



Course Regime

Course: Microbiology, Immunology and Oral Microbiology

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: 7

Lecturer(s): Assist. Prof. Mateja Pirš, MD, Assist. Prof. Tadeja Matos, MD, 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.

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

Parts (Modules) of the Course

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

Date of Issue:

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

1. Course objectives

Students cover materials of particular importance for clinical work in dental medicine pertaining to microbiology and immunology. By working independently in small groups and preparing materials the students learn to find connections between practice, interpretation and evaluation of laboratory reports and research results in connection to the clinical presentation in individual cases. The course is conducted in the form of lectures, student seminars and practical lessons.

2. Comprehensive outline of the course organisation

All Microbiology, Immunology and Oral Microbiology course notifications for students of the Single-Cycle Master Study Programme 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 Course Regime for the Microbiology, Immunology and Oral Microbiology for the Single-Cycle Master Study Programme Dental Medicine the Dean of UL MF and the Vice-Dean for Study Affairs are informed.

The Microbiology, Immunology and Oral Microbiology course is conducted in the form of lectures, seminars and practical lessons.

The course subject matter is fully covered in Slovenian textbooks: Medicinska bakteriologija z mikologijo, Parazitologija človeka, Splošna medicinska virologija, Medicinska virologija, Oralna bakteriologija and Praktikum za vaje, which also support the execution of the course.

Lectures and seminars

Tuesday 8:00-10:00 and Thursday 13:00-15:00, the small lecture room at the Faculty of Medicine, Korytkova 2.

The dates and titles of lectures and seminars are published in the timetable on the website <http://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. With regular class attendance (at least 70% attendance) and continuous participation in classes students can receive a bonus for the final grade which amounts to a maximum of a 7% in the final sum of partial grades (practical exam, Turning Point and written/oral exam).

Seminars are a compulsory part of the course. Individual seminar is prepared jointly by 2 or 3 students at most, all have to take part in writing the seminar and presenting it. A student has to attend at least 80% of the seminars to be allowed to enter the final examination, a strict record of attendance is going to be kept. The seminar grade contributes 10% to the final grade.

Students choose one of the proposed topics which are going to be presented in the first lecture. In addition to study literature, a review article can serve as the basis for the preparation of a seminar. They should send it to the mentor for review and if it is deemed suitable they can prepare a seminar and send it at least one week before its presentation to the mentor for review and discussion. The review article and the study literature are only the basis for the preparation of the seminar, in

addition to these it is compulsory to study the literature referenced in the article and include it in the written paper, at least 4 additional references (5 articles in total +/- a textbook). References also have to be appropriately quoted in the text of the seminar. The written form of the seminar is 5 to 12 pages long, written on a computer. Font size should be 12 pt and line spacing 1.5.

Contents of the seminar paper:

First page: title of the seminar paper, name and surname of the authors, mentor of the seminar, the date of first submission to the mentor, the date of return of the corrected seminar, date of the seminar presentation.

Second and further pages:

Abstract: in Slovenian and English (a very short summary of the work, 150-250 words).

Key words: in Slovenian and English (three to five words).

Literature: At least 5 references must be used, quotation style as in *Zdravniški vestnik* (https://vestnik.szdl.si/01_Citiranje_in_navajanje_virov_verzija_2017.pdf).

Students should also prepare 5 questions for discussion at the end of the seminar. They should send the questions to their mentor for review, together with the seminar, that is, at least one week before to the presentation. The oral presentation is 20 minutes long.

Practical lessons

Friday 9:00-15:00, 2 study hours per group, the practice room at the Institute for Microbiology and Immunology, University of Ljubljana, Faculty of Medicine, Zaloška 4.

Practical lessons are a compulsory part of the course and a prerequisite for entering the final assessment. There are 7 practical lessons in total. The schedule for practical work groups is posted at the beginning of each semester in the web classroom. Changes between groups are not possible as a permanent sitting arrangement is necessary due to on-going assessment of knowledge using Turning Point.

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

Seminars

The seminar grade is comprised of the grades for the written paper (50%) and the presentation (50%). Each student is graded separately.

Lectures

On-going assessment of knowledge is conducted 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, seminar, on-going preliminary exams during practical lessons and a written exam) in case of an at least 70% class attendance. The bonus is taken into account only in case of a positive grade in the 1st attempt of the current academic year.

The assessment of knowledge after lectures is conducted by voting on the questions the lecturer poses after the lecture using mobile phones, laptops/tablets or paper forms (papers in the lecture room). The lecturer posts 3-5 questions in the web classroom, the voting time is 15 minutes, 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. The voting during the lecture is technically accessible only to those present in the lecture room and is going to count as a bonus.

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 seminar, 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 Microbiology, Immunology and Oral Microbiology 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)

In an academic year there are 4 exam dates, **3 regular** and **1 extraordinary**. The **extraordinary** exam date in November/December is intended for students from previous generations who fulfilled all class requirements except the exam. Three regular exam dates are set in examination periods: two in the winter period and one in the autumn period.

The exam consists of a written and an oral part. It covers topics published in the web classroom. 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 above 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 50 questions and is 60 minutes long.

Number of questions according to segments:

Bacteriology with Mycology 40% i.e. 20 questions
Virology 30% i.e. 15 questions
Immunology and Parasitology 30% i.e. 15 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 positive written exam grade (60%) is a prerequisite for taking the oral exam. The oral exam is comprised of 5 questions from the exam topics. A student achieving a positive grade in the written exam (60%) in total and all three thematic segments is exempt from an compulsory oral exam. 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 written exam results; the examiner can confirm the final exam grade (theoretical and practical preliminary exam at practical lessons, the written test, bonus) or mark it higher or lower by one grade.

A student achieving 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 achieving a positive grade in the written exam (60%) and the score attained in two of the aforementioned three segments is lower than 60% fails the exam.

A student attaining an overall grade under 60% in the written exam fails the exam .

In line with Article 29 of the Regulations the oral part of the exam is taken in the third and further possible exam trials even if the written part of the exam was negative.

The **course grade** contains:

- the **practical lessons** knowledge assessment grade using the interactive system Turning Point - the theoretical preliminary exam (5%) and the practical preliminary exam grade (5%). Both parts of the preliminary exam have to be independently graded as positive.
- the **examination** grade (80%)
- the **seminar** grade (10%)
- bonus attained with on-going assessment of knowledge (maximum of 7%).

The bonus is taken into account only at the 1st trial of the current academic year. Both preliminary exams in practical lessons have to be independently graded as positive.

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

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.

A committee exam consisting of a written and oral part is held in line with Article 30 of the Regulations.

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.

Koren S, Avšič-Županc T, Drinovec B, Marin J, Poljak M. Splošna medicinska virologija. Ljubljana: Medicinski razgledi, 1998.

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

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

Seme K (ed.). Navodila za vaje in mikrobiologije in imunologije za študente stomatologije. Ljubljana: IMI MF UL, 2002; and practical lessons materials in the web classroom.

Dragaš AZ. Oralna bakteriologija, Ljubljana: DZS, 1996

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

8. Exam topics, clinical presentations and skills

Published in the web classroom of the Faculty of Medicine.

9. Other information