

TEACHING TOPICS

1. Date despre program

1.1 University	"VICTOR BABES" UNIVERSITY OF MEDICIN AND PHARMACY TIMISO
1.2 Faculty	GENERAL MEDICINE ENGLISH SECTION
1.3 Departament	XIV Microbiology
1.4 Study domain ¹⁾	Bachelor
1.5 Study cycle ²⁾	Bachelor
1.6 Study program/ Calification	Medicine

2. Date despre disciplină

2.1. Discipline name	Bacteriology-Virusology							
2.2 Course lecturer	Horhat Florin-George Bagiu Iulia-Cristina							
2.3 Laboratory lecturer	Bagiu Iulia-Cristina Vulcanescu Dan-Dumitru							
2.4 Study year	III	2.5 Semester	I	2.6 Evaluation type	Colloquium	2.7 Discipline regime	Content ³⁾	DF
							Mandatory ³⁾	DO

3. Total time (hours of didactic activity per semester)

3.1 Number of hours per week	2	3.2 course	1	3.3 laboratory	1
3.4 Total hours of the curriculum	28 (2x14 pt. sem.I)	3.5 course	14	3.6 laboratory	14
Distribution of time					hours
Study after manual, course support, bibliography and notes					10
Additional documentatin in the library, on the specialized electronic platforms and on the field					12
Training seminars/laboratories/projects, themes, papers,portofolios and essays					8
Tutoring					
Examination					2
Other activities					
3.7 Individual study hours	34				
3.8 Total hours per semester	50 (2 credits x 25 ore/credit)				
3.9 Credit number ⁵⁾	2				

4. Preconditions (where applicable)

4.1 curriculum	no
4.2 skills	no

5. Conditions (where applicable)

5.1 course progress	<ul style="list-style-type: none"> Mobile phones will be closed during classes, telephone conversations are not tolerated during the course, nor do students leaving the classroom for personal phone calls; The students' tardiness at the course will not be tolerated as it proves to be disruptive to the educational process; Attendance at the course is mandatory, a maximum of 50% of the total absences being accepted. Oral lecture based on the presentation of the didactic material in the form of slides Explanations and discussions to questions at the end of each course based on the material presented
---------------------	---

6. Specific skills accumulated

Professional skills	<ol style="list-style-type: none"> 1. The ability of analytical thinking in interpreting the microbiological diagnosis 2. The ability to apply the microbiological diagnostic algorithm to bacteria, fungi, viruses of importance in human pathology 3. Correlation of the knowledge of microbiology, virusology, mycology and descriptive parasitology with those of clinical microbiology. 4. The ability to differentiate microbial infections 5. Correlation of the elements of microbiology with some notions of biochemistry, hematology, immunology and epidemiology of infectious diseases. 6. Correlation of the elements of clinical symptomatology with the site of an infection in order to guide the laboratory diagnosis and the sampling of biological products 7. Acquisition by the student of the theoretical and practical notions related to the diagnosis and treatment of infectious diseases. 8. Knowledge of the treatment principles in bacterial, viral, fungal and parasitic infections (antibacterial, antiviral, antifungal and antiparasitic preparations depending on the mechanism of action)
Transversal skills	<ol style="list-style-type: none"> 1. The concern for professional development by training the critical thinking skills demonstrated through active participation in the course and laboratory / seminar / project; 2. Activities related to the theoretical and practical training for acquiring responsible, ethical behavior and appropriate medical language. 3. Involvement in scientific research activities by participating in the elaboration of reports, studies, specialized articles; 4. Correlation of the knowledge of descriptive microbiology with those of clinical microbiology, in order to describe verbal, clear and concise descriptions of the concepts related to infectious diseases. 5. Efficient use of information sources and resources for communication and assisted vocational training (Internet portals, specialized software applications, databases, online courses, etc.) in both Romanian and in a circulation language International;

7. Objectives of the discipline (based on the specific competences accumulated)

7.1 The general objectives of the discipline	- presentation and explanation of the etiology and pathogenesis of infectious diseases, the structure of microorganisms (bacteria, viruses, fungi, parasites), the concepts of physiology and microbial genetics, the interrelation of the microorganism - human host, the mechanisms of anti-infectious defense (non-specific and specific) as well as the pathology produced by infectious agents;
7.2 Specific objectives	<ul style="list-style-type: none"> - Knowledge of the infections produced by the main microorganisms involved in human pathology: bacteria, viruses, fungi and parasites - The student will have to know the basic principles of microbiological diagnosis as well as notions regarding the treatment of infections produced by the most important microorganisms in human pathology.

8. Content

8.1 Course	Teaching methods	Hours/week	Observation
1. General knowledge of the etiology of infectious diseases: bacteria, viruses, fungi and parasites	Lectures are exposed as power point slides. INTERACTIVE PRESENTATION	1	<ul style="list-style-type: none"> - Oral lecture supported by structured, interactive Powerpoint presentations, accompanied by rich and suggestive iconography, - The material taught is reviewed and supplemented with the last-minute information relevant to the specialization. - Each course presents the educational objectives at the beginning and ends with a summary of the concepts presented.
2. Concepts regarding the infectious defense.		1	
3. Notions regarding macro- and micro-organism conflict		1	
4. Treatment and prophylaxis of infectious diseases.		1	
5. Upper respiratory tract infections and connected cavities		1	
6. Lower respiratory tract infections		1	
7. Urinary tract infections		1	
8. Sexually transmitted infections		1	
9. Infections of the skin, soft tissues, joint muscles and bones		1	
10. Central nervous system infections		1	
11. Infections of the gastrointestinal tract		1	
12. Blood infections		1	

13. Infections at the compromised host. Nosocomial infections		1	
14. Interdisciplinary approach to biochemical, hematological, microbiological and immunological parameters in the context of interpreting a laboratory analysis report		1	
References Mandatory references: 1. Microbiologie Clinică, Dugășescu Dorina, ISBN 978-606-569-589-4, editura Eurostampa, Timișoara 2013, Optional references: 2. Tratat de microbiologie clinică, ediția a III-a, Buiuc D., Neguț M. și colab ISBN 13-973-39-0593-3, Ed. Medicală București, 2009. 3. Schaechter's Mechanisms of Microbial Disease, N. Cary Engleberg, Moselio Schaechter, Victor J. DiRita, Victor J. DiRita, Terence S. Dermody, Terence S. Dermody, 2006, Publisher: Lippincott Williams & Wilkins, ISBN-10: 0781753422, ISBN-13: 9780781753425. 5. Principles and Practice of Infectious diseases, G.L. Mandell, 8th edition, 2015 6. Review of Medical Microbiology, Patrick R. Murray, Ph.D., Ken S. Rosenthal, Ken Rosenthal, 2005, Publisher: Mosby Inc., ISBN-10: 0323033253, ISBN-13: 9780323033251. 7. Mim's Medical Microbiology, Cedric A. Mims, 2013, Publisher: Mosby Inc. ISBN-978-0-7234-3601-0, ISBN-9780723436010.			
8.2 Seminars/ Laboratory/practical activity/ projects	Teaching-learning, methods	Number of hours	Notification
1. General principles of microbiological diagnosis and the importance of the quality of clinical isolate collection.	Preligation, Debate, Case Presentations	1	Oral lecture delivered using Powerpoint presentations sent to students in electronic format Presentation of investigation methods used in medical microbiology in the form of schemes, diagnostic algorithms to guide the thinking of the future medical practitioner towards the targeted investigations necessary for the correct establishment of the diagnosis. Verification of the acquisition of the main knowledge taught through multiple-choice questions at the end of the lab.
2 Screening methods for patients with multidrug-resistant bac		1	
3. Microbiological control of the environment		1	
4. Diagnosis of upper respiratory tract infections (URT connected cavities		1	
5. Diagnosis of lower respiratory tract infections (LRTI)		1	
6. Diagnosis of urinary tract infections		1	
7. Diagnosis of sexually transmitted infections		1	
8. Diagnosis of skin, soft tissue, muscle, joint and bone infections		1	
9. Diagnosis of central nervous system infections		1	
10. Diagnosis of gastrointestinal tract infections		1	
11. Diagnosis of eye and related cavity infections		1	
12. Diagnosis of blood infections		1	
13. Diagnosis of obstetric and perinatal infections		1	
14. Diagnosis of immunocompromised host infections and nosocomial infections		1	
Mandatory references: 1. General microbiology, Lecture notes for internal use for medicine students, Monica Licker, Roxana Moldovan, et al, Lito UMF, Timișoara, 2014 2. Schaechter's Mechanisms of Microbial Disease, N. Cary Engleberg, Moselio Schaechter, Victor J. DiRita, Victor J. DiRita, Terence S. Dermody, Terence S. Dermody, 2013, 5th Edition, Publisher: Lippincott Williams & Wilkins, ISBN- 978-0-7817-8744-4 3. Review of Medical Microbiology, Patrick R. Murray, Ph.D., Ken S. Rosenthal, Ken Rosenthal, 2005, Publisher: Mosby Inc., ISBN-10: 0323033253. ISBN-13: 9780323033251.			

4. Medical Microbiology, Cedric A. Mims, 2012, Publisher: Mosby Inc, ISBN-10: 0323035752, ISBN-13: 9780323035750.
5. Principles and practice of infectious diseases, vol 2, Gerald L. Mandell, John E. Bennett, Raphael Dolin, Seventh edition, Churchill livingstone Elsevier, 2010, ISBN 978-0-430-6839-3
6. Microbiologie Generala-Indreptar de lucrari practice, Licker Monica si colab, carte Electronica, 2019, ISBN13 978-606-8456-43-0
- Marsh, Michael V. Martin, fifth edition, 2009, Churchill Livingstone Elsevier, ISBN:0443101442
7. Clinical Microbiology-lecture notes for internal use for medicine students, Prof. Licker M, et all, Lito UMF 2017

Optional references:

1. CURS DE MICROBIOLOGIE SPECIALĂ VOL. I BACTERIOLOGIE Pentru studenții Facultății de Medicină, Timisoara 2020, Carte electronica, ISBN general: 978-606-786-177-8
2. CURS DE MICROBIOLOGIE SPECIALĂ VOL. II VIRUSOLOGIE, MICOLOGIE Pentru studenții Facultății de Medicină Timisoara 2020, ISBN general: 978-606-786-179-2

9. Corroborating the contents of the discipline with the expectations of the representatives of the epistemic communities, professional associations and representatives employers in the field related to the program

- Acquire an appropriate language that reflects the proper knowledge of the medical notions related to infectious diseases caused by bacteria, viruses, fungi and parasites
- The correct acquisition of some notions that reflect the principles of microbiological diagnosis and treatment in bacterial, viral, fungal and parasitic diseases.

10. Evaluation

Activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 % of the final grade
10.4 Course and practical work	<p>Knowledge for grade 5:</p> <ul style="list-style-type: none"> - paper having as its theme the correct treatment of a percentage of 50% of the material presented in the course and lp <p>Knowledge for grade 10:</p> <ul style="list-style-type: none"> - paper having as its theme the correct treatment of a percentage of 90% of the material presented in the course and lab 	<p>Continuous assessment: (treating some minimal notions from the course and lab material)</p> <p>Final assessment: detailed exemplification of concepts related to the microbiological approach to infectious diseases</p>	

10.5 Minimum performance standard:

1. To know the belonging of the entities of bacterial, viral, fungal and parasitic etiology (correct name and taxonomic classification)
2. Knowledge of minimal concepts related to the pathogenesis and epidemiology of infections: the gateway of the infectious agent, the primary, secondary localization, the complications of infections and the elimination of agents from the host organism
3. The correlation of the elements of microbiology with some notions of biochemistry, hematology, immunology and epidemiology of infectious diseases.
4. Correlation of the elements of clinical symptomatology with the site of an infection in order to guide the laboratory diagnosis and the sampling of biological products
5. Interpretation of a laboratory analysis bulletin by correlating the parameters of the Departments: Biochemistry, Immunology and Microbiology in the case of suspected infectious disease.
6. Correct interpretation of sensitivity tests for anti-infectious chemotherapies

Date	Course lecturer signature	Laboratory lecturer signature
25.03.2025	Professor Dr.Horhat Florin-George	1. Lecturer Bagiu Iulia-Cristina 2.Asist professor Vulcanescu Dan-Dumitru
Discipline coordinator signature		
Prof. Univ. Licker Monica		

Department approval date	Department director signature
25.03.2025	Prof. Univ. Licker Monica

Notă:

- 1) Domeniul de studii - *se alege una din variantele:* Licență/ Masterat/ Doctorat (**se completează conform cu Nomenclatorul domeniilor și al specializărilor/ programelor de studii universitare în vigoare**) ;
- 2) Ciclul de studii - *se alege una din variantele:* Licență/ Master/ Doctorat;
- 3) Regimul disciplinei (conținut) - *se alege una din variantele:* **DF** (disciplină fundamentală)/ **DD** (disciplină din domeniu)/ **DS** (disciplină de specialitate)/ **DC** (disciplină complementară) - *pentru nivelul de licență*; **DAP** (disciplină de aprofundare)/ **DSI** (disciplină de sinteză)/ **DCA** (disciplină de cunoaștere avansată) - *pentru nivelul de masterat*;
- 4) Regimul disciplinei (obligativitate) - *se alege una din variantele:* **DI** (disciplină obligatorie)/ **DO** (disciplină opțională)/ **DFac** (disciplină facultativă);
- 5) Un credit este echivalent cu 25 – 30 de ore de studiu (activități didactice și studiu individual).
- 6) Pentru specializările și/sau disciplinele a căror tematică se regăsește în bibliografia de rezidențiat, aceasta devine obligatorie.