



## IDENTIFYING DATA

### Fitness activities

|                     |                                                                                                                                 |          |      |            |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------|----------|------|------------|
| Subject             | Fitness activities                                                                                                              |          |      |            |
| Code                | P02G050V01901                                                                                                                   |          |      |            |
| Study programme     | Grado en Ciencias de la Actividad Física y del Deporte                                                                          |          |      |            |
| Descriptors         | ECTS Credits                                                                                                                    | Choose   | Year | Quadmester |
|                     | 6                                                                                                                               | Optional | 3rd  | 1st        |
| Teaching language   | Spanish<br>Galician                                                                                                             |          |      |            |
| Department          |                                                                                                                                 |          |      |            |
| Coordinator         | Alonso Fernández, Diego                                                                                                         |          |      |            |
| Lecturers           | Alonso Fernández, Diego                                                                                                         |          |      |            |
| E-mail              | diego_alonso@uvigo.es                                                                                                           |          |      |            |
| Web                 |                                                                                                                                 |          |      |            |
| General description | The course aims to provide students with an overview of one of the main professional options of the degree: fitness activities. |          |      |            |

## Training and Learning Results

|      |                                                                                                                                                                                                                         |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Code |                                                                                                                                                                                                                         |
| B2   | Knowledge and comprehension of the scientific literature of the area 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.                                                                                    |
| 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.                                                                                                                                                          |
| B24  | Action inside the ethical beginning necessary for the correct professional exercise.                                                                                                                                    |
| B25  | Skill of leadership, capacity of interpersonal relation and teamwork.                                                                                                                                                   |
| B26  | Adjustment to new situations, the resolution of problems and the autonomous learning.                                                                                                                                   |
| 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                                                |
| C24  | Aptitude to design, to develop and evaluate the processes of education - learning relative to the physical - sports recreative activity, with attention to the individual and contextual characteristics of the persons |
| C26  | Aptitude to select the material and sports equipment adapted for every type of physical - sports recreative activity                                                                                                    |
| C28  | Aptitude to apply the physiological biomechanical, comportamental and social principles, in the physical - sports recreative activities                                                                                 |
| C29  | Aptitude to identify the risks that stem for the health, of the practice of physical inadequate activities in the medical instructors of physical - sports recreative activity                                          |

## Expected results from this subject

| Expected results from this subject                                                                                                                                                                       | Training and Learning Results |                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------|
| The students will be able of *conocer *y comprise bases of the activities of *fitness.                                                                                                                   | B2<br>B5<br>B12<br>B13<br>B24 |                                |
| The students will be able to design, develop and evaluate the processes of And-To relative the activities of *fitness, with attention to the individual characteristics and *contextuales of the people. | B5<br>B25                     | C9<br>C24<br>C26<br>C28<br>C29 |
| The students will be able to comprise wool scientific literature of the field of the activities of *fitness.                                                                                             | B2<br>B5                      |                                |

|                                                                                                                                                          |                   |                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------|
| The students will be able to promote the training of frocks *perdurables and autonomous of practises of activity of *fitness.                            | B13<br>B24<br>B25 | C9<br>C28<br>C29        |
| The students will be *capacades to identify the risks that derive stop the health of the practice of the activities of *fitness.                         | B24               | C9<br>C26<br>C28<br>C29 |
| The students will be able to select and know use the material and suitable sportive equipment stop the activities of *fitness.                           | B26               | C24<br>C26<br>C29       |
| The students will be able to apply the principles *fisiológicos, *biomecánicos, *comportamentales and social to the field of the activities of *fitness. | B5<br>B24         | C28                     |

## Contents

### Topic

|                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SUBJECT 1. Theory and practice of the physical exercise and welfare in collective classes         | <p>SUB-THEME I: Concept and evolution of the fitness</p> <p>Sub-theme I.1. Concept and evolution of the fitness</p> <p>Sub-theme I.2. The fitness in the actuality</p> <p>Sub-theme I.3. The sector of the services of fitness</p> <p>Sub-theme I.4. The users of the fitness</p> <p>SUB-THEME II: The polyvalent technician of fitness</p> <p>Sub-theme II.1. Characteristics and training</p> <p>Sub-theme II.2. Personal and social skills</p> <p>Sub-theme II.3. Guidelines for his professional development</p>                                                                                                                                                                                                                                                                                                                                                                 |
| SUBJECT 2. Tendencies of the fitness and physical analysis in collective classes                  | <p>SUB-THEME III: Activities of fitness: the room □cardio-fitness□</p> <p>Sub-theme III.1. Equipment and operation of a room □cardio-fitness□ current.</p> <p>Sub-theme III.2. Basic guidelines of training in room</p> <p>Sub-theme III.3. Security and prevention of injuries</p> <p>Sub-theme III.4. The functional training in the room cardio-fitness</p> <p>SUB-THEME IV: Activities of fitness: current tendencies</p> <p>Sub-theme IV.1. H.I.I.T.</p> <p>Sub-theme IV.2. Tono with musical support</p> <p>Sub-theme IV.3. Running</p> <p>Sub-theme IV.4. Cross fit</p> <p>Sub-theme IV.5. Eccentric training</p> <p>Sub-theme IV.6. Training in suspension: TRX</p> <p>Sub-theme IV.7. Core training</p> <p>Sub-theme IV.8. Training propioceptive</p> <p>Sub-theme IV.9. Stretching Global Active</p> <p>Sub-theme IV.10. F.N.P.</p> <p>Sub-theme IV.11. Method Pilates</p> |
| SUBJECT 3. Didactic and methodological appearances of the physical exercise with musical support. | <p>SUB-THEME IV: Activities of fitness: current tendencies</p> <p>Sub-theme IV.12. Tono with musical support</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## Planning

|                                                       | Class hours | Hours outside the classroom | Total hours |
|-------------------------------------------------------|-------------|-----------------------------|-------------|
| Lecturing                                             | 15          | 5                           | 20          |
| Mentored work                                         | 4           | 15                          | 19          |
| Laboratory practical                                  | 26          | 9                           | 35          |
| Presentation                                          | 4           | 15                          | 19          |
| Autonomous problem solving                            | 5           | 10                          | 15          |
| Objective questions exam                              | 2           | 4                           | 6           |
| Report of practices, practicum and external practices | 2           | 8                           | 10          |
| Essay                                                 | 6           | 20                          | 26          |

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

## Methodologies

|               | Description                                                                                                                        |
|---------------|------------------------------------------------------------------------------------------------------------------------------------|
| Lecturing     | Expository activities of teacher and student. Exhibitions, seminars, presentation of exercises, works or projects to be developed. |
| Mentored work | Resolution of exercises in the classroom/laboratory under the teacher's guidance.                                                  |

|                            |                                                                                                 |
|----------------------------|-------------------------------------------------------------------------------------------------|
| Laboratory practical       | Practical implementation of different fitness trends and development of basic sessions.         |
| Presentation               | Practical activity where the student must be responsible for its design, planning and approach. |
| Autonomous problem solving | Search for information based on a subsequent practical approach to the contents.                |

### Personalized assistance

| Methodologies              | Description                                                                                                                                                             |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lecturing                  | In the classroom or by telematic means on the remote campus, the MOOVI platform or e-mail by prior arrangement.                                                         |
| Mentored work              | In the practical classroom or during tutoring hours or by telematic means through the remote campus, the MOOVI platform or e-mail by prior arrangement.                 |
| Presentation               | In the theoretical classroom and practical sessions or by telematic means on the remote campus, the MOOVI platform or e-mail by prior arrangement.                      |
| Autonomous problem solving | In the theoretical and practical sessions and during tutoring hours or by telematic means through the remote campus, the MOOVI platform or e-mail by prior arrangement. |
| Laboratory practical       | In the practical classroom or during tutoring hours or by telematic means through the remote campus, the MOOVI platform or e-mail by prior arrangement.                 |

### Assessment

|                                                       | Description                                                                                                                                                                                                                            | Qualification | Training and Learning Results                                  |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------|
| Lecturing                                             | During some theory sessions there will be interactive group exercises where points will be awarded in the final grade depending on the final position obtained.                                                                        | 5             | B2 C9<br>B5 C24<br>B12 C26<br>B13 C28<br>B24 C29<br>B25<br>B26 |
| Presentation                                          | The students will develop a session of fitness complete like responsible monitors.                                                                                                                                                     | 25            | B2 C9<br>B5 C24<br>B12 C26<br>B13 C28<br>B25 C29<br>B26        |
| Objective questions exam                              | Overall evaluation of the learning process and acquisition of skills and knowledge: The theoretical exam may consist of short questions and/or multiple choice questions on the different contents of the course.                      | 40            | B2 C9<br>B5 C24<br>B12 C26<br>B13 C28<br>B25 C29<br>B26        |
| Report of practices, practicum and external practices | The student must compile the sessions (contents, objectives and tasks) of the practical classes by critically analyzing each one of them. In order to do so, the student must attend at least 85% of the scheduled practical sessions. | 15            | B5 C9<br>B13 C26<br>B24 C28<br>B26 C29                         |
| Essay                                                 | The students will develop diverse tasks proposed through the platform of teledoc Moovi that will have a deadline of presentation to be able to be evaluated.                                                                           | 15            | B2 C9<br>B5 C24<br>B12 C26<br>B13 C28<br>B25 C29<br>B26        |

### Other comments on the Evaluation

All students, whether or not they attend classes, have the right to be evaluated (by means of an exam or in the manner established in the teaching guide).

#### Continuous evaluation:

a) Evaluation ATTENDING STUDENTS (attending at least 85% of the programmed practical sessions):

- It is essential to pass the theoretical exam with a minimum grade of 5 points to pass the course. If this is not the case, the rest of the grades will be kept for subsequent exams.

- If the subject is not passed in the first call, the competences not acquired will be evaluated in the July call.

- In the second call of the same academic year, the grades of the first call will be maintained.

#### **Global evaluation:**

b) Evaluation of NON-ATTENDING STUDENTS (attends less than 85% of practical sessions):

- In any case the evaluation criteria will be maintained and will be previously consulted with the teacher of the subject when students have not attended regularly during the course.

- The competencies of the subject will be evaluated in a single test of a theoretical (50%) and practical (50%) nature that must be passed with a minimum grade of 5.

c) The official dates of the exams can be consulted on the web page of the Faculty of Education and Sport Sciences:

<http://fcced.uvigo.es/gl/>

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#### **Sources of information**

##### **Basic Bibliography**

Salinas, N., **Manual para el técnico de sala de fitness.**, Paidotribo, 2005

Earle, R.W. y Baechle, T.R., **Manual NSCA. Fundamentos del entrenamiento personal.**, Paidotribo, 2008

Hoeger, W.W.K. y Hoeger, S.A., **Fitness and wellness**, 9a, Wadsworth, Cengage Learning., 2009

Thompson, W.R., **ACSM's guidelines to exercise testing and prescription.**, Lippincott, Williams & Wilkins., 2009

##### **Complementary Bibliography**

Colado Sánchez, J.C., **Fitness en las salas de musculación**, INDE, 1996

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Isidro, F., Heredia, J.R., Pinsach, P. y Costa, M.R., **Manual del entrenador personal. Del fitness al wellness.**, Paidotribo, 2007

Dwyer, G.B., & Davis, S.E., **ACSM's health-related physical fitness assessment manual.**, Lippincott, Williams & Wilkins., 2008

Lieberman et al., **Foot strike patterns and collision forces in habitually barefoot versus shod runners**, Nature, 2010

Klika B. & Jordan C., **HIGH INTENSITY CIRCUIT TRAINING USING BODY WEIGHT: Maximum Results With Minimal Investment**, ACSM'S Health & Fitness Journal, 2013

S A Costigan, N Eather, R C Plotnikoff, D R Taaffe, D R Lubans, **High-intensity interval training for improving health-related fitness in adolescents: a systematic review and meta-analysis**, Br J Sports Med, 2015

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Espejo-Antúñez et al., **The impact of proprioceptive exercises on balance and physical function in institutionalized older adults: A randomized controlled trial**, ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION, 2020

Vera-Garcia et al., **Progressions of core stabilization exercises based on postural control challenge assessment**, European Journal of Applied Physiology, 2020

Xu et al., **Effects of Foot Strike Techniques on Running Biomechanics: A Systematic Review and Meta-analysis**, SPORTS HEALTH, 2020

Gardiner et al., **injury risk and injury incidence rates in crossfit**, The Journal of Sports Medicine and Physical Fitness, 2020

Matos et al., **Analysis of the pain symptoms, flexibility, and hydroxyproline concentration in individuals with low back pain submitted to Global Postural Re-education and stretching**, Pain Management, 2020

Schmidt et al., **Influence of Pilates Method on Nonspecific Lumbar Pain**, Arquivos Brasileiros de Neurocirurgia, 2020

Rustaden et al., **Similar Energy Expenditure During BodyPump and Heavy Load Resistance Exercise in Overweight Women**, Frontiers in Physiology, 2020

Alonso-Fernandez et al., **Impact of Asking L-PROTOCOL on muscle architecture, flexibility and sprint performance**, Int. Journal of Sports Medicine, 2021

Alonso-Fernandez et al., **Acute impact of Nordic hamstring exercise on sprint performance after 24, 48 and 72 hours**, Sports Biomechanics, 2021

Alonso-Fernandez et al., **Effects of Copenhagen Adduction Exercise on Muscle Architecture and Adductor Flexibility**, IJERPH, 2022

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**Recommendations****Subjects that continue the syllabus**

Physical exercise and wellbeing programs/P02G050V01910

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**Subjects that it is recommended to have taken before**

Biomechanics of sports techniques/P02G050V01903

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**Other comments**

To face the subject is important to have a good theoretical base of:

- Anatomy and kinesiology human.
  - Physiology of the exercise.
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