

**COURSE DATA****Data Subject**

Code	33231
Name	Specific applications for swimming training
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	4	First term
1331 - Degree in Physical Activity and Sport Sciences (Ontinyent)	Faculty of Physical Education and Sport Sciences	4	First term

Subject-matter

Degree	Subject-matter	Character
1312 - Degree in Physical Activity and Sport Sciences	29 - Applications for swimming training	Optional
1331 - Degree in Physical Activity and Sport Sciences (Ontinyent)	29 - Aplicación específica al entrenamiento en Natación	Optional

Coordination

Name	Department
CHULVI MEDRANO, IVAN	122 - Physical and Sports Education
ENCARNACION MARTINEZ, ALBERTO	122 - Physical and Sports Education
LLANA BELLOCH, SALVADOR	122 - Physical and Sports Education

SUMMARY

Swimming as a sport emerged in the late nineteenth century. Since then, much he has changed his training, both technically and in water and dry. In this matter, the / as alumni / ae will expose the most accepted by the international community regarding the different alternatives for training aimed at skills competition.



PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

To be able to take the course, students must have a basic knowledge of the technical execution model of the four styles of competition, as well as their starts and turns

Relationship with other subjects in the same degree course:

- It is desirable to have passed Swimming (third year).

OUTCOMES

1312 - Degree in Physical Activity and Sport Sciences

- Know and understand the fundamentals of physical fitness for physical activity and sport.
- 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.
- Plan, implement and evaluate physical activity and sports programmes targeted at special populations.
- Apply information and communication technologies (ICTs) in the field of physical activity and sport sciences.
- Know and understand the fundamentals of sports training in individual sports.
- Plan, implement and evaluate training programmes in the aquatic environment.
- Apply physiological, biomechanical, behavioural and social principles to the different fields of physical activity and sport.
- Apply information and communication technologies (ICT) to the field of sports training.

LEARNING OUTCOMES

The / the student / a will be able to start in swimming at competition level, acquiring the regulatory knowledge required level (1) (2) training of technical and tactical swimming, (3) physical training in water and dry, and (4) to plan competition seasons.



DESCRIPTION OF CONTENTS

1. Specific components of swimming training

the swimming technique of the competition styles (butterfly, back, breaststroke, freestyle, individual and relay styles), their starts and turns.

2. Swimmer training systems in the water

training means and methods in the so-called light aerobic, medium aerobic, anaerobic threshold, intense aerobic, lactate tolerance, lactate potency, alactium capacity and alactium potency training zones

3. Dry swimmer training systems

means and methods of flexibility training. Means and methods of muscle strength training

4. Season design and planning

traditional planning, integrated macrocycle planning, ATR planning, reverse planning

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	30,00	100
Classroom practices	30,00	100
Study and independent work	54,00	0
Preparation of evaluation activities	14,00	0
TOTAL	128,00	

TEACHING METHODOLOGY

1- Group learning with the teacher

- Theoretical classes (single group): will be held in classrooms of the FCAFD. They shall establish the theoretical framework for the content set out in paragraph 6.
- Practical classes (2 groups): they will take place in the swimming pool. In them, students will experience in a practical way the contents taught in the classroom and, progressively, they will have to reach the required level of execution.



2- Individual volunteer work

The aim of this course is for students to deepen their knowledge of a specific aspect of the subject. In order to do this, they must know how to use databases to find the information and then structure and integrate it into a document that they must present in class as a communication to the congress.

3- The tutoring

The tutorials will be carried out individually or in groups, either using the student's office hours, the school timetable or through the virtual classroom.

EVALUATION

Ordinary session (January).

The final grade for the course depends on the following topics:

SECTION 1: theoretical test.

A test of 40 multiple choice questions to be held on the date and time marked for the final exam of the subject in Centre Board. It will be possible to include some open-answer questions. The value of these questions will be reflected in the exam template and will be indicated well in advance to the students by the teacher. The multiple-choice questions will present 4 possible options, and only one of them will be true. The rating is as follows:

- Each hit will 0.25 points ($10/40 = 0.25$).
- Each error subtract one-third of what a success rate, ie, $0.25 / 3 = 0.083$ points.

It is **binding exceed 5** (out of 10) to pass the course.

Will mean **up to 8 points** in the final mark.

SECTION 2: voluntary activities.

2.1: practical test.

It will consist of test swim 200m individual medley (you can always make individual adaptations and when there is a medical justification told to do so), with the evaluation criteria include:

1. start, swim and turn in a regulated manner and according to the techniques taught in class,
2. the swimming rhythm must be "stable", as will be explained in class.
3. the mark will depend on the time obtained: 10 in the men's category will be a time of 2:40:00 or less and in the women's category 3:05:00 or less. From these marks onwards, every 15 seconds will be one point less.



Will mean **up to 0,75 points** in the final grade.

Students will only be able to take the practical part (2.1.) voluntarily in the first call (January). Those students who do NOT pass the theoretical part will keep the result of the practical part for the second exam of the same academic year.

2.2. Work.

Those students who wish may perform **volunteer work**. They must meet the following requirements:

- Agree the issue with the teacher: deadline two weeks after the start of classes.
- Delivery justified index: deadline two weeks from the consensus of the subject.
- Delivery of the work: deadline first week of November.

The rating is as follows:

Calificación del trabajo	Nota
Excelente	0,75 puntos
Muy bueno	0,50 puntos
Bueno	0,25 punto
Regular	0 puntos
Malo	0 puntos



2.3. Attendance to Swimming Congresses.

Prior to attending the conference, the student / teacher should present the program of the congress. Depending on the workload, theme and speakers, you can be **up to 0,25 points** in the final grade for the course.

After attending the conference, the student must present a certificate of attendance and a document prepared by him which indicate and justify what has brought.

SECTION 3: attendance and participation in class.

Active participation in the development of classes may be **up to 0.5 points** in the final grade. This score will depend on the discretion of the professor.

FINAL GRADE

The final grade is obtained from the sum of the partial notes of each of those sections, as long as the theoretical exam is passed.

Extraordinary convocation (June).

The evaluation criteria are similar to those of the first call, therefore, the grade of the different sections is kept, which will have the same percentage value than in the first call (this will be valid within the the same academic year, i.e. no partial grades are kept from a course for the next academic year).

On the date and time approved by the Centre Board, a test will be carried out. similar to that indicated in section 1.

From section 2 (voluntary activities), documents justifying attendance at congresses may be presented (section 2.3.). The practical test (section 2.1.) may not be taken.

REFERENCES

Basic

- Brown, Lee E. Entrenamiento de la fuerza / National Strength and Conditioning Association (NSCA); Lee E. Brown, editor. Madrid: Médica Panamericana, 2008.
- Chollet, D. (2003). Natación deportiva. Ed. INDE.
- Coburn, Jared W., and Moh H. Malek. Manual NSCA: fundamentos del entrenamiento personal / National Strength and Conditioning Association; Jared W. Coburn, Moh H. Malek, coordinadores. 1a reimpr. 2a ed. Badalona: Paidotribo, 2014.
- Colwin, C. (1993). Swimming into the 21st Century. Human Kinetics.
- Counsilman, J.E. & Counsilman, B.E. (1994). The new science of swimming. Ed. Prentice-Hall.



- Guzmán, R.J. (1998). Swimming drills for every stroke. Ed. Human Kinetics.
- Häkkinen, Keijo, and William J. Kraemer. Strength Training for Sport / Edited by William J. Kraemer, Keijo Häkkinen. Oxford [etc: Blackwell Science, 2002.
- Llana, S. (2002). Resistencia hidrodinámica en natación. RendimientoDeportivo.com, nº 2.
- Llana, S. y Pérez (2008) Biomecánica de la natación. En Izquierdo (Ed.) Biomecánica y Bases Neuromusculares de la Actividad Física y el Deporte. Editorial Médica Panamericana.
- Llana, S. y Pérez, P. (2007) Natación y Actividades Acuáticas. Editorial Marfil.
- Llana, S.; Palomino, A.; Cortés, S.; Usar, M. (2001). Biomecánica de los saltos de trampolín y plataforma. Comunicaciones Técnicas. 4, 56-63.
- Llana, S y Brizuela, G (1997) Factores biológicos que determinan el rendimiento en la natación de competición. En, Camarero y Tella (Eds.) Natación: aplicaciones teóricas y prácticas. Promolibro.
- Llana, S., Pérez, P. y Aparicio, I (2011) Historia de la Natación I: desde la Prehistoria a la Edad Media. Citius, Altius, Fortius, vol 4, nº 2, pp. 51-84.
- Llana, S., Pérez, P., del Valle, A. y Sala, P. (2012) Historia de la Natación II: desde el Renacimiento hasta la aparición y consolidación de los actuales estilos de competición. Citius, Altius, Fortius, vol.5, nº1, pp. 9-44.
- Llana, S. y Pérez, P. (2012) Biomecánica de la Natación y otras actividades acuáticas. En, Pérez y Llana (Eds.) Biomecánica Básica. Ed. Paidotribo.
- 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.

Additional

- Maglischo, E.W. (2003). Swimming fastest. Ed. Human Kinetics.
- Miller, D (1975). Biomechanics of Swimming. En Willmore & Keogh (Eds.) Exercise and Sport Sciences Reviews. New York : Academic Press.
- Miyashita, M. (1997). The Bio-Physics of Swimming-Three Decades of Research. University of Tokio.
- Navarro, F.; Arellano, R.; Carnero, C.; Gozávez, M. (1990). Natación. Comité Olímpico Español.
- Wilkie, D. & Juba, K. (1990). The handbook of swimming. Ed. Pelham books.

Podcast.

Antonio Piepoli:

https://www.ivoox.com/ede5-de-nadador-amateur-a-triatleta-profesional-con-audios-mp3_rf_29392606_1.html

Amantes de la natación_William Andrés Huérfano Zea:

<https://open.spotify.com/show/26NxGJi37me2PQNJBdHXYN>



Sumergidos en la natación_Tomás Binosó:

<https://podcasts.apple.com/ec/podcast/sumergidos-en-la-nataci%C3%B3n/id1517836159>

Natación y Triatlón_Jorge Ortega:

<https://sportcoach.es/podcast-natacion-y-triatlon-con-jorge-ortega/>

