

5.00 credits


45.0 h + 22.5 h

Q2

Teacher(s)	Maes Frédéric ;Michotte Jean-Bernard ;Reychler Gregory ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	<i>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.</i>
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <p><u>Knowledge and techniques</u></p> <p><i>At the end of this teaching unit, specifically for patients (adults, children and the elderly) with pathologies of the cardio-respiratory system studied in this course, according to a course, using an EBP (1.1) approach to physiotherapy, the student will be able to :</i></p> <ul style="list-style-type: none"> • Describe the epidemiological characteristics, the main physiopathological mechanisms and the clinical presentations of the different pathologies of the cardio-respiratory system as well as the particularities of this system in children and the elderly. (2.1, 11.2) • explain the principles of clinical tests/tools, their validation/use and psychometric qualities (2.2, 11.2) • explain the basic principles of clinical examination and interpretation (2.3) • Explain the key elements in making a diagnosis in physiotherapy and rehabilitation (2.4) • Identify the situations for which the patient must be referred (2.5) • Explain the basic principles for establishing a prognosis (2.6) • Carry out technical procedures, prescribe and demonstrate the exercises rigorously by justifying them (3.1) • Explain therapeutic interventions and their planning for standard care (guidelines) that promote patient empowerment: technical procedures, exercises and therapeutic education (patient-centred communication) (2.8, 3.1) • Explain the basic principles of continuous assessment and treatment adaptation (3.2) • Explain the rules of hygiene in relation to respiratory procedures and the risks of transmission (8.3) <p><u>Integrative and reflective skills</u></p> <p><i>At the end of this teaching unit, in a typical management situation of a patient (adult, child and elderly person) suffering from a pathology of the cardio-respiratory system (clinical vignette or simulated case; 11.3), according to an EBP approach (1.1) in physiotherapy, the student is capable of :</i></p> <ul style="list-style-type: none"> • Describe and interpret relevant medical, psychosocial and contextual information (biopsychosocial approach) from the medical record, the history and questionnaires. (2.2) • identifying the relevant clinical tools/tests for carrying out a clinical examination, giving reasons for the choice (validation; psychometric quality, etc.), and applying them rigorously and appropriately to the patient (2.3, 4.3) • analyse and feel specific respiratory patterns (2.3, 2.4, 4.3) • make a functional diagnosis by interpreting the information gathered from the history and clinical examination (including signs, physical examination, paraclinical examination, subjective assessment) and justify it (2.4, 1.2) • Identify the risk factors, signs and symptoms of specific pathologies requiring referral to the appropriate clinician, specifying the degree of urgency (2.5) • Identify signs of aggravation requiring referral to the appropriate clinician, specifying the degree of urgency (2.5) • Identify and explain the clinical, personal and contextual factors which may influence the prognosis, establish a prognosis and justify it (2.6) • Plan realistic goals for patient care and plan therapeutic intervention by developing patient empowerment; explain reasoning (2.7, 2.8, 1.2) • Carry out therapeutic interventions (technical procedures and exercises, therapeutic education) adapted to the patient's profile, using a didactic approach (3.1, 5.4) • Adapt his/her treatment according to the stage of the pathology and the patient's progress (3.2)

Evaluation methods	<p>Attendance at practical courses is mandatory, and attendance will be regularly monitored. In accordance 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. A copy of the supporting document must also be sent by email to the course coordinator no later than five working days after the student's absence. After this deadline, the absence will be considered unjustified.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>To pass this unit of study, a minimum grade of 10/20 is required. The final grade will not include decimal points:</p> <ul style="list-style-type: none"> - 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). <p>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": $c = ((n+1)/2n) \times 100$. Where:</p> <ul style="list-style-type: none"> - "c" corresponds to the "minimum passing threshold" (you must answer correctly to $(c \times 100)\%$ 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). <p>This formula implies that to achieve a score of 10/20, you need to answer correctly:</p> <ul style="list-style-type: none"> - 62.5% of the N questions if there are 4 options. - 60% of the N questions if there are 5 options. <p>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.</p> <p>Final Grade</p> <p>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.</p> <p>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.</p> <p>If the student receives a grade below 10/20 in either part, the final grade will be the lower grade.</p> <p>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.</p>
Teaching methods	<p>The educational unit is given in classroom sessions. Powerpoint is the main support. Clinical cases and video capsules will support the education. Active participation will be solicited through connected applications.</p> <p>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.</p>
Content	<p>Before reviewing the main pathological syndromes involving the respiratory system, through respiratory syndromes 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.</p>
Inline resources	Moodle platform
Bibliography	<p>La pneumologie fondée sur les preuves, 5e ed., SPLF (Editions Margaux Orange)</p> <p>Respiratory Physiology: The Essentials, 10e ed. J.B. West and A.M. Luks (Editions Wolters Kluwer)</p> <p>Pulmonary pathophysiology: The Essentials, 8e ed., J.B. West (Editions Wolters Kluwer)</p> <p>Kinésithérapie respiratoire, 3e ed. (2014), G. Reychler, J. Roeseler, P. Delguste (Elsevier Masson)</p>
Other infos	This course is strictly reserved for FSM students. It is not open to other UCLouvain students.

Faculty or entity in charge	FSM
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Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Motor Skills: Physical Education	EDPH2M	5		
Bachelor in Physiotherapy and Rehabilitation	KINE1BA	5	LFSM1102 AND LFSM1003 AND LFSM1105 AND LKNR1105	