*Attachment No. 5 to Rector's ordinance No. 22/2020*

# DESCRIPTION OF THE COURSE OF STUDY

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|---|---|---|
| **Course code** | **0511-2BIO-D07-WM** | |
| **Name of the course in** | Polish | **Medical virology** |
| | English | **Wirusologia medyczna** |

## 1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

| | |
|---|---|
| **1.1. Field of study** | **Biology** |
| **1.2. Mode of study** | **Full-time studies** |
| **1.3. Level of study** | **Biology** |
| **1.4. Profile of study*** | **second-degree studies** |
| **1.5. Person/s preparing the course description** | **Paulina Żarnowiec** |
| **1.6. Contact** | Paulina.zarnowiec@ujk.edu.pl |

## 2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

| | |
|---|---|
| **2.1. Language of instruction** | English |
| **2.2. Prerequisites*** | **basic information in the field of immunology, general microbiology** |

## 3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

| | | |
|---|---|---|
| **3.1. Form of classes** | | **lecture/laboratory** |
| **3.2. Place of classes** | | English |
| **3.3. Form of assessment** | | **Lecture exam/laboratory credit with grades** |
| **3.4. Teaching methods** | | **Lecture, discussion, independent experiments** |
| **3.5. Bibliography** | **Required reading** | Goździcka-Józefiak Anna,Wirusologia, 2019, Wydawnictwo Naukowe PWN |
| | **Further reading** | Marta Wróblewska, Tomasz Dzieciątkowski**,** Choroby wirusowe w praktyce klinicznej, 2017, PZWL Wydawnictwo Lekarskie |

## 4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED LEARNING OUTCOMES

**4.1. Course objectives** ***(including form of classes)***

***Lecture:***

***C1-introducing students to the basic elements of the structural and molecular structure of viruses***

***C2-overview of the mechanisms of multiplication of viruses and their pathological effects***

***C3-overview of the mechanisms of epidemic development***

***Lab:***

***C1- familiarizing students with the methods of virus infection diagnosis***

**4.2. Detailed syllabus** ***(including form of classes)***

***Lectures: The course in medical virology covers: definition and history of virology, genomes and genetics of viruses, structure of viruses, infectious cycle of viruses, methods of virus spreading, vaccines.***

***Laboratory: Laboratory classes include: detection of viruses by plaque method, isolation of bacteriophages from the environment, testing of viral antigens.***

**4.3 Intended learning outcomes**

| **Code** | **A student, who passed the course** | **Relation to learning outcomes** |
|---|---|---|
| within the scope of **KNOWLEDGE:** | | |
| W01 | Student performs a multifaceted comparative analysis of the influence of the virus genome type, its capsid structure and physiological properties on the virus infection cycle. | BIO2A_W03 |
| W02 | Student recognizes that the growth of the epidemic is the most important research problem of virology science, both cell culture and molecular biology methods are involved in assessing this process. Understanding and counteracting this process requires an interdisciplinary approach, taking into account the impact of areas such as geopolitics, environmental and cultural changes, which have a direct impact on the epidemiological success of viruses. | BIO2A_W01 |
| within the scope of **ABILITIES:** | | |
| U01 | Student can analyze and verify the results of scientific research and distinguish between diagnostic parameters based on known methods. | BIO2A_U03 |

| | | |
|---|---|---|
| U02 | Student can properly select sources, critically evaluate the results of experiments, control and diagnostic observations, as well as calculate and discuss measurement errors. | BIO2A_U05 |
| within the scope of **SOCIAL COMPETENCE:** | | |
| K01 | Student is ready to critically evaluate the received content on the emergence and spread of an epidemic and recognize the importance of knowledge about virus structure for verification of this content | BIO2A_K01 |
| K02 | Student is ready to fulfill social obligations, inspire and educate the public to counter disinformation about vaccination against viral diseases. | BIO2A_K02 |

**4.4. Methods of assessment of the intended learning outcomes**

| **Teaching outcomes** *(code)* | **Method of assessment (+/-)** | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Exam oral/written*** | | | **Test*** | | | **Project*** | | | **Effort in class*** | | | **Self-study*** | | | **Group work*** | | | **Others* e.g. standardized test used in e-learning** | | |
| | ***Form of classes*** | | | ***Form of classes*** | | | ***Form of classes*** | | | ***Form of classes*** | | | ***Form of classes*** | | | ***Form of classes*** | | | ***Form of classes*** | | |
| | *L* | *C* | ... | *L* | *C* | ... | *L* | *C* | ... | *L* | *C* | ... | *L* | *C* | ... | *L* | *C* | ... | *L* | *C* | ... |
| W01 | | | | + | | | | | | | | | | | | | | | | | |
| W02 | | | | + | | | | | | | | | | | | | | | | | |
| U01 | | | | | + | | | | | | | | | | | | | | | | |
| U02 | | | | | + | | | | | | | | | | | | | | | | |
| K01 | | | | | | | | | | | + | | | | | | | | | | |
| K02 | | | | | | | | | | | + | | | | | | | | | | |

***delete as appropriate***

**4.5. Criteria of assessment of the intended learning outcomes**

| **Form of classes** | **Grade** | **Criterion of assessment** |
|---|---|---|
| **lecture (L) (including e-learning)** | **3** | 51-60% of the maximum number of points in the test |
| | **3,5** | 61-70% of the maximum number of points in the test |
| | **4** | 71-80% of the maximum number of points in the test |
| | **4,5** | 81-90% of the maximum number of points in the test |
| | **5** | 91-100% of the maximum number of points in the test |
| **classes (C)* (including e-learning)** | **3** | 51-60 % of the maximum number of points in the test |
| | **3,5** | 61-70% of the maximum number of points in the test |
| | **4** | 71-80% of the maximum number of points in the test |
| | **4,5** | 81-90% of the maximum number of points in the test |
| | **5** | 91-100% of the maximum number of points in the test |

## 5. BALANCE OF ECTS CREDITS – STUDENT'S WORK INPUT

| **Category** | **Student's workload** | |
|---|---|---|
| | **Full-time studies** | **Extramural studies** |
| *NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/* | ***30*** | |
| *Participation in lectures** | 15 | |
| *Participation in classes, seminars, laboratories** | 15 | |
| *INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/* | 20 | |
| *Preparation for the classes, seminars, laboratories** | **10** | |
| *Preparation for the exam/test** | ***10*** | |
| *TOTAL NUMBER OF HOURS* | **50** | |
| ECTS credits for the course of study | **2** | |

***delete as appropriate***

***Accepted for execution*** *(date and legible signatures of the teachers running the course in the given academic year)*

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