Use of Languages

Principal working language: catalan (cat)

Some groups entirely in English: No
Some groups entirely in Catalan: No
Some groups entirely in Spanish: No

Teachers

Miguel Angel Rubio Perez

External teachers

Ferran Escalada Recto
Marta Tejero Sanchez

Prerequisites

Students taking this subject should know basics of Biochemistry, Physiology and Human Anatomy in order to interpret the concepts of diseases that are susceptible to physiotherapy treatment.

Objectives and Contextualisation

The basic objectives are that students are able:

- To understand the most prevalent physiological and functional changes of the organs and systems in order to understand the basic concepts of medical and surgical diseases.

- To recognize and interpret the symptoms and the alarm signs derived from illnesses in the field of knowledge involved in physiotherapy.

Competences

- Analyse and synthesise.
- Develop independent learning strategies
- Display knowledge of the morphology, physiology, pathology and conduct of both healthy and sick people, in the natural and social environment.
Learning Outcomes

1. Analyse and synthesise.
2. Develop independent learning strategies
3. Explain the physiopathology of the principal diseases that can be treated by physiotherapy and identify the symptoms that appear during the process.

Content

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UNIT 1

General Pathology, concept and relationship with other disciplines. The sick human being. Concepts of health and illness. Concepts of nosology, nosothagia, pathocronia, etiology, pathogenesis, semiology, physiopathology, semiotics.

UNIT 2


UNIT 3


UNIT 4


UNIT 5


UNIT 6

Hypoxia. Types of hypoxia. Hypoxia compensation mechanisms. Consequences of hypoxia. Concept and physiopathology of cyanosis. Types of cyanosis: central or arterial and peripheral or venous. Hypercapnia: concept, mechanisms, causes and consequences.

UNIT 7

Pathophysiology of dyspnea and respiratory rhythm disorders. Concept, evaluation and mechanisms of dyspnea. Dyspnea more frequent causes and clinical implications.

UNIT 8


UNIT 9

UNIT 10


UNIT 11


UNIT 12

Physical examination of the respiratory system. Other diagnostic procedures: radiology, and pulmonary function tests.

UNIT 13


UNIT 14

Pathophysiology of cardiac rhythm and heart rate disorders. Mechanisms and causes of arrhythmias. Pathophysiology of blood pressure. Hypertension: mechanisms, causes and consequences. Hypotension: mechanisms, causes and consequences.

UNIT 15


UNIT 16


UNIT 17

Physical examination of the circulatory system. Diagnostic tests: electrocardiography, echocardiography, cardiopulmonary exercise testing.

UNIT 18


UNIT 19

Pathophysiology of consciousness. The sleep. The coma. Pathophysiology of the vegetative nervous System.

UNIT 20

Pathophysiology of the peripheral nervous system. Main disorders of the peripheral nervous system.

UNIT 21

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UNIT 22


UNIT 23

Main cancer types: breast, prostate, colon, lung.

UNIT 24

Urinary semiology: dysuria, polaquiuria, urinary retention. Pathophysiology of the urinary tract.

UNIT 25


UNIT 26

Pathophysiology of red blood cells (erythrocytes). Anemic syndrome and polycythemic syndrome.

UNIT 27

Pathophysiology of white blood cells (leukocytes) and lymphocytes. Leukemia Myeloproliferative syndromes.

UNIT 28


UNIT 29


UNIT 30

Main symptoms of the digestive system: pain, dysphagia, nail biting, heartburn, ptyalism, sialorrhea, vomiting, regurgitation. Hematemesis and melena. Gastrointestinal bleeding.

UNIT 31

Hepatocellular failure syndrome. Portal hypertension syndrome.

UNIT 32

Jaundice and cholestasis. Pathophysiology of the extrahepatic bile duct and pancreas. Physical examination of the digestive system. Diagnostic tests.

UNIT 33

Pathophysiology of the endocrine system. Pathophysiology of the hypothalamus pituitary axis. Pathophysiology of growth and development.

UNIT 34
Physiopathology of glucide metabolism. Diabetes.

UNIT 35

Complications of diabetes.

UNIT 36

Pathophysiology of lipid metabolism. Dyslipidemia. Pathophysiology of the metabolism of proteins. Obesity and malnutrition

UNIT 37


UNIT 38

Pathophysiology of the joints. Inflammatory and degenerative disorders: arthritis and arthrosis.

UNIT 39

Complementary explorations of the locomotive system: radiology, computerized tomography, magnetic resonance, ultrasound.

Methodology

The subject contains theory, classroom practices and self study.

Activities

<table>
<thead>
<tr>
<th>Title</th>
<th>Hours</th>
<th>ECTS</th>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type: Directed</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLASSROOM PRACTICES</td>
<td>6</td>
<td>0.24</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td>THEORY</td>
<td>39</td>
<td>1.56</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td><strong>Type: Autonomous</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PREPARATION OF WRITTEN WORKS</td>
<td>30</td>
<td>1.2</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td>READING ARTICLES / REPORTS OF INTEREST</td>
<td>13</td>
<td>0.52</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td>SELF-STUDY</td>
<td>60</td>
<td>2.4</td>
<td>1, 2, 3</td>
</tr>
</tbody>
</table>

Assessment

<table>
<thead>
<tr>
<th>Tipology</th>
<th>Duration</th>
<th>Description of the evaluation tests</th>
<th>Evaluation criteria</th>
<th>% of final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written exam 1</td>
<td>30 minutes</td>
<td>Each question correctly answered adds 1 point. Each question erroneously answered subtracts 0.33 points.</td>
<td>40%</td>
<td></td>
</tr>
</tbody>
</table>
Objective test of item selection. Test of 25 questions, with 4 options per question, of which 1 is correct.

Unanswered questions will not score.
If the student does not present the test, it will be considered non-evaluable.
Minimum grade to pass: 50% of the possible score.

<table>
<thead>
<tr>
<th>Written exam 2</th>
<th>30 minutes</th>
<th>Objective test of item selection. Test of 25 questions, with 4 options per question, of which 1 is correct.</th>
<th>40%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Each question correctly answered adds 1 point. Each question erroneously answered subtracts 0.33 points. Unanswered questions will not score.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>If the student does not present the test, it will be considered non-evaluable.</td>
<td></td>
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<tr>
<td></td>
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<td>Minimum grade to pass: 50% of the possible score.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case studies and problem solving</th>
<th>Case studies and problem solving that the students will answer in writing and they will work in classroom practices.</th>
<th>15%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Attendance and active participation</th>
<th>From attendance and attitude during classroom theory and practices.</th>
<th>5%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Recovery written exam</th>
<th>60 minutes</th>
<th>Objective test of item selection. Test of 50 questions, with 4 options per question, of which 1 is correct.</th>
<th>80%</th>
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<tbody>
<tr>
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<td></td>
<td>Each question correctly answered adds 1 point. Each question erroneously answered subtracts 0.33 points. Unanswered questions will not score.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>If the student does not present the test, it will be considered non-evaluable.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Final grade</th>
<th>5% Attendance and participation 15% Case studies and problem solving 40% Exam 1 40% Exam 2</th>
<th>It is essential to pass exams 1 and 2, or the recovery exam to pass the subject. Minimum grade to pass the subject: 50% of the score possible.</th>
</tr>
</thead>
</table>

*The dates of the evaluations and exams will be according to calendar*

**Assessment Activities**

<table>
<thead>
<tr>
<th>Title</th>
<th>Weighting</th>
<th>Hours</th>
<th>ECTS</th>
<th>Learning Outcomes</th>
</tr>
</thead>
</table>

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Written evaluation 1: Objective tests multiple choice questions  40%  
Attendance and active participation in classroom practices  5%  
Evaluation through case studies and problem solving  15%  
Written evaluation 2: Objective tests multiple choice questions  40%  

Bibliography


Robbins Basic Pathology, 8th Edition By Vinay Kumar, MBBS, MD, FRCPath, Abul K. Abbas, MBBS, Nelson Fausto, MD and Richard Mitchell, MD, PhD
