

### Study program: Doctoral Academic Studies in Biomedical Sciences

Name of the subject: PULMONOLOGY

**Teacher(s):** Biljana S. Zvezdin, Ivan Š. Kopitović, Marija N. Vukoja, Dušanka S. Obradović, Miroslav P. Ilić, Violeta P. Kolarov, Jovan A. Matijašević, Ivan M. Kuhajda, Jelena Đekić Malbaša, Anika Đ. Trudić, Aleksandra N. Lovrenski, Nataša M. Prvulović-Bunović

Status of the subject: elective

Number of ECTS points:20

## Condition: -

## Goal of the subject

The goal of the study course "Pulmonology" is to acquire knowledge on diagnosis and treatment of lung diseases in accordance with up to date recommendations and evidence-based medicine. Attendees will gain insight into current scientific trends and research in pulmonary medicine. Through a multidisciplinary approach, the course covers the latest research in the field of functional, microbiological, pathohistological and radiological diagnostics, epidemiology of lung diseases, chronic obstructive pulmonary disease, asthma and allergic diseases, interstitial and granulomatous lung diseases, pulmonary vasculature diseases, pulmonary infections, cystic fibrosis, intensive care, non-invasive mechanical ventilation, lung transplantation and pulmonary rehabilitation.

### Outcome of the subject

Participants will gain knowledge about the latest concepts in the diagnosis and treatment of pulmonary diseases.

Participants will be able to analyze and evaluate the results of current research in the field of pulmonology.

With the use of acquired knowledge and skills within this subject, as well as the adopted methodology of scientific work during the entire doctoral studies participants will be able to conduct research of their doctoral dissertation.

#### **Content of the subject**

Theoretical lectures:

The theoretical part is conceived as an overview of modern scientific knowledge in the field of pulmonology, with an emphasis on the latest achievements and current research.

- Epidemiology of lung diseases
- Functional tests in pulmonology
- Radiological imaging of lung diseases
- Microbiological diagnosis of lung diseases
- Histopathological diagnosis of lung diseases
- Asthma and allergic lung diseases
- Chronic obstructive pulmonary disease
- Pneumonia
- Bronchiectasis and cystic fibrosis
- Interstitial and granulomatous lung diseases
- Pulmonary hypertension and pulmonary thromboembolism
- Intensive care of pulmonary patients sepsis, septic shock and ARDS
- Non-invasive mechanical ventilation in hospital and home settings
- Obstructive sleep apnea-impact on comorbidities and therapeutic modalities
- Lung transplantation
- Pulmonary rehabilitation

### **Recommended literature**

- 1. Kasper DL, Fauci AS, Hauser SL, Longo DL, Jameson L, Loscalzo J. Harrison's Principles of Internal Medicine, 20th Ed. McGraw-Hill, 2018.
- 2. Palange P, Rohde G. ERS Handbook of Respiratory Medicine, 3rd Ed. European Respiratory Society, 2019 *Additional*

# recommended by the lecturer

Number of active classes	<b>Theory:</b> 60	Practice: 45	
Teaching methods:			
Mentoring, lectures, consultations, debates, discussions and essays			
Evaluation of knowledge (maximum number of points 100)			
lectures: 30			

essay: 30	
oral exam: 40	