UCLouvain

Ikine1023

2024

Pathologies and physical therapy of the cardio-respiratory system

7.00 credits	45.0 h + 30.0 h	Q2

Teacher(s)	Michotte Jean-Bernard ;Poncin William (coordinator) ;Reychler Gregory ;Vancraeynest David ;
Language :	French > English-friendly
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	On the basis of the descriptions of concrete clinical cases, the course will analyse in an integrated way the various aspects highlighted by these clinical situations (after to the student proposed personal readings) The semiology of the different studied pathologies will be particularly analysed as an indication of the physiotherapy techniques. The main techniques of respiratory, cardiac and vascular physiotherapy will be studied in a critical way as for their indications, application methods and results. They will also be approached in practice according to the possibilities offered by work on healthy subjects.
Learning outcomes	At the end of this learning unit, the student is able to: At the end of this teaching, the student will know the anatomopathologic, physiopathologic characteristics and the semiology of the great respiratory syndroms as well as of diseases like Chronic Obstructive Pulmonary Diseases, asthma and pneumonia. The student will understand the mechanisms and repercussions of the main cardio-vascular diseases. He will know the indications and practical methods of the physiotherapy techniques suitable for the described cardio-respiratory and vascular deficits.

Attendance at practical courses is mandatory, and attendance will be regularly monitored. In accordance **Evaluation methods** with Article 72 of the General Regulations on Studies and Examinations, course instructors may propose to the examination board to deny registration for the January or September session to any student who has at least two unexcused absences from the practical courses. The student must submit the original copies of any supporting documents, such as a medical certificate or any other document whose evidentiary value will be assessed by the chair of the examination board, to the faculty administration. The student should also present the supporting document to the instructor so that it can be scanned during the attendance check following their return. Mock tests with sample questions, reflecting the difficulty level of the exam, will be offered throughout the year. These questions will then be corrected by the instructor with the students, specifying the expected level of mastery and rigor (the grading criteria will be explained). This will help students understand the expectations and adjust their study accordingly. Volumes 1 (theory) and 2 (practice) may be evaluated either together during a written exam in French in the June (and/or September) session, which will include multiple-choice questions (MCQs) and/or open-ended questions, or separately. In the latter case, Volume 2 (practical course) will be assessed through a practical exam outside of the examination period (continuous assessment). This evaluation of the practical part will be conducted via an oral exam, including questions on the topics covered in Volume 2 of the course. It will involve practicing evaluation or treatment techniques on a partner and/or presenting clinical reasoning for a given clinical situation. The theoretical concepts related to practice may also be assessed during this practical exam. Additionally, elements of continuous assessment may be applied, for example, to ensure the assimilation of theoretical foundations before participating in practical courses or to certify the mastery of practical concepts covered throughout the year. If applicable, the grades obtained during these continuous assessments will represent a percentage ranging from 10% to 25% of the final grade. This part of the continuous assessment cannot be retaken during the June or September exam sessions. To pass this unit of study, a minimum grade of 10/20 is required. The final grade will not include decimal points: - For a grade below 10/20, the final grade will be rounded down (e.g., 9.8/20 becomes 9/20). - For a grade above 10/20, the final grade will be rounded to the nearest whole number (e.g., 13.49 becomes 13; 13.50 becomes 14). The evaluation of the theoretical part through MCQs will consist of N questions, each with only one correct answer. The minimum threshold for mastering the learning outcomes (corresponding to a score of 10/20) for this exam is determined by the following formula, which calculates the "minimum passing threshold": c = ((n+1)/2n) x 100. Where: - "c" corresponds to the "minimum passing threshold" (you must answer correctly to (c x 100)% of the N questions to obtain a score of 10/20). - "n" represents the number of options per question (e.g., n = 5 means 5 answer choices per question). This formula implies that to achieve a score of 10/20, you need to answer correctly: - 62.5% of the N questions if there are 4 options. - 60% of the N questions if there are 5 options. This threshold helps mitigate the random chance effect associated with answering all questions, including those for which the student does not know the answer, as there are no negative points. Final Grade Passing both the theoretical part (Vol. 1) and the practical part (Vol. 2) is essential to demonstrate the skills and knowledge related to this unit of study (UE). Failure in either the theoretical or practical part will result in a failing grade for the entire unit of study. If the student passes both parts (theory and practice), the final grade is the weighted average of the two parts, based on the number of questions asked. If the student receives a grade below 10/20 in either part, the final grade will be the lower grade. The part of the course in which the student achieves at least 10/20 will not need to be retaken in the second session of the current year but must be retaken if the student re-enrolls in the course. The educational unit is given in classroom sessions. Powerpoint is the main support. Clinical cases and video Teaching methods capsules will support the education. Active participation will be solicitated through connected applications. Attendance at lessons is compulsory. In the event of non-success and if the student re-registers for the course the following year, attendance remains compulsory. Before reviewing the main pathological syndromes involving the respiratory system, through respiratory syndromes Content with a particular emphasis on clinical semiology, basics of respiratory mechanics will be detailed. In particular, the role and dysfunctions of respiratory muscles as a key element of the respiratory system will be discussed. Functional respiratory evaluation will be addressed through basic spirometry and patient's clinical exam. The purpose of respiratory physiotherapy will then be developed and the main techniques will be described and critically analysed. The same approach is developed in relation to cardiac function. Moodle platform Inline resources La pneumologie fondée sur les preuves, 5e ed., SPLF (Editions Margaux Orange) Bibliography Respiratory Physiology: The Essentials, 10e ed. J.B. West and A.M. Luks (Editions Wolters Kluwer) Pulmonary pathophysiology: The Essentials, 8e ed., J.B. West (Editions Wolters Kluwer) Kinésithérapie respiratoire, 3e ed. (2014), G. Reychler, J. Roeseler, P. Delguste (Elsevier Masson)

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Other infos	Support: Syllabus and book (s) Framing: Holder (s)
Faculty or entity in charge	FSM

Programmes containing this learning unit (UE)							
Program title	Acronym	Credits	Prerequisite	Learning outcomes			
Master [120] in Motor Skills: Physical Education	EDPH2M	7		•			
Bachelor in Physiotherapy and Rehabilitation	KINE1BA	7	LFSM1102 AND LFSM1003 AND LKINE1006	Q			