DISCIPLINE SHEET

1. Data about the programme

1.1.	"CAROL DAVILA" UNIVERSITY OF MEDICINE AND PHARMACY
1.2.	FACULTY OF MEDICINE
1.3.	DEPARTMENT: THE CLINICAL DEPARTMENT 2
1.4.	DISCIPLINE: INFECTIOUS DISEASEAS I - National Institute of Infectious Diseases „Prof. Dr. Matei Balș"
1.5.	DOMAIN OF STUDY: HEALTH – Sectorally regulated within the European Union
1.6.	STUDY CYCLE: LICENCE
1.7.	STUDY PROGRAME: MEDICINE – ENGLISH MODULE

2. Data about discipline

2.1.	Name of the discipline in the educational plan: Infectious Diseaseas I - National Institute of Infectious Diseases „Prof.Dr. Matei Balș"				
2.2.	Discipline code: M093_2				
2.3.	Discipline type (FD/SD/CD): SD				
2.4.	Discipline regimen (MD/OPD): MD				
2.5.	The holder of the course activities				
2.6.	The holder of the seminar activities :				
2.7. Year of study	VI	2.8. Semester	XI - XII	2.9. Type of evaluation (E/C)	E

3. Total estimated time (hours/semester of didactic activity an self preparation/study

I. Academic training (teaching, practical application, assessment)						
3.1. Nr hours / week	25	From which:	3.2. lecture	10	3.3. seminary/ laboratory	15
3.4. Total hours of educational plan	140	From which:	3.5. lecture	56	3.6. seminary/ laboratory	84
Evaluation (nr. of hours): 10						
II. Self preparation/study						
Time allocation						hours
Study of course materials, textbooks, books, study of the recommended minimal bibliography						15
Additional research in the library, research through the internet						5
Performing specific activities for preparing projects, laboratories, elaborating reviews or other tasks						
Specific preparation activities for projects, laboratory work, assignments, and reports						6
Tutoring						3
Other activities						1
3.7. Total individual study hours						30

3.9. Total hours per semester (3.4.+ 3.7.)	**180**
3.10. Number of credits	**6**

4. Preconditions (where applicable)

4.1. of curriculum	Fundamental Knowledge of Microbiology, Virology, Parasitology, Physiology, Pathophysiology, Immunology, Cell Biology, Internal Medicine
4.2. of competences	Not necessary.

5. Conditions (where applicable)

5.1. to conduct the lecture	Delivery of PowerPoint presentations, operation of video projectors and other IT audio-visual equipment. Venue: The Auditorium and additional lecture halls of the HIV/AIDS Academy – National Institute of Infectious Diseases "Prof. Dr. Matei Balș", Bucharest
5.2. to conduct the seminar / laboratory	Provision of the equipment necessary for conducting practical training sessions. Students are granted access to the clinical wards of Infectious Diseases (adults and children), Emergency Departments (adults and children), day-care units (adults and children), and clinical laboratories. Venue: National Institute of Infectious Diseases "Prof. Dr. Matei Balș", Bucharest

6. Learning outcomes

Knowledge	Skills	Responsibility and autonomy
• Acquisition of the necessary and sufficient knowledge so that, upon completion of the Infectious Diseases training program, students will be able to demonstrate competence in the following areas: • Etiology and the algorithm for positive and differential diagnosis in the main infectious diseases. • First-line etiological treatment and therapeutic alternatives for the	• By acquiring knowledge in infectious diseases, the student learns to identify objectives, available resources, work stages, conditions and deadlines for completion, as well as the risks associated with the care of a patient with infectious diseases. • Students acquire the concept of multidisciplinarity specific to Infectious Diseases, as well as techniques for interpersonal	• Integration of theoretical knowledge with the practical skills required for the diagnosis, treatment, and monitoring of patients with infectious diseases. • Ability to work within a multidisciplinary team and to acquire communication and teamwork skills, both in relation to colleagues and patients. • Development, coordination, and implementation of prevention and treatment strategies in infectious diseases. • Compliance with patient safety regulations. • Adherence to standard

main infectious diseases. • Classification, mechanisms of action, spectrum, indications, contraindications, adverse effects, drug interactions, dosage, and principles of rational use of antibiotics, antivirals, and antifungals. • Bacterial resistance to antibiotics and strategies for preventing its spread. • The context of the occurrence of an infectious disease at both the individual and community levels, as well as the selection and application of appropriate non-specific and specific prophylactic measures. • Vaccines included in the National Vaccination Program for children and adults, as well as optional vaccines. • Clinical case presentation techniques in infectious diseases, literature review, and preparation of a current scientific presentation related to aspects of infectious pathology. • The ability to initiate and conduct studies on clinical and evolutionary particularities encountered in infectious diseases, as well as the acquisition of skills for presenting	communication and effective teamwork. • Knowledge and application of measures for the prevention and control of communicable diseases, with emphasis on the importance of lifelong vaccination. • Acquisition by students of the rules of medical deontology. • Practice in the efficient use of informational resources and communication / professional training tools (portals, internet, specialized software applications, databases, online courses), both in Romanian and in an international language.	precautions and proper hand hygiene.

the obtained results.		

7. Course objectives (aligned with the learning outcomes)

7.1. General objective	Acquisition of knowledge enabling accurate diagnosis, treatment, and prevention of the main infectious diseases.
7.2. Specific objective	Acquiring the knowledge that will allow: 1. Accurate and prompt diagnosis of major communicable infectious diseases: conducting epidemiological anamnesis; recognizing specific clinical signs; identifying and recommending appropriate etiological diagnostic tests and additional paraclinical investigations when required; and correctly interpreting their results. 2. Accurate diagnosis of the main infectious syndromes and selection of appropriate treatment, according to the potential etiological agents involved. 3. Timely and correct selection of first-line antibiotic therapy. 4. Rational and judicious use of antibiotics, antivirals, and antifungals in current therapeutic practice, with emphasis on avoiding the emergence of resistant strains. 5. Knowledge of the main preventive measures against the transmission of infectious diseases, including non-specific measures, vaccines, immunoglobulins, serum therapy, and antibiotic prophylaxis. 6. Accurate assessment of epidemiological risk and adherence to epidemiological protocols concerning patient pathways within the hospital.

8. Contents

8.1. Lecture: 28 lectures of 2 hours each = 56 hours	**Teaching methods**	**Observations**
Course 1. Etiology of infectious diseases. Classification and characteristics of pathogens involved in major infectious diseases: bacteria, viruses, fungi, parasites, unconventional infectious agents (prions). Human commensal flora. (2 hours)	Interactive exposure of the material according to the analytical program. Multimedia means, powerpoint presentations and didactic films will be used (regarding mechanisms of action of some anti-infective agents; mechanisms of microbial resistance, HIV and hepatitis viruses replication cycle)	
Course 2. Definition and classification of infections. Pathogenesis of infectious diseases. Mechanisms of anti-infective defense: non-specific means of defense (anatomical barriers, inflammatory reaction, phagocytosis, non-specific plasma and tissue factors). Specific means of defense (humoral and cellular immunity). Innate and acquired immune deficits. (2 hours)		
Course 3. Diagnosis of infectious diseases - epidemiological, clinical and laboratory diagnosis (hematological, biochemical, bacteriological,		

virological, parasitological, mycological, serological, molecular biology). (2 hours)		
Course 4. Antibacterial therapy (antibiotic therapy): general consideration, antibacterial activity (bactericidal and bacteriostatic effect, time-dependent antibiotics, concentration-dependent antibiotics, in vitro evaluation of antibacterial activity - MIC, MBC), principles of pharmacokinetics and pharmacodynamics, mechanisms of action, mechanisms of bacterial resistance to antibiotics, rules and principles of judicious antibiotic therapy. (2 hours)		
Course 5. Description of the main classes of antibiotics (Beta-lactams; Aminoglycosides; Glycopeptides; Macrolides; Lincosamides and Ketolides; Cyclines; Phenicols; Rifamycins; Oxazolidinones; Fluoroquinolones; Polymyxins; Sulfamides and Trimethoprim; Imidazoles; Other classes of antibiotics), antibacterial spectrum, indications, contraindications, adverse effects, drug interactions, dosage, mechanisms of bacterial resistance. (2 hours)		
Course 6. Antiviral, antifungal, antiparasitic therapy: description of the main classes of antiviral, antifungal and antiparasitic agents (class representatives, mechanism of action, spectrum of activity, indications, contraindications, adverse effects, drug interactions, dosage, resistance mechanisms). (2 hours)		
Course 7. Non-etiological therapies in infectious diseases: antipyretic therapy, anti-inflammatory therapy (NSAIDs and corticotherapy), immunomodulatory therapy. **Fever of unknown origin:** etiology (infectious and non-infectious causes), algorithms for positive and differential diagnosis, therapeutic approach. (2 hours)		
Course 8. Vaccines / Immunoglobulins / Heterologous sera. (2 hours)		
Course 9. Acute inflammatory response syndrome, sepsis and septic shock: definitions, epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and non-specific prophylaxis. **Bacterial endocarditis.** (2 hours)		
Course 10. Acute febrile eruptive infectious diseases: measles, rubella, chickenpox, shingles (definition, epidemiology, pathogenesis, etiology,		

clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and non-specific prophylaxis). (2 hours)		
Course 11. Acute pharyngitis - Angina. Scarlet fever. Diphtheria. Infectious mononucleosis (definition, epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and non-specific prophylaxis). (2 hours)		
Course 12. Flu. Acute upper respiratory tract infections: definition, epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and non-specific prophylaxis. (2 hours)		
Course 13. Emerging infections - SARS CoV2 infection: definitions, etiology, epidemiology, clinical picture, laboratory diagnosis, evolution, prognosis, complications, treatment, specific and non-specific prophylaxis. (2 hours)		
Course 14. Acute infections of the lower respiratory tract: bronchitis and acute exacerbations of COPD; acute pneumonia, pleural empyema. (definition, epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and nonspecific prophylaxis). (2 hours)		
Course 15. Other infections with aerogenic transmission: whooping cough, mumps: definition, epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and non-specific prophylaxis. (2 hours)		
Course 16. Acute meningitis and encephalitis: definition, epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and non-specific prophylaxis. (2 hours)		
Course 17. Viral meningitis. Bacterial meningitis. TB meningitis. (2 hours)		

Course 18. Acute infectious diseases with neurological damage (poliomyelitis, botulism, tetanus): definition, epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and nonspecific prophylaxis. (2 hours)		
Course 19. HIV/AIDS infection: definition, epidemiology, pathogenesis, clinical manifestations, classification, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and nonspecific prophylaxis. (2 hours)		
Course 20. Acute gastrointestinal infections: definition, etiology, pathogenesis and ethiopathogenic classification (inflammatory and non-inflammatory). **Food poisoning**. (2 hours)		
Course 21. Dysentery, cholera, post-antibiotic diarrhea, diarrhea with Clostridium Difficile, Typhoid fever. (definition, epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and nonspecific prophylaxis). (2 hours)		
Course 22. Acute viral hepatitis with hepatitis A and E viruses: epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and nonspecific prophylaxis. (2 hours)		
Course 23. Acute viral hepatitis with hepatitis B,C,D viruses: epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and nonspecific prophylaxis. (2 hours)		
Course 24. Zoonoses - Leptospirosis, Anthrax, Rabies., **- Lyme disease, Rickettsiosis**. (definition, epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and nonspecific prophylaxis). (2 hours)		
Course 25. Invasive fungal infections, IFI, (definition, epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and		

nonspecific prophylaxis).(2 hours)		
Course 26. Infections in immunodepressed. Nosocomial infections. (definition, epidemiology, pathogenesis, etiology, clinical manifestations, laboratory diagnosis, positive and differential diagnosis, evolution, prognosis, complications, treatment, specific and nonspecific prophylaxis). (2 hours).		
Course 27. Travel-related infectious diseases: definition, epidemiology, diagnosis, treatment, means of specific and nonspecific prophylaxis. (2 hours).		
Course 28. The importance and role of intensive care in the management of severe infectious diseases, in the context of epidemics and pandemics with respiratory tropism viruses. The specialists and primary intensive care physicians from the Intensive Care Unit of the Infectious Diseases Hospital will be involved in the teaching activity. (2 hours).		

Recent Bibliography

1. *The common course taught at the location of the discipline (word and ppt format).*
2. *Adrian Streinu-Cercel, Victoria Arama, Petre Iacob Calistru (under the editorial board), Infectious Diseases – Course for students and resident doctors.*
   - *Volume 1, "Carol Davila" University Publishing House 2019. ISBN 978-606-011-063-7 ; 978-606-011-081-1.*
   - *Volume 2, "Carol Davila" University Publishing House 2021. ISBN 978-606-011-063-7 ; 978-606-011-082-8.*
3. *Emanoil Ceausu (under the editorial board), Infectious Diseases Handbook.*
   - *vol.1, Medical Publishing House, Bucharest, 2018. ISBN 978-973-39-0847-0*
   - *vol.2,Medical Publishing House, Bucharest, 2020. ISBN 978-973-39-0877-7*
   - *vol.3,Medical Publishing House, Bucharest, 2024. ISBN 978-973-39-0948-4*
4. *Adam Feather, David Randall, Mona Waterhouse: Kumar și Clark Medicina Clinica. Leonard Azamfirei, Anca Dana Buzoianu, Dan Ionuț Gheonea, Ediția a 10-a, Editura Hipocrate, București, 2021 (a se vedea și ERATA)*
5. *Peter F. Lawrence – Chirurgie generală și specialități chirurgicale. Octavian Crețu, Viorel Jinga, Viorel Scripcariu, Ediția a 6-a, Editura Hipocrate, București, 2021 (a se vedea și ERATA)*
6. *E. Pilly, ECN Pilly: Maladies Infectieuses et tropicales, 28e edition, 2025*
7. *Principles and Practice of Infectious Diseases John E. Bennett, Raphael Dolin, Martin J. Blaser, Mandell, Douglas and Bennett'S 9th Edition, 2019, Elsevier Saunders.*

8.2. Laboratory/ practical lesson : 28 PR of 3 hours = 84 hours	**Teaching methods**	**Observations**
CR 1. Presentation of universal precautions for the prophylaxis of nosocomial infections transmitted through the blood and other biological fluids from patients. Presentation of nonspecific measures to prevent the transmission of infectious diseases by aerogenic and digestive way.	Clinical education at the bedside of the sick person, under the guidance of the group assistant. During the internship sessions, the direct participation of students in the anamnesis and the clinical examination of patients, the	

Presentation of the rules of occupational safety and health during the infectious diseases training course. Presentation of the rules for the prevention and combating of fires at work (PSI) and the rules to be observed in case of emergency situations (earthquakes, etc.). (3 hours)	interpretation of laboratory tests in order to establish the positive diagnosis and the adequate treatment of the main infectious diseases are aimed at, in order to reach: - differentiation between normal and pathological conditions related to infectious disease - recognition of symptoms/signs associated with infectious diseases - understanding how and stages of diagnosis in infectious diseases - knowledge of how to properly use antibiotics, antivirals and antifungals in the management of infectious diseases. - knowledge of vaccines from the National Vaccination Program and optional vaccines	
CR 2. Visiting the Bacteriology Laboratory (3 hours).		
CR 3. Visiting the Virology Laboratory (3 hours).		
CR 4. Visiting the Molecular Genetics Laboratory (3 hours).		
CR 5. Presentations of clinical cases at the patient's bedside, from the topics of the courses (3 hours)		
CR 6. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 7. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 8. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 9. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 10. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3		

hours)		
CR 11. Presentations of clinical cases at the patient's bedside, from the topics of the courses (3 hours)		
CR 12. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 13. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 14. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 15. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
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CR 18. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 19. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 20. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 21. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 22. Presentations of clinical cases at the patient's bedside, from the topics of the courses (3 hours)		
CR 23. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 24. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 25. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 26. Presentations of clinical cases at the patient's bedside, from the topic of the courses (3 hours)		
CR 27. Presentations of clinical cases of severe infectious diseases in the ICU section of the		

Infectious Diseases Hospital, discussing their multidisciplinary management (3 hours). The specialists and primary intensive care physicians from the Intensive Care Unit of the Infectious Diseases Hospital will be involved in the teaching activity.		
CR 28. Discussing protocols and guidelines for diagnosis, treatment and prophylaxis in severe infections and in the context of epidemics and pandemics with respiratory tropism viruses (influenza, SARSCov2, etc.) (3 hours)		

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1. *The common course taught at the location of the discipline (word and ppt format).*
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9. Evaluation

Activity type	9.1. Evaluation criteria	9.2. Evaluation methods	9.3. Percentage in the final grade
9.4. Lecture	Attendance at the course Final theoretical written exam	**Final written multiple-choice test**, consisting of 25 single-answer questions and 30 multiple-answer questions, plus 3	60%

	Two written papers or oral colloquia - with the group assistant, during the practical lessons	questions with narrative answers.. (Duration: 90 minutes) - accounting for 80% of the final course grade. Written paper no. 1, with 10 questions, or oral colloquium with the group assistant, during the 3rd week of the practical lessons – accounting for 10% of the final course grade. Written paper no. 2, with 10 questions, or oral colloquium with the group assistant, during the 5th week of the practical lessons – accounting for 10% of the final course grade.	
9.5. Seminary / practical activity	Presence at PR Weekly clinical case presentations by each group of students Practical exam	**Practical Examination** The practical examination will be conducted under the supervision of the group assistant. Each student will receive a real clinical case by the group assistant, involving a patient hospitalized in the clinic, in accordance with the topics covered in the course. The student will be required to take the patient's medical history and perform a clinical examination, then request from the group assistant the relevant laboratory test results and/or investigation results needed to establish an accurate	40%

		diagnosis and recommend appropriate treatment. The student will then formulate a positive and differential diagnosis and will propose a therapeutic plan. The student will present the clinical case in front of the group assistant and students, and will justify the diagnosis established and the proposed treatment. The group assistant will mark the student with a grade from 1 to 10.	
9.5.1. Individual project (if applicable	-	-	-
9.6. Minimum performance standard			
• Attendance of more than 75% of lectures is required. • Attendance of at least 90% of practical sessions is mandatory. Practical sessions missed for justified reasons may be rescheduled and completed before the end of the training period, during on-call shifts and consultations. • The minimum passing grade is 5, both for the practical examination and for the final written test. Only students who have obtained a minimum grade of 5 in the practical examination will be eligible to take the final written course examination. • Results will be posted at the Department's office within 7 working days from the date of the examination.			

Date of completion : 29.09.2026 **Signature of the course holder** **Signature of the laboratory holder**

Head of Discipline

Signature of the Department Director
Prof. Dr. Adrian Streinu-Cercel

Date of approval by the Department Council: