LABORATORY DIAGNOSTICS OF INFECTIOUS DISEASES

GENERAL INFORMATION	
Course teacher	Assoc. Prof. Ljiljana Perić, PhD
Associates	Asst. Prof. Dubravka Lišnjić, Md, PhD
	Asst. Prof. Domagoj Drenjančević, MD, PhD
	Arlen Antolović-Požgain, Md, PhD
Study programme	Graduate University Study of Medical Laboratory Diagnostics
Course status	elective
Year of study, semester	2nd year, 4th semester
ECTS credits	**3**
Form of teaching (number of classes)	Lectures: 25; Seminars: 15; Practicums: 5
Expected number of students attending the course	20

COURSE DESCRIPTION
Course objectives
Objective of this course is to expand students' knowledge on significance of good laboratory practice in clinical laboratories and use of diagnostic technologies in the process of diagnosing and treating infectious diseases.
Course entry requirements and competencies needed for the course
Completed 1st year courses at UGS of Medical Laboratory Diagnostics
Learning outcomes at study programme level
1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 2.6, 2.7, 3.1, 3.2
Expected learning outcomes at course level
After attending lectures, completing seminars and exercises, independent study and passing the exam, students will be able to:

1. critically evaluate the methods used in the laboratory diagnosis of infectious diseases.
2. evaluate the principles of antimicrobial therapy and the basic principles of preventing intrahospital infections.
3. apply the acquired knowledge and skills about laboratory methods and technologies in the diagnosis of infectious diseases.
4. choose an adequate laboratory method in the diagnosis of infectious diseases.
5. qualitatively and quantitatively analyze biological samples using appropriate pre-analytical, analytical and post-analytical methods.

Course content

Lectures: Basic terms in general infectology, most common infectious diseases and clinical syndromes they cause, diagnostic principles, rational antimicrobial therapies and prophylaxes for infectious and non-infectious diseases, infections in immunocompromised patients, hospital infections, laboratory diagnostics.

Seminars: Immune response to infection (innate and acquired). Mechanisms of cell and tissue damage caused by microorganisms. Acute infectious diarrhea and alimentary toxic infections. Postantimicrobial diarrhea. Infections of the urogenital system. Septococcal diseases (streptococcal and other angina, scarlet fever, erysipelas). Bacterial, chronic and viral meningitis and encephalitis. Infections caused by spirochetes and intracellular pathogens. Mycoses (invasive candidiasis, aspergillosis, mucormycosis, *Cryptococcus neoformans* infections, infections caused by *Pnumocystis jirovecii*). Diagnosis of herpesvirus and arbovirus infections. HIV and viral hepatitis.

Practicums: Laboratory diagnostics of infectious diseases.

Forms of teaching

Lectures; seminars; practicums; independent assignments.

Students' responsibilities

Attendance is obligatory throughout all course forms, and the student has to attend all the exams. Student absence of up to 30% is considered acceptable in each teaching form. Practical work and seminars that were not completed have to be taken in the form of colloquiums. The student has to attend all forms of exams required.

Monitoring students' work *(Connecting learning outcomes, teaching methods and evaluation)*

Teaching activity	ECTS	Learning outcome	Student activity	Evaluation methods	Grade points Min.	Grade points Max.
Attending classes	0.25	1-7	Attendance,	Attendance records	1	5
Seminars	0.5		Seminar paper	Writing and presenting seminar paper	8	20
Practicum	0.25		Practical work	Exercises in a clinical laboratory	2	5
Final exam	3	1-7	Studying for final exam	Written exam	40	70
Total	**4**				**50**	**100**

Evaluation of written part of final exam

Percentage of correct answers (%)	Grade points
96.00-100	70
90.00-95.99	60
80.00-89.99	50
70.00-79.99	45
60.00-69.99	40

Formulating the final grade:

Grade points achieved in classes are combined with points achieved in the final exam. Grading in the ECTS system is absolute grading and represents one's final achievement. Grades are numerically expressed as follows: A – excellent (5): 80-100 grade points; B – very good (4): 70-79.99 grade points; C – good (3): 60-69.99 grade points; D – sufficient (2): 50-59.99 grade points

Assigned reading (available in the library and in other media)

Title	Number of copies in the library	Availability in other media
Josip Begovac, Dragomir Božinović, Miroslav Lisić, Bruno Baršić, Slavko Schoenwald: Infektologija, Zagreb, Profil, 2006	10	

Further reading

Relevant scientific articles available online free of charge

Quality assurance methods that ensure the acquisition of exit competencies

Anonymous, quantitative, standardised students' opinion survey on the course and teacher's work, carried out by the Quality Assurance Office of the Faculty of Medicine in Osijek.