

# Teaching guide

## IDENTIFICATION DETAILS

Degree:	Medicine		
Field of Knowledge:	Health Science		
Faculty/School:	Health Sciences		
Course:	PHYSIOLOGY AND PATHOLOGY IN SPORTS AND PHYSICAL ACTIVITY		
Type:	Optional	ECTS credits:	3
Year:	5	Code:	2758
Teaching period:	Tenth semester		
Area:	Integrated Medical Surgical Pathology		
Module:	Human Clinical Training		
Teaching type:	Classroom-based		
Language:	Spanish		
Total number of student study hours:	75		

## SUBJECT DESCRIPTION

The course on the Physiology and Pathology of Sport and Physical Activity provides basic knowledge of the physiology of effort, functional testing, prescription of exercise, nutrition in sport, ergogenic aids, doping and sports injuries. This knowledge will allow students to understand the immediate changes and adaptations of the body caused by physical exercise, and to use them as a therapeutic tool. It will also allow students to understand the diagnostic and therapeutic management of professional sportspeople.

## SKILLS

### Basic Skills

Students must have demonstrated knowledge and understanding in an area of study that is founded on general secondary education. Moreover, the area of study is typically at a level that includes certain aspects implying knowledge at the forefront of its field of study, albeit supported by advanced textbooks

Students must be able to apply their knowledge to their work or vocation in a professional manner and possess skills that can typically be demonstrated by coming up with and sustaining arguments and solving problems within their field of study

Students must have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgments that include reflections on pertinent social, scientific or ethical issues

Students must be able to convey information, ideas, problems and solutions to both an expert and non-expert audience

Students must have developed the learning skills needed to undertake further study with a high degree of independence

## General Skills

To recognise the essential elements of the medical profession, including ethical principles, legal responsibilities and professional practice focussed on the patient. To acquire the values of professionalism:

- a. Altruism: looking for the best in patients.
- b. Responsibility: complying with the implicit agreement with the community.
- c. Excellence as a continuous search for knowledge.
- d. Obligation as a free commitment to serve.
- e. Honour and integrity: complying with personal and professional codes and undertaking not to breach them.
- f. Serving others.

To obtain and develop a medical record containing all relevant information.

To perform a physical examination and conduct a mental assessment.

To recognise and address situations that place life in immediate risk and others requiring immediate attention.

To establish the diagnosis, prognosis and treatment, applying principles based on the best possible information and clinical safety conditions.

To understand the importance of these principles for the benefit of patients, society and the profession, particularly focussing on professional secrecy.

To acquire suitable clinical experience in hospital institutions, health centres or other healthcare institutions, under supervision, as well as basic knowledge on clinical management centred around the patient, and to suitably use tests, drugs and other resources afforded by the healthcare system.

To prepare medical records and other medical registers in a way that is understandable to others.

To communicate effectively and clearly, both orally and in writing, with patients, families, the media and other professionals.

To establish good interpersonal communication that makes it possible to address patients, family members, media and other professionals with efficiency and empathy.

To recognise determining factors in the population's health, such as genetics, gender and lifestyle, as well as demographic, environmental, social, economic, psychological and cultural factors.

To assume one's role in actions aimed at preventing and protecting from illnesses, injuries or accidents, as well as those aimed at maintaining and promoting health - both individually and at a community-based level.

To acknowledge one's role in multiprofessional teams, taking on leadership when pertinent, be it when providing healthcare or in interventions aimed at promoting health.

To know how to apply the principle of social justice to professional practice and understand the ethical implications of health in a global context of transformation.

To be familiar with, critically evaluate and know how to use sources of clinical and biomedical information to obtain, organise, interpret and communicate scientific and health-related information.

To be able to use information and communication technologies in clinical, therapeutic, preventive and research activities.

To keep and use the patient information records for subsequent analysis, maintaining the information confidential.

To have a critical, creative viewpoint in professional activity with constructive scepticism focussed on research.

To understand the importance and limitations of scientific thought in the study, prevention and management of illness.

To be able to formulate hypotheses and gather information and critically assess it in order to solve problems using scientific methodology.

To acquire basic training for conducting research.

Students must have demonstrated a command of information and communication technologies (ICTs), using tools and processes that need to be applied to scientific methodology or have a practical medical application.

To engage in professional practice with regard to the independence, beliefs and culture of the patient.

Students must be able to develop a profile conducive to the practice of medicine through activities specifically designed in all subjects of the syllabus.

To recognise one's limitations and the need to maintain and update professional skills, with particular emphasis on independent acquisition of new knowledge and techniques and a motivation to achieve quality.

To engage in professional practice with regard to other health professionals, gaining teamwork skills.

### Specific skills

Ability to integrate theoretical and practical knowledge.

To know how to write records, reports, instructions and other registers in an understandable manner for patients, families and other professionals.

To recognise, diagnose and provide guidance in handling the main cardiocirculatory disorders: cardiac arrhythmias, acute coronary syndrome, heart failure, shock, valvular heart disease, ischemic syndromes and venous disorders, hypertension and other relevant cardiovascular pathologies.

To recognise, diagnose and provide guidance in handling the main disorders of the musculoskeletal system: inflammatory and degenerative processes; injuries and fractures; tumours; and other relevant musculoskeletal disorders.

To recognise, diagnose and provide guidance in handling the main disorders of the respiratory system: respiratory failure, COPD, respiratory infections and tumours. Other relevant disorders of the respiratory system.

To be familiar with the pathophysiological mechanisms of the various systems.

To recognise, diagnose and provide guidance in handling life-threatening situations.

To know how to perform a complete anamnesis, centred on the patient and focussed on various pathologies, interpreting the meaning of it.

To be able to conduct a physical examination of systems, as well as a psychopathological examination, interpreting their meaning.

To be able to perform basic and advanced life support procedures.

To be familiar with the different career options upon graduation: conventional or majority options by training as a specialist or other less common choices such as research, military healthcare, management, etc.

### DISTRIBUTION OF WORK TIME

CLASSROOM-BASED ACTIVITY	INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY
33 hours	42 hours