

## COURSE OUTLINE: CLINICAL PHYSIOTHERAPY IN THE CARDIOVASCULAR & RESPIRATORY SYSTEM II

### 1. GENERAL

<b>SCHOOL</b>	SCHOOL OF HEALTH SCIENCES		
<b>ACADEMIC INIT</b>	PHYSIOTHERAPY		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	<b>PHE1</b>	<b>SEMESTER</b>	<b>5th</b>
<b>COURSE TITLE</b>	<b>CLINICAL PHYSIOTHERAPY IN THE CARDIOVASCULAR &amp; RESPIRATORY SYSTEM II</b>		
<b>INDEPENDENT TEACHING ACTIVITIES</b>	<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>	
LECTURES	2	3	
CLINICAL PRACTICE	6	4	
		7	
<b>COURSE TYPE</b>	CSM <i>Compulsory Modules of General Knowledge Background (CMGKB), Compulsory Modules of Specific Knowledge Background (CMSKB), Compulsory Specialisation Modules (CSM), Optional Modules (OM)</i>		
<b>PREREQUISITE COURSES:</b>	PHYSIOTHERAPY IN CARDIOVASCULAR DISEASES		
<b>LANGUAGE OF INSTRUCTION &amp; EXAMINATIONS:</b>	GREEK (theoretical part) GREEK or ENGLISH (clinical practice)		
<b>IS THE COURSE OFFED TO ERASMUS STUDENTS?</b>	YES (clinical practice)		
<b>COURSE WEBSITE (URL)</b>	<a href="https://eclass.uth.gr/courses/PHYSIO_U_150/">https://eclass.uth.gr/courses/PHYSIO_U_150/</a> <a href="https://eclass.uth.gr/courses/PHYSIO_U_208/">https://eclass.uth.gr/courses/PHYSIO_U_208/</a>		

### 2. LEARNING OUTCOMES

#### Learning outcomes

*The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.*

*Consult Appendix A*

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

#### Learning Outcomes of the Theoretical Part:

The student, upon completion of the course, will be able to:

1. Understands, documents, and manages findings from subjective, objective, and laboratory assessments of respiratory, cardiological, and post-surgical patients in the clinical setting, demonstrating comprehensive clinical reasoning.
2. Identifies the primary pathological issues and the clinical presentation of the patient to make well-informed therapeutic decisions.
3. Appreciates the diversity of options and the depth of clinical practice from multiple perspectives, integrating scientific evidence with both the physiotherapist's and the patient's preferences.
4. Successfully combines clinical experience with existing evidence-based knowledge.

5. Sets realistic short-term and long-term intervention goals.
6. Selects appropriate therapeutic modalities for each goal and applies them effectively, understanding their indications and contraindications to ensure the safe implementation of physiotherapeutic techniques.
7. Reassesses the therapeutic intervention by recognizing signs of improvement or deterioration in the clinical condition of respiratory, cardiological, and post-surgical patients.
8. Designs and organizes a comprehensive pulmonary and cardiovascular rehabilitation program.
9. Recognizes their role in providing healthcare services in expanded primary healthcare structures.
10. Familiarizes themselves with the use of new technologies in delivering physiotherapy services to remote areas (tele-physiotherapy).

**Learning Outcomes of the Clinical Part:**

The student, upon completion of the course, will be able to:

1. Can take a patient's history and document any disorders of various etiologies that arise from it.
2. Fully organizes a therapeutic intervention protocol for hospitalized patients.
3. Fully understands clinical findings and applies the knowledge and experience acquired from the previous course *Clinical Cardiovascular and Respiratory Physiotherapy I*, correctly interpreting clinical assessment results.
4. Organizes, implements, and reassesses the therapeutic intervention plan in the acute or chronic stage of respiratory, cardiovascular, or other diseases.
5. Applies physiotherapy techniques and therapeutic methods in both hospital and community settings (as detailed in the respective sections).
6. Implements physiotherapy techniques using modern information and communication technology for patients in remote areas without access to organized healthcare facilities.
7. Understands their role in pulmonary and cardiovascular rehabilitation as a member of the interdisciplinary healthcare team.
8. Recognizes the importance of collaboration with patients, other healthcare professionals, and fellow physiotherapists and demonstrates the ability to work effectively with them.
9. Demonstrates awareness of ethical issues in clinical practice.

**General Competences**

*Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?*

*Search for, analysis and synthesis of data and information, with the use of the necessary technology*  
*Adapting to new situations*  
*Decision-making*  
*Working independently*  
*Teamwork*  
*Working in an international environment*  
*Working in an interdisciplinary environment*  
*Production of new research ideas*

*Project planning and management*  
*Respect for difference and multiculturalism*  
*Respect for the natural environment*  
*Showing social, professional and ethical responsibility and sensitivity to gender issues*  
*Criticism and self-criticism*  
*Production of free, creative and inductive thinking*  
*Others ...*

- Research, analysis, and synthesis of data and information, utilizing the necessary technologies.
- Adaptation to new situations.
- Decision-making.
- Critical thinking and self-assessment.
- Independent work.
- Teamwork.
- Work in an interdisciplinary environment.
- Clinical case planning and management.

- Demonstration of social, professional, and ethical responsibility, with sensitivity to gender-related issues.
- Respect for diversity and multiculturalism.
- Promotion of free and inductive thinking.

### 3. SYLLABUS

#### A. THEORETICAL PART

##### Unit 1: Evidence-Based Physiotherapy Practice in Respiratory Physiotherapy (Part 1)

- Detailed presentation of techniques for improving pulmonary ventilation and their research-based evidence in relevant clinical cases in the ICU, post-surgery, and respiratory diseases.

##### Unit 2: Evidence-Based Physiotherapy Practice in Respiratory Physiotherapy (Part 2)

- Detailed presentation of techniques for improving tracheobronchial clearance and their research-based evidence in relevant clinical cases post-surgery and in respiratory diseases.

##### Unit 3: Breathing Pattern Disorders. Clinical Reasoning.

- Hyperventilation and management of pathological breathing patterns.
- Dynamic pulmonary hyperinflation and management of pathological breathing patterns.

##### Unit 4: Pulmonary Rehabilitation Program

- Presentation of evidence-based clinical practice in the rehabilitation of patients with chronic respiratory diseases (COPD, cystic fibrosis, interstitial lung diseases, pulmonary hypertension, etc.).
- The role of the physiotherapist in the interdisciplinary pulmonary rehabilitation team.

##### Unit 5: Cardiovascular Rehabilitation Programs

- Presentation of evidence-based clinical practice in the rehabilitation of patients with heart failure, post-myocardial infarction, and hypertension.
- The role of the physiotherapist in the interdisciplinary cardiac rehabilitation team.

##### Unit 6: Neuromuscular Electrical Stimulation (NMES). Evidence and Clinical Practice.

- Presentation of NMES use in patients with chronic respiratory and cardiovascular diseases experiencing muscle dysfunction. Indications, contraindications, and benefits.

##### Unit 7: Clinical Functional Tests (Clinical Cases)

- Analysis of clinical functional tests in patients with chronic respiratory and cardiovascular conditions and post-surgical patients.
- Evaluation and interpretation of data for decision-making and rehabilitation goal setting.

##### Unit 8: Infarction Unit (Clinical Case)

- Analysis of clinical assessment data for a case study. Clinical reasoning and decision-making.

##### Unit 9: Respiratory Physiotherapy in Postoperative Atelectasis (Clinical Case)

- Case study analysis. Therapeutic goals and intervention techniques. Selection and discontinuation criteria for oxygen therapy. Criteria for discontinuing physiotherapy intervention.

##### Unit 10: Intensive Care Unit (Neurological Case)

- Clinical case analysis of patients with traumatic brain injuries, strokes, and spinal cord injuries in the ICU. Criteria for mobilizing critically ill patients. Identification of indications and contraindications for physiotherapy intervention.

##### Unit 11: The Role of the Physiotherapist in the Interdisciplinary Team – Outpatient Clinics

- The physiotherapist in the hypertension clinic and smoking cessation clinic.

##### Unit 12: The Role of the Physiotherapist in Home Care for Chronic Respiratory Patients

- Tracheostomy care. Exercise with non-invasive ventilation. Techniques for improving lung volumes and tracheobronchial clearance.

##### Unit 13: Physiotherapy Intervention via Information and Communication Technologies (Clinical Cases)

- Case analysis of a chronic respiratory and/or cardiac patient receiving home care or hospitalization. Criteria for initiating physiotherapy, selection of appropriate techniques through information technologies. Designing educational interventions for the patient and their caregivers.
- Tele-physiotherapy.

#### Unit 14: Final Student Assessment - Examination

- The overall performance of students is evaluated according to the course assessment methods outlined below.

### **B. CLINICAL PART**

#### Unit 1. Clinical Practice in the ICU

- Clinical training in the Intensive Care Unit, High Dependency Unit, and Coronary Care Unit.

#### Unit 2. Clinical Training in the Pulmonology Clinic – Acute Respiratory Disease

- Comprehensive evaluation of the clinical presentation and laboratory findings of hospitalized patients with acute respiratory disease or exacerbation of chronic respiratory disease: case assessment, clinical reasoning, therapeutic intervention.
- Assessment of respiratory failure through blood gas analysis and oximetry. Selection of the appropriate oxygen therapy method (mask, nasal cannula).
- Evaluation of atelectasis by considering chest X-ray, auscultation, and thoracic cage inspection. Selection of the appropriate technique for improving pulmonary ventilation.
- Assessment of bronchial secretions based on auscultation findings and chest X-ray. Bronchial clearance: selection of the appropriate technique considering the evaluation findings and the patient's ability to cooperate. Use of bronchial clearance devices, humidification, and nebulization devices.
- Criteria for discontinuation of physiotherapy intervention.
- Application of techniques for the selected therapeutic intervention.
- Student assessment.

#### Unit 3. Clinical Training in the Pulmonology Clinic – Chronic Respiratory Disease

- Evaluation and physiotherapy intervention in patients with chronic obstructive pulmonary disease (COPD). Selection of appropriate techniques to improve dynamic hyperinflation of the thorax and pulmonary hypoventilation. Selection of the appropriate bronchial clearance device during exacerbation when chronic use is necessary. Teaching patients how to monitor exacerbations using a peak flow meter. Training patients in diaphragmatic breathing and techniques for reducing dyspnea.
- Evaluation and physiotherapy intervention in patients with cystic fibrosis. Selection of appropriate bronchial clearance techniques and devices for long-term use. Respiratory muscle strengthening exercises.
- Assessment of respiratory failure severity and physiotherapy intervention in patients with diffuse lung diseases.
- Evaluation and physiotherapy intervention in adult asthma patients.
- Application of selected therapeutic techniques based on clinical cases.
- Student assessment.

#### Unit 4. Clinical Training in the Pulmonology Outpatient Clinic

- Observation of cases in regular pulmonology outpatient clinics. Involvement of physiotherapists in the multidisciplinary team managing asthma, COPD, sleep disorders, smoking cessation, and cystic fibrosis.
- Physiotherapy evaluation of patients attending regular medical check-ups. Participation in the process of informing, educating, and managing patient symptoms.
- Prescription of appropriate exercise programs to improve muscle strength and functional capacity of skeletal and respiratory muscles.
- Training patients in dyspnea management through appropriate breathing techniques and relaxation postures.

- Providing written instructions, follow-up, and reassessment.
- Observation and participation in spirometry, diffusion testing, and measurement of respiratory muscle strength.
- Application of selected therapeutic interventions.
- Student assessment.

#### Unit 5. Clinical Training in the Intensive Cardiology Unit

- Comprehensive evaluation of the clinical presentation and laboratory findings of hospitalized patients with coronary artery disease: case assessment, clinical reasoning, therapeutic intervention.
- Criteria for initiating physiotherapy by evaluating hemodynamic stabilization markers in coronary artery disease patients. Monitor observation.
- Personalized prescription of an in-hospital exercise program, Phase I of cardiovascular rehabilitation, and its application.
- Implementation of breathing exercises and instruction on using breathing trainers.
- Bedside mobilization with progressive loading criteria (passive, assisted, and active exercise for specific body segments).
- Progressive sitting up and walking.
- Application of techniques for the selected therapeutic intervention.
- Student assessment.

#### Unit 6. Clinical Training in the Cardiology Clinic – Chronic Heart Failure

- Physiotherapy for hospitalized patients with chronic heart failure: case assessment, clinical reasoning, therapeutic intervention.
- Implementation of an in-hospital exercise program (Phase I cardiovascular rehabilitation) following evaluation of subjective and objective findings and patient cooperation.
- Assessment of indications and contraindications for mobilization.
- Outpatient Cardiology Clinic: observation of cases in regular outpatient clinics. Participation in ECG and exercise testing. Observation of echocardiography.
- Application of techniques for the selected therapeutic intervention.
- Student assessment.

#### Unit 7. Clinical Training in Cardiac Surgery

- Preoperative assessment, education, and information for cardiac surgery patients.
- Instruction on breathing exercises, use of breathing trainers, postoperative positioning, and sitting up in bed.
- Mobilization therapy to prevent postoperative complications.
- Postoperative evaluation of clinical presentation and laboratory findings. Continuous monitoring.
- Personalized prescription of an in-hospital exercise program (Phase I cardiovascular rehabilitation) and its application.
- Application of techniques to improve pulmonary ventilation and bronchial clearance. Participation in the process of mechanical ventilation support and weaning according to established criteria. Bronchial suctioning, humidification, and nebulization. Application of the active cycle of breathing technique for bronchial clearance.
- Bedside mobilization with continuous monitoring.
- Mobilization to sitting and standing positions. Walking as appropriate.
- Application of techniques for the selected therapeutic intervention.
- Student assessment.

#### Unit 8. Clinical Training in the Intensive Care Unit

- Physiotherapy for critically ill patients in the ICU: case assessment, clinical reasoning, therapeutic intervention.
- Comprehensive evaluation of clinical presentation and laboratory findings. Assessment of respiratory failure severity.
- Application of techniques to improve pulmonary ventilation. Participation in the process of mechanical ventilation support and weaning according to established criteria.
- Respiratory muscle training to facilitate weaning from mechanical ventilation.

- Continuous monitoring for the evaluation of cardiopulmonary parameters.
- Application and adjustment of oxygen therapy devices: T-piece, Venturi mask, nasal cannula.
- Application of bronchial secretion drainage techniques in bed, considering auscultation and radiographic findings. Bronchial suctioning. Use of humidification and nebulization devices.
- Application of diaphragmatic breathing, synchronization of respiratory movements, and thoracic expansion techniques for atelectasis resolution.
- Proper patient positioning for improving pulmonary ventilation and bronchial secretion drainage.
- Bedside mobilization with progressive loading criteria (passive, assisted, and active exercise for specific body parts).
- Application of neuromuscular electrical stimulation for patients with prolonged ICU stays and muscle atrophy.
- Progressive sitting up in bed.
- Application of techniques for the selected therapeutic intervention.
- Student assessment.

#### Unit 9. Clinical Training in the High Dependency Unit (HDU)

- Physiotherapy for patients in the HDU: case assessment, clinical reasoning, therapeutic intervention.
- Continuous monitoring for the evaluation of cardiopulmonary parameters.
- Application and adjustment of oxygen therapy devices: T-piece, Venturi mask, nasal cannula.
- Application of bronchial secretion drainage techniques in bed, considering auscultation and radiographic findings. Bronchial suctioning. Use of humidification and nebulization devices.
- Application of diaphragmatic breathing, synchronization of respiratory movements, and thoracic expansion techniques for atelectasis resolution.
- Bedside mobilization with progressive loading criteria (assisted, active, resistance exercises for all muscle groups).
- Application of neuromuscular electrical stimulation for patients with prolonged HDU stays and muscle atrophy.
- Progressive sitting up in bed and standing. Balance retraining in standing and walking. Assisted walking.
- Application of techniques for the selected therapeutic intervention.
- Student assessment.

#### Unit 10. Clinical Training in General Surgery – Abdominal Surgery

- Preoperative and postoperative physiotherapy for surgical patients: case assessment, clinical reasoning, therapeutic intervention.
- Instruction on breathing exercises, use of breathing trainers, postoperative positioning to prevent complications, and sitting up in bed.
- Mobilization therapy to prevent postoperative complications.
- Postoperative evaluation of clinical presentation and laboratory findings. Assessment of respiratory failure severity using blood gas analysis, oximetry, auscultation, and radiographic findings.
- Application of techniques to improve pulmonary ventilation and bronchial clearance.
- Bedside mobilization to prevent venous thrombosis.
- Assisted sitting and standing. Walking.
- Student assessment.

#### Unit 11. Clinical Training in Field Tests

- Assessment of exercise capacity in patients with chronic respiratory and cardiovascular diseases: cardiopulmonary exercise testing, application of maximal and submaximal exercise capacity tests, measurement of endurance at submaximal exercise intensity.
- Evaluation of functional capacity in patients using:
  - a) Functional walking tests: six-minute walk test.
  - b) Application of appropriate and reliable functional activity tests.
- Implementation of the tests.
- Student assessment.

Unit 12. Clinical Training in Pulmonary Rehabilitation Program

- Pulmonary rehabilitation for patients with chronic respiratory diseases, including chronic obstructive pulmonary disease (COPD), cystic fibrosis, bronchial asthma, pulmonary fibrosis, and interstitial lung diseases. Functional assessment, respiratory exercises, aerobic exercise, muscle strengthening, and patient education.
- Assessment of quality of life using disease-specific and general questionnaires.
- Evaluation of respiratory and skeletal muscle strength.
- Design of a group therapeutic exercise program based on patient assessment results.
- Patient re-education on proper breathing techniques and symptom management for dyspnea.
- Training patients in managing exacerbation symptoms.
- Long-term planning for reassessment and modification of physiotherapy interventions.
- Implementation of techniques for the selected intervention.
- Student assessment.

Unit 13. Clinical Training in Cardiovascular Rehabilitation Program

- Rehabilitation of patients with stable angina, chronic heart failure, myocardial infarction, and peripheral vascular disease. Functional assessment, respiratory exercises, aerobic exercise, muscle strengthening, and patient education.
- Assessment of quality of life using disease-specific and general questionnaires.
- Evaluation of respiratory and skeletal muscle strength.
- Design of a group therapeutic exercise program based on patient assessment results.
- Patient re-education on proper breathing techniques and symptom management during daily activities.
- Long-term planning for reassessment and modification of physiotherapy interventions.
- Implementation of techniques for the selected intervention.
- Student assessment.

Unit 14: Final Student Assessment - Examination

- The overall performance of students is evaluated according to the course assessment criteria.

#### 4. TEACHING and LEARNING METHODS – EVALUATION

<p><b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i></p>	<p><b>Face-to-Face Instruction</b></p> <p>The teaching methods for the <b>theoretical part</b> of the course include a variety of instructional approaches and tools, such as:</p> <ul style="list-style-type: none"><li>• Lectures and presentations using a whiteboard, overhead projector, fixed projection system, video, and television.</li><li>• Classroom discussions and feedback.</li><li>• Work in small groups or individual assignments.</li><li>• Student presentations.</li><li>• Guest Lecturers</li></ul> <p>The <b>laboratory part</b> of the course is taught using the following methods and tools:</p> <ul style="list-style-type: none"><li>• Demonstration and application of methods and techniques used in the rehabilitation of patients with respiratory conditions within the hospital.</li><li>• Demonstration and application of the laboratory equipment in the hospital's physiotherapy department.</li><li>• Clinical training of students in small groups.</li><li>• Presentation of clinical cases by students.</li><li>• Analysis and presentation of clinical cases.</li><li>• Clinical application.</li></ul>
<p><b>USE OF INFORMATION &amp; COMMUNICATIONS TECHNOLOGY</b></p>	<p><b>Use of ICT in Teaching, Laboratory Training, and Student Communication</b></p>

<i>Use of ICT in teaching, laboratory education, communication with students</i>	<p>Theoretical Part:</p> <ul style="list-style-type: none"> <li>Utilization of Information and Communication Technologies (ICT), including the Internet, multimedia, electronic discussions via an asynchronous learning platform, and email.</li> </ul> <p>Laboratory Part:</p> <ul style="list-style-type: none"> <li>Utilization of Information and Communication Technologies (ICT), including the Internet, multimedia, electronic discussions via an asynchronous learning platform, and email.</li> </ul>
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<p align="center"><b>TEACHING METHODS</b></p> <p><i>The manner and methods of teaching are described in detail.</i></p> <p><i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i></p> <p><i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS.</i></p>	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th align="center">Activity</th> <th align="center">Semester workload</th> </tr> </thead> <tbody> <tr> <td align="center">Lectures</td> <td align="center">30</td> </tr> <tr> <td align="center">Clinical Practice</td> <td align="center">90</td> </tr> <tr> <td align="center">Independent Study project</td> <td align="center">45</td> </tr> <tr> <td align="center"> </td> <td align="center">10</td> </tr> <tr> <td align="center"> </td> <td align="center"> </td> </tr> <tr> <td align="center"> </td> <td align="center"> </td> </tr> <tr> <td align="center"><b>Couse Total</b></td> <td align="center"><b>175</b></td> </tr> </tbody> </table>	Activity	Semester workload	Lectures	30	Clinical Practice	90	Independent Study project	45		10					<b>Couse Total</b>	<b>175</b>
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<p align="center"><b>STUDENT PERFORMANCE EVALUATION</b></p> <p><i>Description of the evaluation procedure</i></p> <p><i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i></p> <p><i>Specifically defined evaluation criteria are given, and if and where they are accessible to students.</i></p>	<p><b>Student Performance Assessment</b></p> <p>The assessment criteria for student performance are available on the course website and are specified as follows:</p> <p><b>Theoretical Part:</b></p> <p>A final written assessment (or an oral examination in the presence of two instructors) is conducted in combination with a mid-term evaluation (progress test). The final course evaluation takes place after the end of the academic semester and covers the entire taught material. The student is required to answer questions (essay or multiple choice) that evenly cover the course's teaching units, as well as questions that require critical thinking. The final theory grade ranges from 0 to 10 and is determined by the final exam (60%) and the mid-term evaluation (40%), with a predetermined weighting factor set at the beginning of the semester.</p> <p><b>Clinical Part:</b></p> <p>Oral examinations are conducted by the instructors regarding the assignment, presentation, and implementation of physiotherapeutic interventions. There is also a daily assessment in the clinical setting through laboratory exercises and the recording of patient evaluation sheets by students.</p> <p>In each session, instructors assess the student's participation and ability to effectively manage the assigned clinical case. The success or failure of the applied intervention is evaluated under the instructor's supervision. Specifically, the examination focuses on the student's ability to approach the patient, take a medical history, conduct a structured assessment, set short-term and long-term therapeutic goals, and apply appropriate</p>
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	<p>physiotherapy techniques. The student must successfully complete a set of physiotherapeutic interventions covering all cardiovascular and respiratory physiotherapy techniques in each clinical setting where they are placed.</p> <p>The final examinations are oral, requiring students to solve practical problems and perform necessary procedures (e.g., apply bronchial clearance techniques to a patient with a respiratory condition and improve pulmonary ventilation).</p> <p>The final clinical grade is 0-10, determined by the student's daily clinical performance, with equal weighting given to the grades obtained in each individual clinical placement.</p> <p>The overall student performance is evaluated by combining theoretical and clinical components of the course, using weighted coefficients that sum to 1, based on the credit units of each section. Successful completion of both theoretical and clinical components is mandatory for passing the course.</p> <p>The final grade is recorded on a 10-point scale (0-10), with a minimum passing grade of 5.</p>
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## 5. ATTACHED BIBLIOGRAPHY

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### *Scientific Journals:*

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2. Journal of the Association of Chartered Physiotherapists in Respiratory Care <https://www.acprc.org.uk/research-publications/journal/>
3. Journal of respiratory physical therapy <https://www.jstage.jst.go.jp/browse/kokyurigakuryohogaku/-char/en>
4. Cardiopulmonary Physical Therapy Journal <https://www.aptaacvp.org/cardiopulmonary-physical-therapy-journal>
5. American Journal of Preventive Cardiology <https://www.sciencedirect.com/journal/american-journal-of-preventive-cardiology>
6. Pneumon <https://www.pneumon.org/>