1. BASIC DATA

Subject	Cycling I
Degree	Degree in Physical Activity and Sports Sciences
School/Faculty	Medicine, Health and Sports
Course	Second
ECTS	4 ECTS
Character	Elective
Languages	Spanish and English
Mode	In person
Semester	S1/S2
Academic year	2025/2026
Coordinating teacher	David Barranco Gil

2. PRESENTATION

Cycling I is a compulsory subject taught in the second year of the Bachelor's Degree in Physical Activity and Sports Sciences. It is a 3-credit ECTS course that aims to provide students with tools for participating in cycling-related activities and events. This course will deepen their knowledge of the different cycling disciplines, regulations, competitions, and regulatory bodies of this sport. In addition, students will learn to conduct practical sessions tailored to different ages and levels of biological development, focusing on improving technique, cycling skills, handling different types of bicycles, proper bike adjustment, and mountain bike route guidance, for example.

The course is developed in such a way that the theoretical content is reinforced with related practical exercises, in the cycling workshop, at the gym or outdoors using indoor cycling , MTB and road bikes.

In addition , there are classroom practices , debates, video analysis, and other activities that reinforce learning. The goal is for future graduates to acquire a range of skills, knowledge, and competencies that will enable them to organize, develop, and supervise any cycling-related activity with the utmost rigor.

3. COMPETENCIES AND LEARNING OUTCOMES

Basic skills :

- CB2: That students know how to apply their knowledge to their work or vocation a professional manner and possess the skills that are usually demonstrated through the development and defense of arguments and the resolution of problems within their area of study.
- CB3: Students should have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include a

  reflection on relevant topics of a social, scientific or ethical nature.
- CB4: Students can transmit information, ideas, problems and solutions to both specialized and non-specialized audiences.

Transversal skills:

- CT13: Problem solving: Ability to find a solution to a confusing issue or a complicated situation without a predefined solution, which makes it difficult to achieve a goal.
- CT15: Responsibility: The ability to fulfill commitments made to oneself and others when performing a task and trying to achieve a set of objectives within the learning process. The capacity existing in every individual to recognize and accept the consequences of an act performed freely.
- CT17: Teamwork: Ability to actively integrate and collaborate with other people, areas and/or organizations to achieve common goals.

Specific skills:

- CE1: Ability to design, develop and evaluate teaching-learning processes related to physical activity and sport, taking into account the individual and contextual characteristics of people and assuming the necessary educational, technical, and curricular principles.
- CE2: Ability to transmit attitudes and values in professional practice in all areas of physical activity and sport, participating in the improvement of society
- CE5: Ability to identify inappropriate practices that pose a risk to health, in order to avoid and correct them in different types of population.
- CE6: Ability to assess the level of physical fitness and motor skills by prescribing and programming health-oriented physical exercises at different ages.
- CE7: Ability to promote and evaluate sustainable and independent habits of practicing physical activity and sports oriented towards health.

Learning outcomes:

- RA1: Design of a teaching-learning process related to physical activity and sport, taking into account the individual and contextual characteristics of people and assuming the necessary educational, technical and curricular principles.
- RA2: Design and development of teaching sessions in progression of difficulty with the objectives, content and work methodology for teaching and learning the basic skills and abilities of cycling.
- RA3: Project on the didactic foundations in the teaching and learning of cycling.
- RA4: Carrying out the planning, programming, implementation, control and evaluation of the teaching and learning processes at different stages.
- RA5: Diagnostic report on the level of physical fitness and motor skills to prescribe physical, motor, technical, and tactical exercises geared toward health and to promote and evaluate lasting and autonomous habits of practicing physical and sports activities through cycling and bicycle use.
- RA6: Student behaviors and attitudes in training activities and practical sessions aligned with reference codes of good practice.

- RA7: Understanding of concepts related to the principles of the game, technical and tactical resources, regulations, and the physiological, biomechanical, psychological, and social aspects of the different fields of physical activity, sport, and recreation at this stage.

The table below shows the relationship between the skills developed in the subject and the learning outcomes pursued:

Competencies	Learning outcomes
CB2, CB4, CT1, CT15, CE1	RA1: Design of a teaching-learning process related to physical activity and sport, taking into account the individual and contextual characteristics of people and assuming the necessary educational, technical and curricular principles.
	RA4: Carrying out the planning, programming, implementation, control and evaluation of the teaching and learning processes at different stages.
CB3, CT13, CE2, CE5	RA2: Design and development of teaching sessions in progression of difficulty with the objectives, content and work methodology for teaching and learning the basic skills and abilities of cycling.
	RA5: Diagnostic report on the level of physical fitness and motor skills to prescribe physical, motor, technical, and tactical exercises geared toward health and to promote and evaluate lasting and autonomous habits of practicing physical and sports activities through cycling and bicycle use.
CB2, CE6, CE7, CT17	RA6: Student behaviors and attitudes in training activities and practical sessions aligned with reference codes of good practice.
	RA7: Understanding of concepts related to the principles of the game, technical and tactical resources, regulations, and the physiological, biomechanical, psychological, and social aspects of the different fields of physical activity, sport, and recreation at this stage.
	RA3: Project on the didactic foundations in the teaching and learning of cycling.

4. WITH CONTENTS

Topic 1 - History of the bicycle.
Topic 2 - Basic cycling technique.
Topic 3 - The bicycle and its components, basic mechanics.
Topic 4 - Specific cyclist clothing.

Topic 5 – Cycling Modalities . Cycle Orientation.

5. TEACHING-LEARNING METHODOLOGIES

The following are the types of teaching-learning methodologies that will be applied:

- Problem-based learning.
- Cooperative learning.

6. TRAINING ACTIVITIES

The following identifies the types of training activities that will be carried out and the student's time commitment for each of them:

In-person modality:

Training activity	Number of hours
Masterclasses	12 h
Design and direction of practical sessions	36 h
Activities in workshops and/or laboratories	12 h
Self-employment	3 p.m.
Formative assessment	5 p.m.
Tutoring	4h
Asynchronous masterclasses	4h
TOTAL	**100h**

7. ASSESSMENT

The evaluation systems and their weighting in the total grade for the subject are listed below :

In-person modality:

Evaluation system	Weight
In-person knowledge tests	60-70%
Participation in classroom activities	30-40%

On the Virtual Campus, when you access the course, you can view the detailed assessment activities you must complete, as well as the due dates and assessment procedures for each one.

7.1. Ordinary call

To pass the course in the regular examination session, it is necessary to obtain a final grade equal to or greater than 5.0, which will result from the sum of the grades obtained in the different evaluable activities (practical exercises, submission of reports, and objective knowledge test).
To qualify for the average of all parts of the subject in the ordinary session, the grade must be equal to or greater than 5.0, using the following weighted average system:

- Objective Test (30% of the total). To qualify, you must have a minimum grade of 5;
- Technical components. (25% of the total). To qualify, you must have a minimum grade of 3;
- Mechanical test (15% of the total). To qualify, a minimum grade of 3 is required;
- Fitness test. (25% of the total). To qualify, you must have a minimum score of 3;
- Class aptitude (5% of the total).

Attendance is mandatory for 80% of the total course; failure to comply with this requirement exempts students from being assessed through regular examinations.

7.2. Extraordinary call

To pass the course in the extraordinary session, students must obtain a grade greater than or equal to 5.0 out of 10.0 in their final grade. Any assignments not passed in the regular session must be submitted after receiving the corresponding corrections from the instructor, or those that were not submitted.
To qualify for the average of all parts of the subject in the ordinary session, the grade must be equal to or greater than 5.0, using the following weighted average system:

- Objective Test (30% of the total). To qualify, you must have a minimum grade of 5;
- Technical components. (25% of the total). To qualify, you must have a minimum grade of 3;
- Mechanical test (15% of the total). To qualify, a minimum grade of 3 is required;
- Fitness test. (25% of the total). To qualify, you must have a minimum score of 3;
- Class aptitude (5% of the total).

8. SCHEDULE

This section indicates the schedule with dates for submitting evaluable activities for the subject:

Evaluable activities	Date

Activity 1: Learn about the history and evolution of the bicycle and the sport of cycling.	Week 15
Activity 2: Handling and riding in different cycling skills.	Week 4, 5, 6, 7, 8, 9 and 10
Activity 3: You will be able to assemble and disassemble both wheels and replace the inner tubes, break a chain and join it together.	Week 11
Activity 4: It will consist of being able to travel a certain distance in the shortest time possible.	Week 15
Activity 5: Select the correct answer from the options provided regarding the knowledge developed in the subject.	Week 15
Activity 6: Regularly attend class and behave appropriately and in accordance with what is expected of a student of his age and academic level.	Week 1-15

This schedule may be subject to changes due to logistical reasons. Students will be notified of any changes in a timely manner.

9. LITERATURE

Recommended bibliography is provided below:

- Mayor Y. Cycling and Performance: A Guide to Optimizing Training and Improving Your Cycling Skills. Madrid: Tutor; 2011
- Allen H. Cycling: Advanced Training. Madrid: Tutor; 2013
- Allen H; Coggan A. Training and racing with a power meter. Barcelona: Paidotribo; 2013.
- Barbado C. Indoor Cycling Manual. Barcelona: Paidotribo; 2005.
- Barbado C, Barranco D. Advanced Indoor Cycling Manual. Barcelona: Paidotribo; 2007.
- Celdrán R, Sola J, Arguedas JM, Barranco B. Power your pedal strokes 2. Analyze your power data. Plan Sports Advisors, SL; 2022.
- Zabala M, Cheung S. The Science of Cycling: The Ultimate Link Between Knowledge and Performance. Madrid: Ed Tutor; 2018
- Zani Z. Pedaling Well. Madrid: Tutor; 2010.

10. EDUCATIONAL GUIDANCE AND DIVERSITY UNIT

From the Educational Guidance and Diversity Unit (ODI), we offer support to our students throughout their university life to help them achieve their academic goals. Other pillars of our work include the inclusion of students with specific educational support needs, universal accessibility across the university's various campuses, and equal opportunities.

From this Unit, students are offered:

1. Support and follow-up through personalized counseling and plans for students who need to improve their academic performance.

2. In terms of attention to diversity, non-significant curricular adjustments are made, that is, at the level of methodology and evaluation, for students with specific educational support needs, thereby pursuing equal opportunities for all students.
3. We offer students a variety of extracurricular training resources to develop diverse skills that will enrich their personal and professional development.
4. Career guidance through the provision of tools and advice to students with vocational questions or who believe they have made the wrong choice in their degree.

Students who need educational support can write to us at: orientacioneducativa@universidadeuropea.es

11. SATISFACTION SURVEYS

Your opinion matters!

The European University encourages you to participate in satisfaction surveys to identify strengths and areas for improvement regarding the faculty, the degree, and the teaching-learning process.

Surveys will be available in the survey space on your virtual campus or via email.

Your feedback is essential to improve the quality of the degree.

Thank you very much for your participation.