge, using all kinds of technological and



procedural means that are appropriate for this purpose.

From these theoretical and practical classes, the professors in those contents that they consider necessary could complementarily propose to the students the realization of certain personal or group theoretical-practical works, as appropriate, for whose realization they would have the support of the teaching staff in sessions. tutored in which the students could share with their classmates and with the teaching staff the doubts they find, obtain a solution to them and begin to carry out the skills of the module autonomously.

In addition, to achieve the expected competences in a more significant way, students will have to develop an individual work of study and assimilation of theoretical and practical knowledge and preparation of the proposed works (compulsory and complementary -if it were the case-), as well as it is recommended to attend in addition to some academic and/or practical act that can complement and/or reinforce the contents developed in the subject/matter.

EVALUATION

To evaluate the acquisition of the final competencies, the students must carry out:

(a) A theoretical final exam on all the contents developed in the subject. It will be a multiple-choice exam to choose in each question between different answer options. The theoretical exam will have a value of 40% of the final grade and must be compulsorily passed with a minimum grade of 5 points out of 10 in order to mediate with the rest of the grades of the subject and thus opt to pass it.

(b) Mandatory group presentation in writing and orally (only those groups that are designated for teaching reasons) of five expository works, their average value will correspond to 60% of the final grade and each of them must be compulsorily approved with a minimum grade of 5 points out of 10 to be able to mediate with the rest of the grades of the subject and thus opt to pass it. The oral presentation of the works will take place towards the end of the academic period of the subject and will be obligatory for all the members of the groups that are chosen. If a student does not present an expository work in a group in the first call, that or those works not presented must be delivered with the same requirements in the second call but individually and, in addition, providing an individual video recording of their oral presentations. The titles of the works that must be delivered are the following, specifying at the beginning of each course the specific aspects for its development and delivery:

-Work number 1. Promotion of activity and physical exercise for quality of life from an ecological model "The neighborhood on the move".

-Work number 2. Development of a session to improve the quality of life by improving postural habits.



-Work number 3. Creation of an informative blog on neuromuscular strength conditioning exercises with which to improve quality of life.

Work number 4. Critical and scientific analysis of materials/activities advertised to improve the quality of life through physical exercise.

-Work number 5. Development of promotional videos for social networks regarding the promotion of physical exercise for the quality of life in different groups.

(c) Throughout the development of the subject, the teaching staff may request the delivery of some workshops of practical application of contents as a result of the experience of the theoretical-practical sessions of the subject. If this were the case, these workshops would be mandatory and would be graded as "apt or not", and it is mandatory to have a grade of "apt" to have the option to pass the subject. The grade of "apt" will be achieved as long as all the formal requirements that the teaching staff will determine in writing for its development in each case are met.

(d) Exceeding the non-attendance quota (>20%) set by the university for the practical part of the subject will mean, in addition to overcoming the rest of the criteria set out above (a, b, c), the additional delivery of compensatory work of each session that exceeds the quota of absences allowed, which according to the student's casuistry of absences will be determined by the professor and will be delivered on the day of the final theoretical exam. These works will be of individual development and will be videos linked to the activities of the sessions that the student does not attend. These works will have a minimum duration of 10 minutes and they will be mandatory and will be graded as "apt or not", and it is mandatory to have the qualification of "apt" to have the option to pass the subject. The grade of "apt" will be achieved as long as all the formal requirements that the teaching staff will determine in writing for its development in each case are met.

If a student fails and must attend the second call, the qualifications of what he/she has had approved in the first call of that academic year will be "saved". If the student fails the subject on the second call, no grade from that academic year will be "saved" for subsequent academic years, in which they must retake it with all the requirements requested in order to pass it.

Additionally, and due to the imperative of the department, students must be warned of the following issues:

-The literal copy, total or partial, of other people's works presenting them as their own is considered unacceptable behavior in the academic field. On the other hand, and by the Law of Intellectual Protection, the total or partial reproductions of the works of others are usually prohibited, and their non-compliance may lead to the corresponding offenses or criminal offenses.

**REFERENCES****Basic**

- - ACSM (2021). ACSMs Guidelines for Exercise Testing and Prescription. (11th edition). Philadelphia: Wolters Kluwer.
- Behm, D.G. (2018). The Science and Physiology of Flexibility and Stretching. Implications and Applications in Sport Performance and Health. London: Routledge.
- Colado, J.C. (2018). Fitness en las salas de musculación. Barcelona: Inde, 5ª ed.
- Colado, J.C. (2004). Acondicionamiento físico eb el medio acuático. Barcelona: Paidotribo.
- Colado, J.C., and Chulvi, I. (2008). Criterios para la planificación y el desarrollo de programas de acondicionamiento muscular en el ámbito de la salud. En: Ejercicio físico en salas de acondicionamiento muscular: Bases científico-médicas para un ejercicio físico saludable. Rodriguez, P.L., ed. Madrid: Panamericana. Pp. 91-127.
- Colado, J.C., and Chulvi, I. (2008). Los programas de acondicionamiento muscular en las diferentes etapas de desarrollo madurativo y en determinadas alteraciones orgánicas. En: Ejercicio físico en salas de acondicionamiento muscular: Bases científico-médicas para un ejercicio físico saludable. Rodriguez, P.L., ed. Madrid: Panamericana. Pp. 128-153.
- Colado, J.C., Chulvi, I., Heredia, J.R. (2008). Criterios para el diseño de los programas de acondicionamiento muscular desde una perspectiva funcional. En: Ejercicio físico en salas de acondicionamiento muscular: Bases científico-médicas para un ejercicio físico saludable. Rodriguez, P.L., ed. Madrid: Panamericana. Pp. 154-167.
- - Chodzko-Zajko, W. (2013). ACSMs Exercise for Older Adult. Philadelphia: Wolters Kluwer.
- Faigenbuam, A.D. y col (2020). Essentials of Youth Fitness. Champaing: Human Kinetics.
- Heyward, V.H. (2008). Evaluación de la Aptitud Física y Prescripción del Ejercicio. (5ª edición). Madrid: Panamericana.
- Kendal , F. P. y col (2007). Kendalls Músculos Pruebas Funcionales Postura y Dolor. (5ª edición). Madrid: Marbán.
- McGill, S.M. (2015). El Mecánico de la Espalda. Editorial Autores de Argentina.
- Page, P. y col. (2010). Assessment and Treatment of Muscle Imbalance. The Janda Approach. Champaing: Human Kinetics.
- Weinberg, R.S., Gould, D. (2003). Foundations of sport and exercise psychology. Champaign, IL: Human Kinetics.

Additional

- - Behm, D.G. and Colado, J.C. (2012). The effectiveness of resistance training using unstable surfaces and devices for rehabilitation. Int J Sports Phys Ther., 7 (2), 226-241.
- Behm D.G. and Colado, J.C. (2013). Instability resistance training across the exercise continuum. Sports Health, 5 (6), 500-503.
- Campbell, K. L., Winters-Stone, K. M., Wiskemann, J., May, A. M., Schwartz, A. L., Courneya, K. S., Zucker, D. S., Matthews, C. E., Ligibel, J. A., Gerber, L. H., Morris, G. S., Patel, A. V., Hue, T. F., Perna, F. M., & Schmitz, K. H. (2019). Exercise Guidelines for Cancer Survivors: Consensus Statement from International Multidisciplinary Roundtable. Medicine and science in sports and exercise, 51(11), 2375-2390.



-
- Campos-Izquierdo, A. (2019). Ocupaciones, empleo y perfil de los Graduados en Ciencias de la Actividad Física y del Deporte en España. *Cultura, Ciencia y Deporte*, 15, 113-123.
 - Caspersen, C. J., Powell, K. E., & Christenson, G. M. (1985). Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. *Public health reports (Washington, D.C.: 1974)*, 100(2), 126131.
 - Colado, J.C., and García-Massó, X. (2009). Technique and safety aspects of resistance exercises: A systematic review of the literature. *The Physician and Sportsmedicine*, 37 (2), 104-111.
 - Colado et al. (2011). The progression of paraspinal muscle recruitment intensity in localized and global strength training exercises is not based on instability alone. *Arch Phys Med Rehabil.*, 92 (11), 1875-1883.
 - Colado, J.C. et al. (2020). Effects of strength training with variable elastic resistance across the lifespan: a systematic review. *Cultura, Ciencia y Deporte*, 15 (44), 147-164.
 - Fragala, M. S., Cadore, E. L., Dorgo, S., Izquierdo, M., Kraemer, W. J., Peterson, M. D., & Ryan, E. D. (2019). Resistance Training for Older Adults: Position Statement From the National Strength and Conditioning Association. *Journal of strength and conditioning research*, 33(8), 20192052.
 - Haseler, C., Crooke, R., & Haseler, T. (2019). Promoting physical activity to patients. *BMJ (Clinical research ed.)*, 366, l5230.
 - Pedersen, B. K., & Saltin, B. (2015). Exercise as medicine - evidence for prescribing exercise as therapy in 26 different chronic diseases. *Scandinavian journal of medicine & science in sports*, 25 Suppl 3, 172.
 - Stricker, P. R., Faigenbaum, A. D., McCambridge, T. M., & COUNCIL ON SPORTS MEDICINE AND FITNESS (2020). Resistance Training for Children and Adolescents. *Pediatrics*, 145(6), e20201011.
 - Thivel, D., Tremblay, A., Genin, P. M., Panahi, S., Rivière, D., & Duclos, M. (2018). Physical Activity, Inactivity, and Sedentary Behaviors: Definitions and Implications in Occupational Health. *Frontiers in public health*, 6, 288.
-