



Course Regime

Course: **Basic Microbiology and Immunology**

Study Programme:

Medicine Dental Medicine

Year of the Course: 1 2 3 4 5 6

Semester:

Winter Summer

Course type:

COMPULSORY ELECTIVE

Number of ECTS credits: **6**

Lecturer(s): Prof. Alojz Ihan, MD, Assoc. Prof. Miroslav Petrovec, MD, Prof. Mario Poljak, MD, Prof. Manica Mueller Premru, MD, Prof. Katja Seme, MD, Prof. Eva Ružič Sabljic, MD, Assist. Prof. Tadeja Matos, MD, Assist. Prof. Mateja Pirš, MD.

Participating Organisational Units (Departments and Institutes): Chair of Microbiology and Immunology and Institute of Microbiology and Immunology, University of Ljubljana, Faculty of Medicine.

Parts (Modules) of the Course

- 1:
- 2:
- 3:
- 4:

Date of Issue: 10.10.2018

A. General part (*applies to compulsory and elective courses*)

1. Course objectives

Students are familiarized with basic characteristics of human microbiology, immunology and parasitology. In seminars they acquire additional knowledge on subjects of particular importance for the epidemiological characteristics of infectious diseases in Slovenia. In practical lessons they are acquainted with basic microbiological techniques, and get a sense of the duration and the significance of microbiological testing.

2. Comprehensive outline of the course organisation

All Basic Microbiology and Immunology course notifications for students of the Single-Cycle Master Study Programmes Medicine and Dental Medicine are posted in the web classroom.

The interpretation of the provisions of the Regulations for the Assessment of Knowledge and Skills for the Single-Cycle Master Study Programmes Medicine and Dental Medicine falls under the responsibility of the Dean of UL MF and the Vice-Dean for Study Affairs. Therefore in case of alleged inconsistencies between the Rules and the Study Regime for the Basic Microbiology and Immunology course for the Single-Cycle Master Study Programmes Medicine and Dental Medicine the Dean of UL MF and the Vice-Dean for Study Affairs are informed.

Lectures and seminars

Winter semester, Monday 13:00-15:00, the big lecture room at the Faculty of Medicine, Korytkova 2, and Tuesday 10:00-12:00, the lecture room at the Institute of Physiology, Zaloška 4.

The dates and titles of lectures are published in the timetable on the website <https://www.mf.uni-lj.si/> and in the web classroom of the Faculty of Medicine.

Lectures are an elective part of the course but are nevertheless strongly recommended to students as they cover over 95% of exam topics and examine points of emphasis, novelties and practical experiences which are not included in textbooks and are of great help during studies and later work.

Seminars are integrated in lectures.

Practical lessons

Winter semester, practice room at the Institute for Microbiology and Immunology UL FM, Zaloška 4, Tuesday 13:00-19:00 and Wednesday 16:00-19:00, 4 study hours per group. Practical lessons are conducted in groups (up to no more than 20 students) on Tuesday and Wednesday afternoon. There are 7 practical lessons in total. The aim of practical work is to familiarize students with practical procedures, methods and techniques used in a immunological and microbiological laboratory.

The schedule for practical work groups is posted at the beginning of each semester in the web classroom.

Practical lessons are a compulsory part of the course and a prerequisite for entering the final assessment. Changes between groups are not possible as a permanent sitting arrangement is necessary due to on-going assessment of knowledge using Turning Point. In case of illness or other legitimate reasons an appropriate justification must be submitted. Whenever possible, you can instead attend a practical lesson in another group.

3. Description of on-going assessment of knowledge and skills

Preliminary exams within lectures:

On-going assessment of knowledge before the lecture (entry exam), answering questions during the lecture and/or assessing knowledge after the lecture (exit exam).

With each weekly assessment of knowledge a student can receive **1 point at most**, no more than 14 points in total, which amounts to a maximum of a **7% bonus** in the final sum of partial grades (a practical exam, on-going preliminary exams during practical lessons and a written/oral exam). The bonus is taken into account only in case of a positive grade in the 1st trial of the current academic year.

Entry exam: questions can be accessed in the web classroom from 00:00 on Thursday before lectures until 13:00 on Monday. The entry exam is comprised of 5 questions a student has to answer within 10 minutes of its opening. The exam can be taken only once. The student sees the correct answers alongside results collected to date after the conclusion of all assessments of knowledge on the topic of the lecture.

Assessment of knowledge during lectures: students can use mobile phones, laptops/tablets or paper forms (papers in the lecture room) to vote on the questions the lecturer poses during the lecture itself. The lecturer posts questions in the web classroom, enables responses and sets the voting time. When voting closes the lecturer and the students can see correct answers and the percentage of successful solutions to individual questions. The voting during the lecture is technically accessible only to those present in the lecture room.

Assessment of knowledge after lectures: questions can be accessed in the web classroom after the lectures from 12:00 on Tuesday until 24:00 Friday of the same week. The preliminary exam is comprised of 5 questions a student has to answer within 10 minutes of their opening (as in the entry exam). The test can be taken only once.

The student can see the results of his participation in individual lecture segments in the web classroom following the conclusion of post-lecture question solving (on Friday from 24:00 onwards).

On-going assessment of knowledge within practical lessons:

Theoretical preliminary exams are conducted using the interactive system Turning Point after each practical lesson.

4. Required conditions for the final examination (Course Exam)

The conditions for entering the final assessment of knowledge are at least an 85.7% attendance at practical lessons (the student can miss only one practical lesson due to a justifiable reason), successful completion of on-going preliminary exams within practical lessons (theoretical preliminary exam) and successful completion of the practical exam.

Conditions for taking the exam from the 1st and 2nd year: a student who wants to take the Basic Microbiology and Immunology exam has had to pass the following exams in the 1st and 2nd year:
Biochemistry 1 and 2,
Anatomy 1 and 2,
Histology and Embryology,
Physiology,
Biophysics,

Cell Biology and
Emergency Medical Aid.

5. Final assessment and examination of knowledge and skills (Course Exam)

The course grade contains the knowledge assessment grade using the interactive system Turning Point – the theoretical preliminary exam (10%) and the practical preliminary exam grade (10%). Both parts of the preliminary exam have to be independently graded as positive. The final grade (80%) and the maximum 7% bonus in the final sum of partial grades (the practical exam, ongoing preliminary exams within practical lessons and the written/oral exam). The bonus is taken into account only at the 1st trial of the current academic year.

The exam consists of a written and an oral part. It covers topics published in the web classroom. In case of multiple trials a student is granted access to the oral exam in the 3rd trial regardless of the written exam grade.

In the written exam, which covers the exam topics, questions are organised into three thematic segments. A student who passes the written exam with a score of over 60% (Article 10*) and attains such a score in all three thematic segments is exempt from the oral exam. The written exam is comprised of 70 questions and is 70 minutes long.

Number of questions according to segments:

Bacteriology with Mycology	40% i.e. 28 questions
Virology	30% i.e. 21 questions
Immunology and Parasitology	30% i.e. 21 questions

Grading scale:

unsatisfactory (1 to 5):	0.00% to 59.99%
satisfactory (6):	60.00% to 67.99%
good (7):	68.00% to 75.99%
very good (8):	76.00% to 83.99%
very good (9):	84.00% to 91.99%
excellent (10):	92.00% to 100%

- A student attaining a positive grade in the written exam (60%) is regardless of the number of points attained signed up for a compulsory oral exam if the score attained in one of the aforementioned segments is lower than 60%.
- A student attaining an overall grade under 60% in the written exam has to retake the written exam.
- The same goes for students who object to the written exam grade.
- A student attaining a positive written exam grade can always take an oral exam at one's own request and notify the department secretariat within 24 hours after the announcement of results. For the calculation of the oral exam grade see the document Final Course Grade Calculation in the web classroom.
- The oral exam is comprised of 5 questions from the exam topics.

Exam applications and cancellations: submitted via the VIS information system, the exam application no later than 5 working days and its cancellation 2 working days before the exam date.

A committee exam is held in line with the Regulations for the Assessment of Knowledge and Skills for the Single-Cycle Master Study Programmes Medicine and Dental Medicine. The committee exam consists of a written and an oral part.

A student has the right to personally access one's written part of the exam in line with Article 39 of the Regulations.

6. Other provisions

Article 34 of the Regulations for the Assessment of Knowledge and Skills for the Single-Cycle Master Study Programmes Medicine and Dental Medicine applies.

People with special needs can have up to 50% more time for all forms of on-going and final assessment of knowledge.

7. Fundamental study material and Supplement reading

Gubina M, Ihan A (ed.). Medicinska bakteriologija z imunologijo in mikologijo. Ljubljana: Medicinski razgledi, 2002 (in the web classroom).

Koren S, Avšič-Županc T, Drinovec B, Marin J, Poljak M. Splošna medicinska virologija. Ljubljana: Medicinski razgledi, 1998 (in the web classroom).

Poljak M, Petrovec M (ed.). Medicinska virologija, Ljubljana: Medicinski razgledi, 2011.

Logar J. Parazitologija človeka. Radovljica: Didakta, 2010.

Kotnik V, Petrovec M, Ihan A, Glinšek Biškup U (ed.). Praktikum iz mikrobiologije in imunologije za študente medicine, Ljubljana: Katedra za mikrobiologijo in imunologijo, 2018.

Ihan A. Osnove medicinske imunologije, Ljubljana: Medicinski razgledi, in the press (in the web classroom).

8. Exam topics, clinical presentations and skills

The exam topics list is published in the web classroom.

9. Other information