UCLouvain

Biomechanics applied to physiotherapy

3.00 credits

2023

Q1

30.0 h

Teacher(s)	Detrembleur Christine ;				
Language :	French				
Place of the course	Louvain-la-Neuve				
Prerequisites	The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.				
Main themes	The main themes to achieve these objectives are : - biomechanics of the muscle, - electromyography and kinesiology, - strength of biological material like bones, tendons and ligaments				
Learning outcomes	At the end of this learning unit, the student is able to : The aim of this course is to apply the principles of biomechanics in physiotherapy. Using these principles, the student will be able to identify the mechanical causes of several pathologies of the locomotory system, et de justify therapeutic design from a biomechanical point of view.				
Evaluation methods	CERTIFYING CONTINUOUS ASSESSMENT/ NO IN-SESSION EXAM Attendance at this course is required. Course holders may, under Article 72 of the General Regulations for Studies and Examinations, propose to the jury to oppose the registration of a student who has not attended the presentation of instructions and oral presentations, during the January/June or September session. The examination consists of the oral presentation of the project in groups of 5 or 6.				
Teaching methods	REVERSE CLASS - TEAMWORK Students come to the course during the month assigned to them by the secretariat between October and January. Project work in reverse class. A theoretical presentation is made by an expert at the beginning of the month in which the student is to participate in the project. The basic notions are given to him/her. Then, the students are divided into teams of 5-6 students and choose a given theme on which they will work together for 2 to 3 weeks. The project consists in carrying out bibliographical research, having a meeting with a company, meeting with patients or professionals, doing research on Adhoc websites. The students have to make a presentation of their results at the end of the month of 10-15 minutes. This presentation is their exam mark.				
Content	Biophysics is a discipline at the interface of physics and biology where physical concepts and tools for observation and modeling of physics are applied to human biological phenomena. The course is taught in a flipped classroom, each month a new topic is covered. The themes also change annually. The students are given the theoretical basis for their theme and then have to carry out a project in teams.				
Inline resources	The theory given in the first course is on Moodle, as are the presentations made by the students. The list of students who are expected to attend the course during the adhoc month is put on moodle at the beginning of the month.				
Other infos	Evaluation : Continuous Evaluation - Working in teams of 5-6 students, preparation of a project Support : Scientific articles - instructions - websites Supervision: Chairholder(s) and invited experts				
Faculty or entity in charge	FSM				

Programmes containing this learning unit (UE)						
Program title	Acronym	Credits	Prerequisite	Learning outcomes		
Bachelor in Physiotherapy and Rehabilitation	KINE1BA	3	LFSM1105 AND LFSM1109 AND LKINE1005 AND LKINE1006	۹		