



IDENTIFYING DATA

Physical rehabilitation training for physical activity and sports

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|---------------------|---|----------|------|------------|
| Subject | Physical rehabilitation training for physical activity and sports | | | |
| Code | P02G050V01914 | | | |
| Study programme | (*)Grao en Ciencias da Actividade Física e do Deporte | | | |
| Descriptors | ECTS Credits | Choose | Year | Quadmester |
| | 6 | Optional | 4th | 1st |
| Teaching language | Spanish | | | |
| Department | | | | |
| Coordinator | Serrano Gómez, Virginia | | | |
| Lecturers | Serrano Gómez, Virginia | | | |
| E-mail | vserrano@uvigo.es | | | |
| Web | | | | |
| General description | | | | |

Competencies

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| Code | |
| A1 | Students will have shown they have sufficient knowledge and understanding of an area of study, starting after completion of general secondary education, and normally reaching a level of proficiency that, being mostly based on advanced textbooks, will also include familiarity with some cutting-edge developments within the relevant field of study. |
| A2 | Students will be able to apply their knowledge and skills in their professional practice or vocation and they will show they have the required expertise through the construction and discussion of arguments and the resolution of problems within the relevant area of study. |
| A3 | Students will be able to gather and interpret relevant data (normally within their field of study) that will allow them to have a reflection-based considered opinion on important issues of social, scientific and ethical nature. |
| A4 | Students will be able to present information, ideas, problems and solutions both to specialist and non-specialist audiences. |
| A5 | Students will acquire the learning skills that are required to pursue further studies with a high degree of independence. |
| B1 | Conceptualization and identification of the object of study of the Sciences of the Physical Activity and the Sport. |
| B2 | Knowledge and comprehension of the scientific literature of the area of the physical activity and the sport. |
| B3 | Knowledge and comprehension of the physiological factors and biomechanics that determine the practice of the physical activity and the sport |
| B5 | Knowledge and comprehension of the effects of the practice of the physical exercise on the structure and function of the human body. |
| B7 | Knowledge and comprehension of the foundations, structures and functions of the skills and bosses of the motricity humanizes. |
| B8 | Knowledge and comprehension of the structure function and development of the different manifestations of the motricity humanizes. |
| B12 | Application of the technologies of the information and communication (TIC) to the area of the Sciences of the Physical Activity and of the Sport. |
| B13 | Habits of excellence and quality in the professional exercise. |
| B14 | Managing of the scientific basic information applied to the physical activity and to the sport in his different manifestations. |
| B17 | Aptitude to plan, to develop and control the process of training in his different levels. |
| B18 | Aptitude to apply the physiological beginning, biomechanics, behavioral and social, to the different fields of the physical activity and the sport. |

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| B19 | Aptitude to evaluate the physical condition and to prescribe physical exercise orientated towards the health |
| B20 | Aptitude to identify the risks that stem for the health of the practice of physical inadequate activities. |
| B21 | Aptitude to plan, to develop and control the accomplishment of programs of sport activities. |
| B23 | Aptitude to select and to be able to use the material and sports equipment adapted for every type of activity. |
| C7 | Aptitude to plan, to develop and control the process of training in the different levels |
| C8 | Aptitude to apply the physiological biomechanical, comportamental and social principles, during the process of the sports training |
| C9 | Aptitude to promote and evaluate the formation of lasting and autonomous habits of practical physical and sports activity in the population who realizes sports training |
| C10 | Aptitude to identify the risks, which stem for the health of the sportsmen, of the inadequate practice of physical activities in the context of the sports training |
| C11 | Aptitude to plan, to develop and to control the accomplishment of programs of sports training |
| C12 | Aptitude to select and to be able to use the material and sports equipment adapted for every type of activity of sports training |
| C13 | Aptitude to evaluate the physical condition and to prescribe physical exercise orientated towards the health |
| C14 | Aptitude to promote and evaluate the formation of lasting and autonomous habits of practice of physical activity and sport between the adult population, older and disabled people. |
| C15 | Aptitude to identify the risks that stem for the health of the development of the physical inadequate activities between the population who realizes physical practice orientated to the health |
| C16 | Aptitude to apply the physiological, biomechanical, comportamental and social principles to the field of the physical activity and the health |
| C17 | Aptitude to plan, to develop and control the accomplishment of programs of physical - sports activities orientated to the health |
| C18 | Aptitude to select and to be able to use the material and sports suitable equipment, for every type of activity that the population of adults practises, older and disabled people. |

Learning outcomes

| Expected results from this subject | Training and Learning Results | | |
|--|-------------------------------|---|---|
| Define rehabilitation training, preventive training, motor relearning, return to daily physical activity and return to sports | A4 | B1 B2 | C16 C17 |
| Differentiate between high medical, high sportive and high functional. | A1 A3 | B1 B2 | C10 C16 C17 C18 |
| Understand the roles and the relations between the components of a team interdisciplinary for the planning and the development of a process of rehabilitation. | A1 A2 | B2 B8 B14 B17 B18 B19 B20 | C7 C8 C9 C15 C16 |
| Know the historical evolution of the educational system in our country. | | | |
| Describe the protocols of physical training more usual in processes of recovery of injuries. | A1 A2 A4 | B18 B19 B21 | C7 C8 C10 C13 C14 C15 C18 |
| Explain the fundamental appearances that have to consider in a process of training of rehabilitation. | A1 A4 A5 | B1 B2 B17 B18 B19 | C7 C8 C9 C11 C12 |
| Identify the most prevalent locomotor device injuries in a context of physical activity practice. | A1 A5 | B7 B17 B18 B19 B23 | C10 C11 C13 C14 |
| Determine the aims, the methods and the systems for the control of the quality in a training of rehabilitation. | A3 A4 | B18 B19 B20 B21 | C7 C8 C11 C18 |

Program of individual form, safe and controlled the contents selected for a training of rehabilitation.

A1 B2 C7
A3 B13 C11
A5 B17 C13
B18 C14
C15
C17
C18

Determine the optimum load that improve the security and efficiency in programs of intervention.

A1 B1 C7
A5 B2 C8
B3 C11
B12 C15
B13 C16
B14 C17
B19
B20

Apply strategies of prevention for different contexts of practice.

A1 B5 C7
A2 B7 C8
A3 B19 C13
B20 C14
B23 C16
C17
C18

Contents

Topic

| | |
|---|---|
| 1. Definition of key concepts. | Contextualización. Concepts. Aims and basic principles. Sport therapist competencies. |
| 2. Multidisciplinary model for the recovery of injuries. | Multidisciplinary team like active part of the process. |
| 3. Injuries of the device locomotor: prevalence, factors of risk and effect of the physical exercise in prevention, quality of life and recovery. | Fundamental principles of the sportive injuries. Factors of risk and effect of the exercise in the prevention and quality of life. Stages and aims of the harmful process. Injuries more frequent of the device locomotor. |
| 4. Methodological criteria for the training of rehabilitation. | Methodological criteria and of assessment. Prevention and planning of the functional recovery. |
| 5. Strategies of physical training for the prevention of injuries of the device locomotor. | The prevention of injuries from the physical training. Cases of prevention of injuries of the device locomotor. |
| 6. Strategies of physical training for the recovery of the physical condition in sporty population and population no sporty. | Recovery of injuries from the training in different types of populations. Cases of recovery of injuries in sporty population and no sporty. |
| 7. Procedures of evaluation and control in a process of training of rehabilitation. | Assessment of the physical qualities of the. Turn to the sport from a perspective objectifiable and quantifiable. |

Planning

| | Class hours | Hours outside the classroom | Total hours |
|--------------------------|-------------|-----------------------------|-------------|
| Mentored work | 1 | 40 | 41 |
| Lecturing | 18 | 0 | 18 |
| Case studies | 4 | 10 | 14 |
| Problem solving | 4 | 10 | 14 |
| Portfolio/dossier | 1 | 15 | 16 |
| Laboratory practical | 20 | 7.5 | 27.5 |
| Presentation | 2 | 10 | 12 |
| Flipped Learning | 1 | 5 | 6 |
| Objective questions exam | 1.5 | 0 | 1.5 |

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

Methodologies

| | Description |
|---------------|---|
| Mentored work | The student, in small group, elaborates a document on the thematic of the matter agreed previously with the professor/to. |

| | |
|----------------------|---|
| Lecturing | <p>The character of the matter does necessary to combine several types of methodologies, depending on the nature of the aims to reach and the contents to treat. It will plead for an active methodology, alternating exhibitions classroom and work in small group in the theoretical sessions and experience of the different proposals of tasks (of the professor and of the own students) in the sessions practise.</p> <p>Besides, the student will have of a virtual support of support to the teaching, through the platform FEAR (http://www.uvigo.es/faitic), with which will be able to make a partially on-line follow-up of the matter.</p> <p>- Organisation of the teaching:</p> <p>The sessions of theoretical and practical character will develop in schedule and location fixed by the centre.</p> |
| Case studies | Activity in which they formulate studies of case and exercises related with the subject that the student has to develop |
| Problem solving | Activity in which they formulate problems and/or exercises related with the subject. The student has to develop the suitable or correct solutions by means of the exercising of routines, the application of formulas or algorithms, the application of procedures of transformation of the available information and the interpretation of the results. It is used to use as I complement of the classroom. |
| Portfolio/dossier | Document where collect practical and exercises resolved. |
| Laboratory practical | Activities of application of the knowledges to concrete situations and of acquisition of basic skills and procedural related with the matter object of study. |
| Presentation | Presentation and exhibition of works and practical |
| Flipped Learning | The student will receive through the platform of teleconference faitic documentation so that it can work on her and later can pose to the professor doubt or problems of learning related with these contents |

Personalized assistance

Methodologies Description

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|------------------|---|
| Flipped Learning | In the schedule of tutorials will resolve concrete doubts on the practical contents. Like consequence of the COVID-19 and in accordance with the extraordinary and urgent measures for or development of the educational organisation in the course 2020/2021 in case of sanitary crisis, approved by the Council of Gobierno of 12 June 2020 and of the Resolution Rectoral of 17 June 2020 for his implementation, elaborated an instruction from the VOAP for the preparation of the educational guides. In base to this, the tutorials of this matter in case of burgeon of the COVID-19 will be attended by means of virtual modality, well through the virtual dispatches of the professors (2438, prof. Dr. Virginia Serrano Gómez), or of email. |
| Mentored work | In the schedule of tutorials will resolve concrete doubts on the practical contents. Like consequence of the COVID-19 and in accordance with the extraordinary and urgent measures for or development of the educational organisation in the course 2020/2021 in case of sanitary crisis, approved by the Council of Gobierno of 12 June 2020 and of the Resolution Rectoral of 17 June 2020 for his implementation, elaborated an instruction from the VOAP for the preparation of the educational guides. In base to this, the tutorials of this matter in case of burgeon of the COVID-19 will be attended by means of virtual modality, well through the virtual dispatches of the professors (2438, prof. Dr. Virginia Serrano Gómez), or of email or by means of the forums of the platform of teleconference faitic. |

Assessment

| | Description | Qualification | Training and Learning Results |
|--------------------------|---|---------------|-------------------------------|
| Mentored work | The student, in small group, elaborates a document on the thematic of the matter agreed previously with the professor/to. | 20 | |
| Portfolio/dossier | Dossier of exercises and practical | 15 | |
| Presentation | Presentation/ exhibition of works and practical | 5 | |
| Objective questions exam | Examination of objective questions | 60 | |

Other comments on the Evaluation

All students, whether they attend class or not, have the right to be evaluated (by examination or as established by the teaching guide).

a) In the first call, the exam will be assessed at 60%, the work at 20%, presentations at 5%, and the dossier/practical sessions at 15% (they must attend at least 80% of the sessions). Students who do not attend 80% of the sessions will have to take a practical exam and/or an extra development question/s will be included in the short answer exam/test.

It is essential to pass the theoretical exam with a minimum score of 5 points in order to pass the subject.

b) If the subject is not passed in the first call, the competences not acquired will be evaluated in the 2nd call. In this 2nd edition the exam will have a valuation of 80%. The dossier of exercises 5% and the work 15% (these will be a requirement to be able to take the exam).

c) The official dates of the exams can be consulted on the faculty's website.

Sources of information

Basic Bibliography

Complementary Bibliography

Bahr, R., **Lesiones deportivas: diagnóstico, tratamiento y rehabilitación.**, Médica Panamericana, 2007

Balius, R., Pedret, C., **Lesiones musculares en el deporte.**, Médica Panamericana, D.L., 2013

Boyle, M., **El entrenamiento funcional aplicado a los deportes.**, Ed. Tutor., 2017

Chicharro, J.L. y Sánchez, D., **Fisiología y Fitness para corredores.**, Ed. Prowellness, 2014

Doral, M. y Karlsson, J., **Sports Injuries: Prevention, Diagnosis, Treatment and Rehabilitation.**, Ed. SpringerVerlag., 2015

Freese, J., **Fitness Terapéutico.**, Paidotribo, 2006

García, O. & Serrano, V. (Coord.), **Entrenamiento Personal. Guía para el desarrollo profesional**, Médica Panamericana, 2017

Hall, C.M., Brody, L.T., **Ejercicio terapéutico. Recuperación Funcional.**, Paidotribo, 2006

Joyce D., Lewindo D., **Sports Injury Prevention and Rehabilitation : Integrating Medicine and Science for Performance Solutions. London.**, Taylor and Francis Ltd., 2016

Mayr, H. y Zaffagnini, S., **Prevention of Injuries and Overuse in Sports: Directory for Physicians, Physiotherapists, Sport Scientists and Coaches**, Ed. ESSKA, 2015

Romero, D., Tous, J., **Prevención de lesiones en el deporte. Claves para un rendimiento deportivo óptimo**, Médica Panamericana, 2010

Recommendations

Subjects that are recommended to be taken simultaneously

Physical exercise and wellbeing programs/P02G050V01910

Subjects that it is recommended to have taken before

Human anatomy: Human anatomy and kinesiology/P02G050V01201

Fitness activities/P02G050V01901

Biomechanics of sports techniques/P02G050V01903

Planning and methodology in sports training 1/P02G050V01502

Planning and methodology in sports training 2/P02G050V01604

Evaluation and prescription of physical exercise for health/P02G050V01503

Contingency plan

Description

Like consequence of the COVID-19 and in accordance with the extraordinary and urgent measures for or development of the educational organisation in the course 2020/2021 in case of sanitary crisis, approved by the Council of Gobierno of 12 June 2020 and of the Resolution Rectoral of 17 June 2020 for his implementation, elaborated an instruction from the VOAP for the preparation of the educational guides.

In base to this, the teaching of this matter in case of burgeon of the COVID-19 will be by means of virtual face-to-face modality, in which neither the professor neither the students assist to the classroom of fitness. The classes and the evaluation carried out by remote campus and by means of the platform *moodle. Arrived the case would activate this modality by means of RR.

They keep the contents of the matter, so many theorists like practical and the system of evaluation.

The educational methodology in this case will base fundamentally in the reverse learning "Flipped Learning" in replacement of the others methodologies, where the student will work of autonomous form the documents facilitated by the professor through the platform of teledocencia Fatic and in the virtual face-to-face classes will pose and will resolve the problems, doubts and lacks detected by the student and by the professor.