

Course name: Clinical mycology (B-BTM.058E)

ECTS: 4

No. of hours: 45 (15 lectures + 30 classes)

Course coordinator: Dr hab. Sylwia Wdowiak-Wróbel, prof. UMCS; Dr Monika Marek-Kozaczuk

Prerequisites: Basic knowledge of microbiology, physiology, and immunology

Course description: Lectures: The module covers the knowledge in the area of fungi that cause human diseases. Basic information on the human microbiome and medically important pathogens: A brief historical overview. Mycological concepts. Systematics of pathogenic fungi. Fungal morphology. Structure of the fungal cell and mycelium. Variety of forms of reproduction. Mycotoxins. Review of pathogenic mold and yeast fungi and dermatophytes. Dimorphic fungi. Superficial and deep mycoses with their clinical picture. Defense mechanisms in fungal infections. Factors increasing the risk of developing mycoses. Standards of diagnostic procedures (collection and transport of diagnostic materials, cultivation, isolation, and identification of fungi). Antifungal drugs. Pharmacotherapy of selected mycoses.

Laboratory classes: Organization of work in a mycological laboratory; Preparation and storage of mycological media; Testing the mycological purity of various laboratory surfaces; Methods of making preparations and establishing micro-cultures; Micro- and macroscopic characteristics of selected representatives of mold fungi; Selection of the site and soil sampling for mycological analysis; Characteristics of representatives of yeast-like fungi; Diagnostic tests used to identify yeast-like fungi; Antimycograms; Identification and characterization of dermatophytes

Recommended literature: Fundamental Medical Mycology Errol Reiss H. Jean Shadomy G. Marshall Lyon III; Fungal Pathogenesis: Principles and Clinical Applications Richard Calderone; Textbook of Medical Mycology Chander Jagdish; Medical Microbiology, Jawetz, Melnick, & Adelberg's