



**COURSE DATA**

**DATA SUBJECT**

**Code:** 33215  
**Name:** Systematics of movement  
**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	1	First quarter, Second quarter
1331 - Degree in Physical Activity and Sport Sciences (Ont)	Facultat de Ciències de l'Activitat Física i Esports	1	First quarter

**SUBJECT-MATTER**

Degree	Subject-matter	Character
1312 - Degree in Physical Activity and Sport Sciences	Systematics of movement	COMPULSORY
1331 - Degree in Physical Activity and Sport Sciences (Ont)	Sistemática del movimiento	COMPULSORY

**COORDINATION**

MARTIN RIVERA FERNANDO

**SUMMARY**

Systematics of the Movement is a subject of basic formation of the curriculum of Degree in Sciences of Physical Activity and Sport, based on the Royal Decrees (1125/2003 and 1397/2007).

This subject constitutes a fundamental part of the general knowledge of the future. Graduated in Physical Activity and Sports Sciences, tries to know and study in a unitary and orderly way, all those aspects that base the basic physical-sport activity of the human being.

It is a compulsory subject that is taught in the first year during a semester, whose development consists of giving answers to the questions of what is it? What is it for? And how does it apply? each one of the basic motor contents related to physical activity and sports. Among them, he tries to: study, know and analyze physical exercise as an expression of body movement; to experiment, develop and evaluate all the motor skills (coordinative and conditional) and to know how to propose, compose and direct sessions of physical exercises in different areas of application.



## 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 deal this matter there is needed either any type of special knowledge nor prerequisite.

## COMPETENCES / LEARNING OUTCOMES

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

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

Be able to differentiate basic conditional capacities from coordination capacities.

Conocer, comprender y valorar la dificultad de ejecución de las diferentes acciones motrices.

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.

Know, create and put together physical exercises of different motor capacities.

Know and develop different types of motor skills assessments.

Know and understand the different types of physical exercises and their effects.

Know and understand the effects of the practice of physical exercise on the structure and function of the human body.

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

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

Study, analyse and adequately develop the different motor manifestations.

## DESCRIPTION OF CONTENTS

### 1. Human Movement: General Concepts and Basic Movement Needs



2. Study of human movement: joint physiology.
3. Study of movement 1: Posture
4. Study of movement 2: The continuum.
5. Evaluation of movement
6. Classification and systematisation of exercises and application to training.
7. Conditional capacities
8. Incorporation of the exercises to the training session.

## WORKLOAD

### PRESENCIAL ACTIVITIES

Activity	Hours
Theory	15,00
Classroom practices	45,00
<b>Total hours</b>	<b>60,00</b>

### NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	40,00
Independent study and work	20,00
Preparation of lessons	10,00
Preparation for assessment activities	10,00
Resolution of case studies	10,00



## TEACHING METHODOLOGY

**Classroom practice (45 hours)** Practical classes of theoretical-practical content taught by the teaching staff that include introductory sessions on the different contents of the Systematics of Movement, as well as presentations and application of practical sessions, developed individually and in groups, by the students. Different participative techniques and group dynamics will be applied, simulation of teaching practices, as well as the use of didactic materials and information and communication technologies.

**Theory classes (15 hours)** Theoretical-practical classes which include introductory sessions on the different subjects and the development of part of the contents taught by the teaching staff and theoretical-practical sessions, group work, where students will debate and present the work carried out, constructing, developing and complementing the different subjects. The analysis and critical reflection of documents and readings related to the different topics of the subject will be taken into account and encouraged. For the development of this section, different group dynamics techniques and curricular materials will be used.

**Rest of the timetable (90 hours)** Students will use the non-classroom timetable to prepare the work proposed in the subject. The work dynamic will be carried out through the formulation of relevant questions, information search, analysis, elaboration and subsequent communication. Likewise, during this non-face-to-face time, students will attend tutorials called by the teaching staff to monitor their learning in a more personalised way.

## EVALUATION

The evaluation system will be continuous and in order to pass the course, students will have to carry out the following activities:

**Test 1 (40% of the mark):** Group work on the content of the classes. The work will be defended by the students in front of their own classmates. There will be 4 dates, throughout the term, for partial deliveries of the work and this part of the evaluation will be considered passed when the mark obtained is 5/10 absolute mark or 2/4, weighted mark.

**Test 2 (60% of the mark):** Examination that will deal with the theoretical/practical contents taught during the classes. This part of the evaluation is considered passed when the mark obtained is a 5/10 absolute mark or a 3/6, weighted mark.

The final mark will be the sum of the marks of both tests (weighted in percentage). Each test of the assessment must be passed in order for the marks to be added together.

The final mark will be the result of the two parts of the evaluation, and each part must be passed independently in order to pass the course. In the event of failing any part, this mark will not be saved for future courses.

In order to be able to take the continuous assessment, students must attend at least 80% of the classes. Those students who do not attend 80% of the classes must take the final evaluation, which will consist of a theoretical-practical exam of all the contents of the subject, having to pass all the parts into which the



exam can be divided.

## REFERENCES

- Arnold, P. (2000) Educación física, movimiento y currículum (3ª reimpression). Madrid: Morata - Anderson, David. (2014). Motor Learning and Control: Concepts and Applications, 10th edition McGraw-Hill Higher Education -A.Blazevich, A. Sports Biomechanics: The basics optimizing human performance. Bloomsbury. Bompá, T. Carrera, M. (2005). Periodization Training for Sports - 2nd Edition Human Kinetics. - Boyle, Michael. (2016). New Functional Training for Sports-2nd Edition Human Kinetics. - Comerford, M. Mottram, S. (2012). Kinetic Control. The Management of Uncotrolled Movement. Elsevier. - Devís, J. i Peiró, C. (2002) Nuevas perspectivas curriculares en la educación física (2ª edición). Barcelona: Inde. - Dufour, M. Pillu, M. (2018). Biomecánica funcional: miembros, cabeza, tronco. 2nd Edition Elsevier. - Fernández del Olmo, M.A. (2012). Neurofisiología aplicada a la actividad física. Ed. Síntesis. - González-Badillo, J.J. Ribas-Serna, J.(2019). Fuerza, velocidad y rendimiento físico y deportivo. Ed. Librerías deportivas Esteban Sanz. - Hargrove, Todd. (2014) A Guide to Better Movement: The Science and Practice of Moving with More Skill and Less Pain. Better Movement. - Heredia, J. Peña, G. (2019). El entrenamiento de la fuerza para la mejora de la condición física y la salud. Editorial Círculo Rojo.
- Hoffman, J.R. (editor) (2011). NSCA's Guide to program design, National Strength and Conditioning Association. - Iannucci, Cassandra; Gibson, Brent; May, Sharon; Twigge, Kayla (editors) (2011). The Fundamental Movement Skills: Educator's Guide to Teaching Fundamental Movement Skills. Physical & Health Education Canada. - Joyce, D. Lewindon D. (2014). High-performance training for sports. Human Kinetics. - Kapandji, A. (1970). Cuadernos de Fisiología Articular, Tomo 1: miembro superior. (6th edition). Ed. Panamericana. - Kapandji, A. (1970). Cuadernos de Fisiología Articular, Tomo 2: miembro inferior. (6th edition). Ed. Panamericana. - Kapandji, A. (1970). Cuadernos de Fisiología Articular, Tomo 3: tronco y raquis. (6th edition). Ed. Panamericana. - Mark L, Zatsiorsky V. (2016). Biomechanics and motor control, defining central concepts. Elsevier. - Myers, T. (2009). Vías Anatómicas. Meridianos miofasciales para terapeutas manuales y del movimiento. 2nd edition. Elsevier/Masson. - McGuigan, M. (2017). Monitoring Training and Performance in Athletes. Human Kinetics. - National Strength and Conditioning Association (2011). NSCA's Guide to Tests and Assessments (Science of Strength and Conditioning). Human Kinetics. - Rhodri, S. Oliver, J (editors) (2014). Strength and Conditioning for young athletes: Science and Application. Routledge. - Shumway-Cook, A. Woollacott, M. (2012). Motor Control. 4th edition Wolters Kluwer, Lippincott Williams & Wilkins.