



Microbiology I

ECTS: 5.00

SUBJECT MATTER CONTENT

TEACHING OBJECTIVE

Presentation of the basic knowledge of the morphology and physiology of bacteria, viruses, fungi and prions. Understanding the mechanisms of pathogenic action of these microorganisms.

DESCRIPTION OF THE LEARNING OUTCOMES OF THE COURSE IN RELATION TO THE DESCRIPTION OF THE CHARACTERISTICS OF THE SECOND LEVEL LEARNING OUTCOMES FOR QUALIFICATIONS AT LEVELS 6-8 OF THE POLISH QUALIFICATION FRAMEWORK IN RELATION TO THE SCIENTIFIC DISCIPLINES AND THE EFFECTS FOR FIELDS OF STUDY:

Symbols for outcomes related to the discipline:

R/WA_P7S+++

Symbols for outcomes related to the field of study:

K.1.+ , B.U6. + , B.U25. + , A.W10. + , A.W15. ++ , K.11.+ , A.W13. + , A.W11. +++ , A.U2. + , A.U16. + , A.W12. + , B.U14. + , A.U10. + , K.2.+ , K.8.+

LEARNING OUTCOMES:

Knowledge:

W1 – Student knows and understands biology of microorganisms causing infectious diseases as well as mechanisms for diseases transmission and mechanisms for immune response of the host.

W2 – Can properly name stages of viral infection on the levels of cell and organism.

W3 – Can explain pathogenesis of viral, bacterial and fungal diseases.

W4 – Can list and describe stages of diagnostic process from the moment of the sampling to the full identification.

W5 – Knows basics of the microbiological diagnostics.

Skills:

U1 – Can perform basic microbiological diagnostics.

U2 – Is able to work safely in the microbiological laboratory using standard aseptic techniques.

U3 – Applies appropriate methods of pathogen isolation and identification.

Social competence:

K1 – Is ready to show responsibility for decisions taken against people, animals and environment.

K2 – Is aware of the importance of the health and life risks posed by pathogenic microorganisms.

K3 – Understands the need to improve knowledge and skills.

K4 – Is acting in accordance with the principles of bioethics and professional ethics.

TEACHING FORMS AND METHODS:

Legal acts specifying learning outcomes:
682/2020
Disciplines: Veterinary science
Status of the course: Obligatoryjny
Group of courses: A - przedmioty podstawowe
Code: ISCED 0841
Field of study: Veterinary Medicine
Scope of education:
Profile of education: General academic
Form of studies: full-time
Level of studies: uniform master's studies
Year/semester: 2/3

Types of classes: Lecture, Classes
Number of hours in semester: Lecture: 30.00, Classes: 30.00
Language of instruction: Polish
Introductory subject: biology
Prerequisites: Basic knowledge of biology.

Name of the organisational unit conducting the course: Katedra Mikrobiologii i Immunologii Klinicznej
Person responsible for the realization of the course: dr hab. wet. Joanna Małaczewska, prof. UWM
e-mail:
joanna.malaczewska@uwm.edu.pl

Additional remarks:

Lecture(W1;W2;W3;K1;K2;K3;K4;):Multimedia presentation.

Classes(W4;W5;U1;U2;U3;K1;K2;K3;K4;):Theoretical introduction to classes (multimedia presentation) and practical work with material.

FORM AND CONDITIONS OF VERIFYING LEARNING OUTCOMES:

Lecture (Colloquium test) - Two written tests are planned per semester, based on which the final grade for the classes is determined. To pass the colloquium, obtaining min. 65% of possible points is necessary. The grading is based on the principles described in the faculty procedure "Principles of grading students". A student may attempt to improve colloquium twice. The condition for receiving the final pass is obtaining a pass from the colloquium held in the course of the classes. In case of top-down suspension of stationary classes and the need for distance learning, the methods of verifying the achievement of learning outcomes declared in the syllabus, i.e. forms of passing the exam and classes, may change in a manner appropriate to the situation. -

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BASIC LITERATURE:

1. Michael T. Madigan, Kelly S. Bender, Daniel H. Buckley, W Matthew Sattley, David A. Stahl, *Brock Biology of Microorganisms*, Wyd. Pearsons, R. 2017
2. Zdzisław Larski, Marian Truszczyński, *Zarys mikrobiologii weterynaryjnej*, Wyd. Wydawnictwo ART, R. 1992
3. Konrad Malicki, Marian Binek, *Zarys klinicznej bakteriologii weterynaryjnej*, Tom 1, Wyd. Wydawnictwo SGGW, R. 2004

SUPPLEMENTARY LITERATURE: