



## DISCIPLINE SHEET

### 1. Study programme

|      |   |
|------|---|
| 1.1. | "CAROL DAVILA" UNIVERSITY OF MEDICINE AND PHARMACY BUCHAREST        |
| 1.2. | FACULTY OF MEDICINE   |
| 1.3. | DEPARTMENT 4 – Cardio-Thoracic Pathology                            |
| 1.4. | DISCIPLINE Pneumology   |
| 1.5. | STUDY DOMAIN: Health, Sectorial regulated within the European Union |
| 1.6. | STUDY LEVEL: I (Bachelor's degree) and II (Master's degree)         |
| 1.7. | STUDY PROGRAMME: MEDICINE IN ENGLISH                                |

### 2. Discipline

|                    |   |               |          |                         |                           |
|--------------------|---|---------------|----------|-------------------------|---------------------------|
| 2.1.               | Discipline name according to the study curriculum: Pneumology, phthiisology, occupational diseases – labour medicine, thoracic surgery – Pneumology |               |          |                         |                           |
| 2.2.               | Discipline code: DS IV 2M   |               |          |                         |                           |
| 2.3.               | Discipline type (FD/SD/CD): SD  |               |          |                         |                           |
| 2.4.               | Discipline optionality (COD/ED/FAD): COD  |               |          |                         |                           |
| 2.5.               | Lectures tenure:  |               |          |                         |                           |
| 2.6.               | Practical classes / seminar tenure:   |               |          |                         |                           |
| 2.7. Year of study | IV  | 2.8. Semester | VII-VIII | 2.9. Evaluation (E/C/V) | E (written and practical) |

### 3. Estimated total time (hours/ semester of teaching and training activity /individual study)

|   |     |             |              |    |                               |              |
|---|-----|-------------|--------------|----|-------------------------------|--------------|
| <b>I. University training</b>   |     |             |              |    |                               |              |
| 3.1. Number of hours per week   | 25  | from which: | 3.2. lecture | 10 | 3.3. practical class/ seminar | 15           |
| 3.4. Total hours in the study curriculum  | 105 | from which: | 3.5. lecture | 42 | 3.6. practical class/ seminar | 63           |
| Evaluation (no. hours): 4 (included in the above numbers)   |     |             |              |    |                               |              |
| <b>II. Preparation/ individual study (includes phthiisology, occupational diseases, thoracic surgery)</b> |     |             |              |    |                               |              |
| <b>Time distribution</b>  |     |             |              |    |                               | <b>hours</b> |
| Study of lecture materials, textbooks, books, study of the minimum recommended bibliography               |     |             |              |    |                               | 40           |
| Additional documentation activity in the library, on online platforms                                     |     |             |              |    |                               | 20           |
| Specific preparation activities for projects, practical classes, preparation of assignments, reports      |     |             |              |    |                               | 10           |
| Preparation for presentations or evaluations, preparation for the final examination                       |     |             |              |    |                               | 30           |
| Tutoring activity   |     |             |              |    |                               | 3            |
| Other activities  |     |             |              |    |                               | 2            |
| 3.7. Total hours of individual study  |     |             |              |    |                               | 105          |
| 3.9. Total hours per semester (3.4.+3.7.)   |     |             |              |    |                               | 210          |
| 3.10. Number of credits (including phthiisology, occupational diseases, thoracic surgery)                 |     |             |              |    |                               | 9            |

#### 4. Prerequisites (where appropriate)

|                           |  |
|---------------------------|--|
| <b>4.1. curriculum</b>    | Basic knowledge of respiratory system anatomy, physiology, pathology, pathophysiology, pharmacology, and semiology |
| <b>4.2. proficiencies</b> | General physical examination of the patient  |

#### 5. Conditions (where appropriate)

|   |  |
|---|--|
| <b>5.1. for lecture activity</b>                  | Lecture hall in Elias Hospital, multimedia projector, laptop |
| <b>5.2. for practical class/ seminar activity</b> | Seminar hall and Pneumology department in Elias Hospital     |

#### 6. Learning outcomes\*

| <b>Knowledge</b>  | <b>Skills</b>   | <b>Responsibility and autonomy</b>  |
|---|---|---|
| Student knows, understands and interpret:<br>epidemiology, disease mechanisms, clinical and laboratory manifestations, principles of evidence-based diagnosis and specific treatment of the main respiratory diseases (included in the programme) | Student applies acquired knowledge in the care of patients with respiratory diseases by:<br>- recommendation and interpretation of results of laboratory investigations<br>- integration of clinical and laboratory data in a diagnostic approach<br>- design of a personalised therapeutic plan<br>Student performs complete history taking and physical examination of a respiratory patient, presents clinical cases, communicates efficiently and empathically with the patient and with other members of the care team | Student integrates and elaborates, under appropriate supervision, the diagnostic approach, personalized therapeutic plan for patients with respiratory diseases, as well as personalised prevention strategy. |
|   |   |   |

#### 7. Discipline objectives (correlated with learning outcomes)

|                                 |   |
|---------------------------------|---|
| <b>7.1. General objective</b>   | Correct diagnosis in respiratory diseases<br>Application of a management plan for patients with respiratory diseases  |
| <b>7.2. Specific objectives</b> | - Correct diagnosis of a respiratory disease<br>- Design of an appropriate therapeutic plan<br>- Design of a prevention programme in patients with respiratory diseases (e.g. smoking cessation)<br>- Development of responsible and autonomous medical activity in a multidisciplinary care team |

#### 8. Contents

| <b>8.1. Lecture</b>                                 | <b>Teaching methods</b> | <b>Observations</b> |
|---|-------------------------|---------------------|
| 1. Anatomy and physiology of the respiratory system | Multimedia projector    | 2 hours             |
| 2. Investigation in pneumology                      |                         | 2 hours             |

|   |   |                     |
|---|---|---------------------|
| 3. COPD   |   | 4 hours             |
| 4. Asthma   |   | 4 hours             |
| 5. Pleural diseases   |   | 4 hours             |
| 6. Pneumonia  |   | 4 hours             |
| 7. Bronchiectasis. Cystic fibrosis. Lung abscess  |   | 2 hours             |
| 8. Lung cancer  |   | 2 hours             |
| 9. Respiratory failure  |   | 2 hours             |
| 10. Sleep-disordered breathing  |   | 2 hours             |
| 11. Interstitial lung diseases  |   | 4 hours             |
| 12. Pulmonary hypertension. Cor pulmonale   |   | 2 hours             |
| 13. Tobacco smoking   |   | 2 hours             |
| 14. Mediastinal diseases  |   | 2 hours             |
| 15. Pulmonary embolism  |   | 2 hours             |
| 16. Chronic cough. Haemoptysis  |   | 2 hours             |
| <b>8.2. Practical classes/ seminar</b>  | <b>Teaching methods</b>   | <b>Observations</b> |
| 1. SC – Notions of respiratory system anatomy   | Small groups workshops  | 2 hours             |
| 2. SC – Notions of respiratory system semiology   | Practical demonstrations  | 3 hours             |
| 3. SC – Imaging diagnostic – radiological examination   | Interactive clinical cases presentations  | 3 hours             |
| 4. SC – Imaging diagnostic – CT examination   | Bedside clinical stage  | 3 hours             |
| 5. SC – Functional diagnostic - spirometry  | One practical session will take place at the “Digital training centre in minimally invasive and interventional therapy”, in 19 Thomas Masaryk street, founded through project e-PNRR: 2009669020 with European funding, in the Pneumology Laboratory, using medical simulators – Endo Mentor (Endoscopy simulator for gastroenterology, urology, pneumology) and BodyWorks Eve (virtual ultrasound simulator for POCUs and TEE and TTE ultrasound with mannequin) | 3 hours             |
| 6. SC – Functional diagnostic - plethysmography and transfer factor   |   | 2 hours             |
| 7. SC – Respiratory failure diagnostic – Astrup method  |   | 2 hours             |
| 8. SC – EKG – useful features in respiratory diseases   |   | 3 hours             |
| 9. SC – Bronchoscopic examination   |   | 3 hours             |
| 10. SC – Diagnosis of obstructive lung disease  |   | 3 hours             |
| 11. SC – Diagnosis of restrictive lung disease  |   | 2 hours             |
| 12. SC – Smoking cessation therapy  |   | 3 hours             |
| 13. SC – Inhalation drugs and delivery devices  |   | 2 hours             |
| 14. SC – Bronchodilators  |   | 2 hours             |
| 15. SC – Diagnosis of sleep disorders   |   | 2 hours             |
| 16. SC – Titration with polygraphy  |   | 2 hours             |
| 17. SC – Exercise test in pneumology  |   | 2 hours             |
| 18. SC – Non-invasive ventilation aspects in patients with severe respiratory conditions  |   | 3 hours             |
| 19. SC – Palliative elements in lung diseases   |   | 2 hours             |
| 20. SC – Lung tumours – diagnostic and treatment  |   | 3 hours             |
| 21. SC– Pleural drainage  |   | 2 hours             |
| 22. SC – Thoracentesis / Pleural biopsy   |   | 2 hours             |
| 23. Commented clinical cases  |   | 8 hours             |
| <b>Recent bibliography:</b>   |   |                     |
| <ul style="list-style-type: none"> <li>• <b>Kumar si Clark Medicină Clinică. Ediția a 10-a în limba română. 2021. Coordonatori: Leonard Azamfirei, Anca Dana Buzoianu, Dan Ionuț Gheonea</b></li> </ul> |   |                     |
| Capitolul 6. Boli maligne: Cancerul bronhopulmonar (pag.118-120)  |   |                     |
| Capitolul 10. Terapie intensivă: Transportul si consumul de oxigen (pag. 206-208), Insuficienta Respiratorie (pag. 224-232), Sindromul de detresa respiratorie acută (pag. 232-234)                     |   |                     |
| Capitolul 20. Boli infecțioase: Infecții virale de tract respirator inferior (pag. 520-521)   |   |                     |
| Capitolul 28. Pneumologie (pag. 949-982)  |   |                     |

|   |
|---|
| Capitolul 29. Boala tromboembolică venoasă (pag. 1001-1017)<br>Capitolul 30. Cardiologie: Boli cardiace de cauză pulmonară (1115-1117)<br><ul style="list-style-type: none"> <li>• Lectures electronic support of the Discipline</li> </ul> |
|---|

## 9. Assessment

| Activity type   | 9.1. Evaluation criteria   | 9.2. Evaluation methods   | 9.3. Percentage of final grade |
|---|--|---|--------------------------------|
| <b>9.4. Lecture</b>   | Assessment of theoretical knowledge  | Multiple choice question test with 60 questions (Pneumology)            | 50%                            |
|   |  | Multiple choice question test with 30 questions (Phthysiology)          | 10%                            |
|   |  | Multiple choice question test with 10 questions (Occupational Medicine) | 10%                            |
| <b>9.5. Practical classes/ seminar</b>                      | Interpretation of medical investigations<br>Correlation of investigations results with clinical data | Oral practical examination  | 30%                            |
| <b>9.5.1. Individual project (if any)</b>                   | N/A  |   |                                |
| <b>Minimum performance standard</b>                         |  |   |                                |
| <b>50% for each component (each component is mandatory)</b> |  |   |                                |

**Date:**  
September 22<sup>nd</sup> 2025

**Lecture tenure signature**

**Practical classes / seminars signature**

**Date of the approval in the Department Board:**

**Department director signature**