



COURSE DATA

DATA SUBJECT

Code: 33210
Name: Swimming
Cycle: Undergraduate Studies
ECTS Credits: 6
Academic year: 2025-26

STUDY (S)

| Degree | Center | Acad. year | Period |
|-------------------------------------------------------------|------------------------------------------------------|------------|-------------------------------|
| 1312 - Degree in Physical Activity and Sport Sciences | Facultat de Ciències de l'Activitat Física i Esports | 3 | Second quarter, First quarter |
| 1331 - Degree in Physical Activity and Sport Sciences (Ont) | Facultat de Ciències de l'Activitat Física i Esports | 3 | First quarter |

SUBJECT-MATTER

| Degree | Subject-matter | Character |
|-------------------------------------------------------------|------------------------------------------|------------|
| 1312 - Degree in Physical Activity and Sport Sciences | Foundations of individual sports | COMPULSORY |
| 1331 - Degree in Physical Activity and Sport Sciences (Ont) | Fundamentos de los Deportes Individuales | COMPULSORY |

COORDINATION

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SUMMARY

The aquatic activities and particularly swimming are physical activities that are developed in a environment for that the human being is not adapted from an evolutionary point of view. For this reason, it is an ontogenetic and not filogenetic movement. Consequently, the type of methodology to use in the learning process determines the students' skills much more than in terrestrial activities.

So, the main objective of this subject will be to make the students know and understand the particularities of the human movement in the aquatic environment and the different possibilities of development. From this knowledge, the student must be able to carry out aquatic programs adapted to the users, facilities and available materials.



PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

OTHER REQUIREMENTS

None

COMPETENCES / LEARNING OUTCOMES

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Apply information and communication technologies (ICT) to the field of individual sports.

Apply the principles of fundamental rights, gender equality, equal opportunities, universal accessibility for people with disabilities, the culture of peace and democratic values.

Design, implement and evaluate the teaching-learning processes related to physical activity and sport, paying attention to the individual, collective and contextual characteristics of people.

Develop leadership, interpersonal and teamwork skills.

Develop resources to adapt to new situations and to solve problems, and for independent learning and creativity.

Know and understand the areas of application of individual sports (athletics, gymnastics and swimming).

Know and understand the fundamentals, structures and functions of human motor skills and movement patterns.

Know and understand the fundamentals of game play and sport.

Know and understand the historical evolution of individual sports (athletics, gymnastics and swimming).

Know and understand the regulations of individual sports (athletics, gymnastics and swimming).

Know and understand the teaching fundamentals of individual sports (athletics, gymnastics and swimming).

Know and understand the technical and tactical fundamentals of individual sports (athletics, gymnastics and swimming).

Plan, implement and evaluate the motor skills training process at its different levels and practice environments.

Select and know how to use sports material and equipment, suitable for each type of activity and population.



DESCRIPTION OF CONTENTS

1. Historical origins of swimming

Tema I.1. The aquatic activity. Historic evolution.
Tema I.2. The swimming competition. Origins and evolution.
Tema 2

2. Physical and biological bases of swimming

Tema II.1. Physical and biological bases of the human locomotion in water.

3. The learning process in swimming. Drills and games for beginners

Tema III.1. Basic motor skills in aquatic environment.
Tema III.2. Teaching basic motor skills.
Tema III.3. Material, facilities, health and safety at aquatic facilities.

4. Strokes technique, starts and turns. Learning exercises

Tema IV.1. Common aspects of strokes technique.
Tema IV.2. Front crawl stroke, start and turn.
Tema IV.3. Butterfly stroke, start and turn.
Tema IV.4. Breaststroke, start and turn.
Tema IV.5. Backstroke, start and turn.
Tema IV.6. Individual medley turns.

WORKLOAD

PRESENCIAL ACTIVITIES

| Activity | Hours |
|---------------------|--------------|
| Classroom practices | 60,00 |
| Total hours | 60,00 |

NON PRESENCIAL ACTIVITIES

| Activity | Hours |
|--------------------------------|-------|
| Attendance at other activities | 0,00 |
| Individual or group project | 70,00 |
| Independent study and work | 16,00 |
| Preparation of lessons | 0,00 |



| | |
|---------------------------------------|--------------|
| Preparation for assessment activities | 4,00 |
| Resolution of case studies | 0,00 |
| Total hours | 90,00 |

TEACHING METHODOLOGY

1- Group learning with the teacher

The beginning of each session (15 min) will serve to establish the theoretical basis of the following practical drills. Next, the students will access dressing rooms and the facility (8-10 mins). The next 90-100 minutes the students will experiment in a practical way the contents already explained. In the swimming pool, students will experience in a practical way, the contents taught in the classroom and, increasingly, must reach the level of performance required

2- Team work

Carrying out this type of work, the student will be able, besides the motivation, to analyze and to process the information, and it also will promote the interpersonal relationships, the problems, hopes and solutions sharing of team work.

3- Tutoring

Tutoring will be held individually or in groups, either in the tutoring timetable, during classes or through the virtual classroom.

4- Individual study and forum participation

It is about conducting the student into learning-oriented activities. The model to apply is participatory, where the student gathers information, analyzes, presents activities and comes to conclusions.

EVALUATION

or do not submit their work will be classified as "NOT PRESENTED". This procedure will be applied both in the first and in the second call.

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REFERENCES



- Camarero, S. y Tella, V. (1997) Natación. Aplicaciones Teóricas y Prácticas. Ed. Promolibro. - Chollet, D. (2003) Natación deportiva. Ed. INDE. - Conde, E., Daguerre, J., Fuentes, F., Gosálvez, M., Joven, A., Reyeros, A. (1998) Curso de Monitor. E.N.E. Real Federación Española de Natación. - Dubois, C. y Robin, J.P. (1992) Natación. De la escuela a las asociaciones deportivas. Ed. Revue eps. - González, C. y Sebastián, E. (2000) Actividades acuáticas recreativas. Ed. Inde. - Guzmán, R. J. (1998) Swimming drills for every stroke. Ed. Human Kinetics.
- Iguarán, J. (1972) Historia de la natación antigua y de la moderna de los Juegos Olímpicos. Ed. Valverde S.A. - Llana, S. (2001) El análisis biomecánico en natación. III Jornadas sobre actividades acuáticas y natación deportiva. F.C.C.D. Universidad de Extremadura. - Llana, S. y Pérez, P. (2007) Evolución histórica de las metodologías de enseñanza de la técnica de nado. En Llana y Pérez (Coordinadores) Natación y Actividades Acuáticas, Ed. Marfil. - Llana, S. y Pérez, P. (2008) Biomecánica de la Natación. En Izquierdo (Coordinador) Biomecánica y Bases Neuromusculares de la Actividad Física y el Deporte. Ed. Panamericana. - Llana, S.; Pérez, P.; Aparicio, I. (2011). Historia de la natación I: desde la Prehistoria hasta la Edad Media. Citius, Altius, Fotius. 4 (2): 51-85. - Llana, S.; Pérez, P.; del Valle, A.; Sala, P. (2012). Historia de la natación II: desde el Renacimiento hasta la aparición y consolidación de las actuales técnicas de nado. Citius, Altius, Fotius. 5 (1): 8-43. - Llana, S.; Palomino, A.; Cortés, S.; Usar, M. (2001) Biomecánica de los saltos de trampolín y plataforma. Comunicaciones Técnicas. 4, 56-63. - Navarro, F. (1979) Pedagogía de la natación. Ed. Miñón.
- - Navarro, F. (1990) Hacia el dominio de la natación. Ed. Gymnos. - Navarro, F.; Arellano, R.; Carnero, C.; Gozalvez, M. (1990). Natación. Comité Olímpico Español. - Navarro, F., Ureña, G. D., & Vegas, M. J. G. (2012). Cómo nadar bien. Editec@ red. - Llana S y Pérez P (2017) Fundamentos físicos y biológicos del desempeño humano en el medio acuático. En Gosálvez, Juárez y Navarro (coordinadores) Natación+. Ed. Real Federación Española de Natación. - Llana S y Pérez P (2017) Evolución histórica de la técnica de nado de los cuatro estilos de competición. En Gosálvez, Juárez y Navarro (coordinadores) Natación+. Ed. Real Federación Española de Natación. - Llana S, Richart V y Hervás E (2017) Enseñanza de las técnicas de la natación deportiva. En Gosálvez, Juárez y Navarro (coordinadores) Natación+. Ed. Real Federación Española de Natación.
- Camarero, S., Tella V. (1996). Aprendizaje deportivo: Enseñanza de la natación. En JA Moreno, PL Rodríguez (eds). Aprendizaje deportivo. Universidad de Murcia - Costill, D.L., Maglischo, E.W., Richardson, A.B. (1992) Swimming. Ed. Blackwell Scientific Publications. - Counsilman, J.E. y Counsilman, B.E. (1994). The new science of swimming. Ed. Prentice-Hall. - Llana, S. (2002) Resistencia hidrodinámica en natación. RendimientoDeportivo.com, nº 2. - Llana, S. y Pérez, P. (2014) Biomecánica de la Natación y otras actividades acuáticas. En Pérez y Llana (Eds.) Biomecánica Basica: Aplicada a las ciencias de la actividad física y el deporte. Paidotribo - Maglischo, E.W. (2003). Swimming fastest. Ed. Human Kinetics. - Miller, D (1975) Biomechanics of Swimming. En Willmore y Keogh (Eds.) Exercise and Sport Sciences Reviews. New York: Academic Press. - Takagi y Wilson (2000) Hydrodynamics makes a splash. Physics World. September 2000.