SYLLABUS

Name: ***Medical microbiology (25-BI-S2-W-MM-AN)***
Name in Polish: **Mikrobiologia medyczna**
Name in English: ***Medical microbiology***

Information on course:

Course offered by department: Faculty of Biological Sciences
Course for department: Faculty of Biological Sciences

Default type of course examination report:

Grading

Language:

English

Short description:

Prerequisites regarding knowledge, skills, and social competences for the course/module:
The student has basic knowledge in the field of biological sciences, mainly microbiology, genetics and immunology; uses biological terminology, with particular emphasis on microbiological vocabulary; applies the principles of sterility and sterile work in the cultivation of microorganisms; appreciates the role of microbiology in environmental and health protection.

Student's own work:
- preparing for classes: 50h
- reading scientific literature: 25h

Description:

Educational aims:
Presentation of the most important human bacterial pathogens and methods used in laboratory diagnostics.

Course content:
Clinical diagnostics, bacterial virulence factors, taxonomy and overview of the major human bacterial pathogens, antibiotics and mechanisms of bacterial resistance to antibiotics.

Bibliography:

Mandatory and recommended reading list:
Brock Biology of Microorganisms. Twelfth Edition. Pearson BenjaminCummings. 2009 (selected chapters)
Bacterial Infections of Humans, Epidemiology and Control, Fourth Edition, Brachman & Abrutyn, Springer 2009 (selected chapters)

Learning outcomes:

Intended learning outcomes
Student:

Knowledge:
K_W10
knows what basic diagnostic methods are used in medical microbiology;

K_W01, K_W06
defines the characteristics determining the virulence of microorganisms;

K_W01
knows the most common human pathogens and their pathogenicity;

K_W06
gives examples of bacterial drug resistance mechanisms.

Skills:
K_U01
uses the media most commonly used in routine microbiological diagnostics;

K_U04
uses methods to determine the sensitivity of pathogenic bacteria to antibiotics.

K_U06
identifies basic microorganisms belonging to the most common human pathogens;
analyzes the basic mechanisms of microbial resistance to antibiotics;

Competence:
K_K02
is open to working in a team.

K_K03
acts in accordance with the basic rules applicable when working with potentially infectious material;

Assessment methods and assessment criteria:

Assessment methods for the intended learning outcomes:
- written test,
- practical tests

Credit requirements for individual components of the course/module:
- continuous control of attendance and progress in the subject of classes,
- writing a class report,
- written test.

Course credits in various terms:

<without a specific program>

Type of credits	Number	First term	Last term
European Credit Transfer System (ECTS)	4	2024/25-Z	