



COURSE UNIT (MODULE) DESCRIPTION

Course unit (module) title	Code
INFECTIOUS DISEASES AND DERMATOVENEROLOGY	

Lecturer(s)	Department(s) where the course unit (module) is delivered
Coordinators: assoc. prof. Daiva Radzišauskienė lecturer Karolina Žvirblytė Skrebutėnienė Other(s): prof. Ligita Jančorienė prof. Raimonda Matulionytė prof. Matilda Bylaitė Bučinskienė assoc. prof. Jūratė Grigaitienė assoc. prof. Rūta Gancevičienė assist. Birutė Zablockienė assist. Rolanda Valinteliene assistant lecture Elžbieta Matulytė assistant lecture Inga Kisieliene assistant lecture Tadas Raudonis lecturer Mindaugas Paulauskas lecturer Audronė Marcinkutė lecturer Linas Svetikas lecturer Oleg Aliancevič lecturer Monika Macejevskā	Clinic of Infectious Diseases and Dermatovenereology, Institute of Clinical Medicine, Medical Faculty, Vilnius University, Santariskiu street 14, 08117 Vilnius, Lithuania

Study cycle	Type of the course unit (module)
Cycle (integrated studies)	Compulsory

Mode of delivery	Period when the course unit (module) is delivered	Language(s) of instruction
Face-to-face lectures, seminars, workshops	2 nd Year, VI semester	English

Requirements for students	
Prerequisites: A student must have completed the following courses: Human anatomy, Physiology, Microbiology, Pharmacology, Pathologic anatomy, Introduction to internal diseases	Additional requirements (if any): N/A

Course (module) volume in credits	Total student's workload	Contact hours	Self-study hours
5 credits Infec+dermo	134 Infec+dermo	67 Infec+dermo	67 Infec+dermo
2,5 - credits infec	67- infec	34- infec	33- infec
2,5 – credits dermo	67- dermo	33- dermo	34- dermo

Purpose of the course unit (module): programme competences to be developed		
<p>To gain knowledge about the pathology of mouth and tongue mucosa in patients with skin and internal diseases, sexually transmitted infections, and isolated changes of oral mucosa. To be able to evaluate the condition of the patient, to select necessary tests for correct diagnosis, to be able to interpret them, to formulate a diagnosis and set treatment and prevention plans, learn how to provide the necessary assistance.</p> <p>To present the background of basic principles and methods of epidemiology, including of basic concepts of infectious, skin diseases and sexually transmitted infections epidemiology. This course is designed to teach students on the pathogenesis, clinical features, diagnostics, differential diagnostics and treatment of infectious skin diseases and sexually transmitted infections. At the end of this course students should be able to collect the relevant information about the history and the course of the disease, the epidemiological data, be able to perform the physical examination, to identify the symptoms and signs of the disease, to collect and process specimen for the identification of infectious agents, to evaluate the results of laboratory tests and to perform the instrumental procedures, to get samples for the microbiological cultures, to evaluate the indications for the hospitalization, to know the principles of diagnostics and differential diagnostics of infectious, skin diseases and sexually transmitted infections, to initiate the optimal treatment and to provide the appropriate prophylactic measures.</p>		
Learning outcomes of the course unit (module)	Teaching and learning methods	Assessment methods
General competences		
After the successful completion of this module the students will be able:		
To act honestly in all professional activities and meet the standards of ethical obligations, to be empathetic, to think critically and self-critically, be creative, proactive, to achieve the goals, to communicate with people in the society.	Workshops in different departments and laboratory of the Centre of infectious diseases and in different consulting rooms in Dermatovenereology Inpatient and Outpatient Departments and Day Care Centre.	Continued evaluation of practical skills in the infectious diseases department wards, emergency department, clinical diagnostic laboratory and in different consulting rooms in Dermatovenereology Inpatient and Outpatient Departments and Day Care Centre.
To evaluate the limits of the competence and, if necessary, to seek for a help, to solve problems and make decisions, communicate and be team orientated and work in a team with the specialists of other medical specialties and experts in other sciences.	Workshops in different departments and laboratory of the Centre of infectious diseases and in different consulting rooms in Dermatovenereology Inpatient and Outpatient Departments and Day Care Centre.	Continued evaluation of practical skills in the infectious diseases department wards, emergency department, clinical diagnostic laboratory and in different consulting rooms in Dermatovenereology Inpatient and Outpatient Departments and Day Care Centre.
Subject competences		
After the successful completion of this module the students will be able:		
To examine the patient with suspected infectious, skin disease and sexually transmitted infection: to collect the data about the medical history (disease and life history), to perform patient's physical examination, to assess the disease severity, to establish the primary diagnosis, to differentiate and rule out	Workshops in different departments and laboratory of the Centre of infectious diseases and in different consulting rooms in Dermatovenereology Inpatient and Outpatient	Continued evaluation of practical skills in the Centre of infectious diseases wards, emergency department, clinical diagnostic laboratory and in different consulting rooms in

<p>other diseases and justify and compose a plan of diagnostic examinations and treatment. To inform the patient about his condition assessment, diagnosis, prevention measures, to support the patient and obtain the patient's confidence.</p>	<p>Departments and Day Care Centre. Analysis of clinical cases and clinical situations during the seminars.</p>	<p>Dermatovenereology Inpatient and Outpatient Departments and Day Care Centre. Evaluation of the analysis of clinical cases and clinical situations during the seminars. At the end of the course - written exam.</p>
<p>Obtain samples for microbiological tests, to know the methods of laboratory investigations, their characteristics, advantages and disadvantages of a different infectious diseases, to learn the interpretation of test results, to know the basics of antimicrobial resistance, evaluate the antimicrobial resistance. To inspect skin, appendices of skin and visible mucosa, to assess the morphology of lesions, to get acquainted with functional tests and skin patch tests; to learn laboratory tests and invasive methods of diagnosis and treatment of skin, appendices of skin and mucous pathology.</p>	<p>Workshops in different departments and laboratory of the Centre of infectious diseases and in different consulting rooms in Dermatovenereology Inpatient and Outpatient Departments and Day Care Centre. Analysis of clinical cases and clinical situations during the seminars.</p>	<p>Continued evaluation of practical skills in the Centre of infectious diseases wards, emergency department, clinical diagnostic laboratory and in different consulting rooms in Dermatovenereology Inpatient and Outpatient Departments and Day Care Centre. Evaluation of the analysis of clinical cases and clinical situations during the seminars. At the end of the course - written exam.</p>
<p>To assess the indications for hospitalization and intensive care therapy, to initiate an adequate treatment: according to etiology, pathogenesis, and clinical symptoms. To recommend primary and secondary prevention measures.</p>	<p>Workshops in different departments of the Centre of infectious diseases and in different consulting rooms in Dermatovenereology Inpatient and Outpatient Departments and Day Care Centre. Analysis of clinical cases and clinical situations during the seminars.</p>	<p>Continued evaluation of practical skills in the Centre of infectious diseases wards, emergency department. Evaluation of the analysis of clinical cases and clinical situations during the seminars. At the end of the course - written exam.</p>
<p>To define modern epidemiology, understand basic concepts, terms and assumptions of epidemiology, purpose and characteristics of surveillance, infectious, dermatological and sexually transmitted disease control and prevention principles.</p>	<p>Seminars, group work, open discussion</p>	<p>Participation in seminars, performance during the seminars, evaluation or self-study.</p>
<p>Understand the principles of constructive communication in medical practice: to communicate properly with patients and patient relatives.</p>	<p>Workshops and seminars in different departments of the Centre of Infectious diseases and in different consulting rooms in Dermatovenereology Inpatient and Outpatient Departments and Day Care Centre.</p>	<p>Continued evaluation practical skills in the Centre of infectious diseases wards and in different consulting rooms in Dermatovenereology Inpatient and Outpatient Departments and Day Care Centre. Evaluation of the analysis of clinical cases and</p>

		clinical situations during the seminars.
Store medical records properly and fully, be able to use a computer as a source of information search, store, and update information.	Workshops in different departments of the Centre of infectious diseases and centre of Dermatovenereology. Self-study.	Continued evaluation of practical skills in the Centre of infectious diseases wards, emergency department, clinical diagnostic laboratory and in different consulting rooms in Dermatovenereology Inpatient and Outpatient Departments and Day Care Centre.
To acquire knowledge of the skin disease, sexually transmitted infections associated with the oral mucosa and tongue, their etiology, clinical presentation, diagnostic and therapeutic principles and prevention.	Lectures and practice, independent work	Tests and final examination
To acquire knowledge on skin and oral mucosal examination, morphology of the rashes, functional tests (diascopy, Wood's lamp examination, dermatoscopy, Auspitz phenomenon, etc.).	Lectures and practice, independent work	Tests and final examination
To know the target laboratory, invasive diagnostic and therapeutic methods of skin and oral mucosal pathology (skin and mucosal biopsy, electrocoagulation, cryotherapy, curettage, photodynamic therapy).	Lectures and practice, independent work	Tests and final examination
To acquire knowledge about patient counseling, clinical practice, effective communication principles: communication with patients, their relatives and medical staff.	Practice	Tests
To be able to examine independently the patient, to determine disease-specific symptoms of the skin, oral mucosa and sexually transmitted diseases and to determine a preliminary diagnosis, to set an examination, treatment and prevention plans.	Practice	Tests

Content: breakdown of the topics	Contact hours						Self-study work: time and assignments		
	Lectures	Tutorials	Seminars	Exercises	Laboratory work	Internship/work	Contact hours	Self-study hours	Assignments
1. Infectious disease patterns, the principles of infectious diseases diagnostics and therapy. The main groups of antibiotics. The principles of rational		1		2			3	2	To prepare for the workshops of infectious diseases about the

antibiotic therapy and evaluation of it's effectiveness.								infectious diseases characteristics, classification, clinical microbiology, principles of antimicrobial therapy.	
2. Principles of modern infectious disease epidemiology. Application of epidemiology in clinical settings.		1		1			2	2	Study of selected publications on application epidemiology principles in medicine and public health. Exercises.
3. Concepts for the prevention and control of infectious diseases. Nosocomial infections and infection control.				2			2	2	Study of selected publications, study questions and exercises.
4. Typhoid fever, paratyphus, salmonella infection and other food borne illnesses. Shigellosis, campylobacter infection.				2			2	2	To prepare for the workshops about the infections caused by salmonella, shigellosis, campylobacter infection etiology, epidemiology, pathogenesis, clinical presentation, diagnosis, treatment and prevention.
5. Yersiniosis, <i>Clostridium difficile</i> infection. Cholera, viral gastroenteritis. Clinical stages of dehydration. Hypovolemic shock.				2			2	2	To prepare for the workshops about the Yersiniosis, <i>Clostridium difficile</i> infection and viral gastroenteritis etiology, epidemiology, pathogenesis, clinical presentation, diagnosis, treatment and prevention,

									degrees of dehydration.
6. Diseases caused by protozoa: amebiasis, toxoplasmosis and visceral leishmaniasis. Helminthiasis: trichinellosis, ascariasis, echinococcosis, taeniasis.			1	1			2	2	To prepare for the workshops about the amebiasis, toxoplasmosis and visceral leishmaniasis etiology, epidemiology, pathogenesis, clinical presentation, diagnosis, treatment and prevention. Prepare for the workshop about ascariasis, echinococcosis, taeniasis etiology, epidemiology, pathogenesis, clinical features, diagnostics, treatment and prevention.
7. Viral hepatitis (A, E, B, C).				2			2	2	Prepare for the workshop about viral hepatitis A, E, B, C etiology, epidemiology, pathogenesis, clinical features, diagnostics, treatment and prevention.
8. Acute respiratory infections: influenza, parainfluenza, COVID-19 infection, adenovirus infection, respiratory syncytial virus infection, enterovirus infection.			1	2			3	3	Prepare for the workshop about viral respiratory infections aetiology, epidemiology, pathogenesis, clinical features, diagnostics, treatment and prevention.
9. Diphtheria. Streptococcal tonsillitis. Herpes viruses infections (EBV, CMV,			1	2			3	3	Prepare for the workshop about diphtheria

<p><i>Herpes simplex, Herpes zoster</i>). Oral manifestations of viral infections.</p>								<p>streptococcal tonsillitis, <i>Herpes</i> group virus infections epidemiology, clinical features, diagnostics, differential diagnostics, treatment and prevention.</p> <p>Prepare about oral manifestations of viral infections.</p>
<p>10. Bacterial and viral meningitis. Cerebral abscesses. Meningococcal infection. Pneumococcal infection.</p>			2			2	2	<p>Prepare for the workshop about bacterial and viral meningitis, infection etiology, epidemiology, pathogenesis, clinical presentation, diagnosis, treatment and prevention; peculiarities of meningococcal and pneumococcal infection.</p> <p>Prepare for the workshop about brain abscesses of odontogenic origin.</p>
<p>11. Sepsis. Septic and toxic shock. Principals of empirical and specific antimicrobial therapy.</p>		1	1			2	1	<p>Prepare for the workshop about systemic inflammatory response, sepsis and septic shock etiology, pathogenesis, clinical features, empirical and specific antibacterial therapy.</p>

12. Tick-transmitted diseases: tick-borne encephalitis, Lyme disease.			2			2	2	Prepare for the workshop about tick-borne encephalitis and Lyme disease etiology, epidemiology, pathogenesis, clinical presentation, diagnosis, treatment and prevention.
13. Zoonoses: leptospirosis, brucellosis, tularemia. Tetanus. Rabies. Botulism.			1	1		2	2	<p>Prepare for the workshop about leptospirosis, brucellosis, tularemia etiology, epidemiology, pathogenesis, clinical presentation, diagnosis, treatment and prevention.</p> <p>Prepare for the workshop about tetanus, rabies, botulism etiology, epidemiology, pathogenesis, clinical presentation, diagnosis, treatment and prevention.</p>
14. Erysipelas, cellulitis, skin infections after animal and insect bites, (pasteurellosis, anaerobic infections).			1	2		1	1	Prepare for the workshop about skin and soft tissue infections aetiology, epidemiology, pathogenesis, clinical presentation, diagnosis, treatment and prevention, the possible etiology and clinical

									features of cellulitis. Prepare about complications of facial erysipelas and cellulitis.
15. HIV infection etiology, epidemiology, pathogenesis, clinical presentation, diagnosis, treatment and prevention.			1	2			2	1	Prepare for the workshop about features of HIV infection, epidemiology, pathogenesis, clinical presentation, diagnosis, treatment and prevention.
16. AIDS and opportunistic infections: etiology, diagnostics, treatment and prevention.			1	2			2	2	Prepare for the workshop about main opportunistic infections (pneumocystosis, toxoplasmosis, candidiasis, CMV retinitis, Kaposi sarcoma) clinical features, diagnostics and treatment. Prepare about oral manifestations of HIV infection.
17. Legionellosis, chlamydiosis, mycoplasma infection.								1	Study of selected publications, study questions and exercises.
18. Contagious diseases of travelers: malaria, Denge fever.								1	Study of selected publications, study questions and exercises.
19. Anatomy, functions of the skin and mucous membrane. Dermatological examination of the patient. The most common auxiliary diagnostic methods in dermatology.		1		2			3	2	Prepare for the workshop about the skin and mucous membrane anatomy, the sequence of examination of the patient and diagnostic

									methodology. Inspect the patient's skin and mouth lesions, evaluate them. To get acquainted with the most common auxiliary diagnostic methods in dermatologic practice.
20. Skin lesions			2				2	3	Prepare for the workshop about skin and mucous membrane lesions.
21. Papulosquamous skin diseases and oral mucosal disorders: psoriasis and lichen planus, etiology, pathogenesis, clinical features, diagnosis and principles of the treatment.		2		2			3	3	Prepare for the workshop about diagnosis and treatment of psoriasis and lichen planus. To gather history of the patient, to assess the skin and visible mucosa morphology. To provide patient examination and treatment plan.
22. Contact dermatitis: irritant and allergic: clinical presentation, diagnostics, treatment and prevention.		1		2			3	3	Prepare for the workshop about the contact dermatitis clinical presentation, diagnostic, treatment and prevention principles. Gather patient history, inspect visible mucocutaneous lesions, assess their morphology, provide further patient examination and treatment and prevention plan. Observe the use of patch testing and

									assessment in practice.
23. Atopic dermatitis: etiology, pathogenesis, clinical presentation, diagnostics, treatment. Seborrheic dermatitis: etiology, pathogenesis, clinical presentation, diagnostics, treatment.		1		2			3	2	Prepare for the workshop about atopic and seborrheic dermatitis clinical presentation, diagnostic, treatment and prevention principles. Gather patient history, inspect visible mucocutaneous lesions, assess their morphology, provide further patient examination and treatment and prevention plan.
24. Chronic facial inflammatory diseases: rosacea, acne, perioral dermatitis: etiology, pathogenesis, clinical features, diagnosis, and treatment principles.				2			2	2	Prepare for the workshop about rosacea, acne, perioral dermatitis clinical features, diagnostic and treatment principles. Gather patient's history, to assess the morphology of the lesions and provide examination and treatment plan.
25. Viral and bacterial lesions of the skin and oral mucosa: etiology, clinical features, diagnostics, treatment and prevention.				2			2	2	Prepare for the workshop about the clinical presentation of viral and bacterial skin and oral mucosa disorders. Gather history of case patients and assess the morphology of the lesions. Provide patient examination and treatment plan.

26. Fungal skin and mucous membrane diseases: etiology, clinical presentation, diagnosis, principles of treatment and prevention.			2			2	2	Prepare for the workshop about fungal skin and mucous membrane disease clinical features, laboratory diagnosis, treatment. Evaluate patients' visible skin, nail, or mucosal lesions, assess their morphology. Provide patient examination, treatment and prevention plan. Get familiar with obtaining laboratory material (from the skin scales, nails, hair).
27. Parasitic skin diseases: scabies, pediculosis - etiology, clinical presentation, diagnosis, principles of treatment and prevention.			2			2	2	Prepare for the workshop about parasitic disease clinical features. Gather patient history. Provide patient, examination, treatment and prevention plan.
28. Tongue and lip diseases: etiology, pathogenesis, clinical presentation, diagnosis, principles of treatment and prevention			2			2	2	Prepare for the workshop about diseases of the lip and tongue, their etiology, clinical features, diagnostic and treatment principles. Gather patient history, evaluate lesion morphology. Provide patient, examination and treatment plan.
29. Autoimmune connective tissue diseases (discoid lupus erythematosus) and bullous skin and oral mucosal diseases: etiology, pathogenesis, clinical features, diagnosis, and treatment principles.	1		2			3	3	Prepare for the workshop about autoimmune and bullous skin and oral mucosal diseases clinical presentation,

									diagnosis, treatment. Gather history of the patient. Evaluate the skin and mucosa morphology, Nikolsky symptom. Provide patient examination and treatment plan.
30. Melanocytic nevi: etiology, clinical features, diagnosis, treatment and prevention principles. Benign skin and mucous membrane tumors.			2			2	2		Prepare for the workshop about melanocytic nevi and benign tumors – their etiology, diagnosis, treatment and prevention principles. Get acquainted with diagnostic techniques (skin biopsy, dermoscopy) and the treatment (electrocoagulation, cryotherapy, photodynamic, laser, surgical therapy).
31. Skin and oral mucosal pre-neoplastic diseases and tumors			2			2	2		Prepare for the workshop about the most common pre-neoplastic skin and mouth diseases and clinical features of tumors, diagnostics, treatment and prevention principles. Get acquainted with diagnostic (skin biopsy, dermoscopy) and the treatments techniques (cryotherapy, photodynamic,

									laser, surgical therapy).
32. Sexually transmitted infections (syphilis, gonorrhea, chlamydia infection): epidemiology, clinical features, diagnostics, treatment and prevention.			2			2	4		Prepare for the workshop about sexually transmitted infections (syphilis, gonorrhea, chlamydia infection) with their agents, routes of transmission, clinical features, laboratory diagnosis, treatment principles. Gather patient history, inspect skin and oral mucosa, evaluate the results of laboratory tests and discuss treatment and prevention plan.
Total		2	6	28		34	33		

Assessment strategy	Weight, %	Deadline	Assessment criteria
Evaluation during the workshops	30%	During the semester	<p>The student is able to fulfill the task:</p> <ul style="list-style-type: none"> • examine patient suffering with infectious and skin disease, and sexually transmitted infections, to collect medical history, perform a patient physical examination, to identify and formulate the correct diagnosis, to differentiate it with other diseases, to create laboratory examination and treatment plan; • to take samples for microbiological tests, to know the methods of investigation, to understand the interpretation of the results, to know the basics of antimicrobial resistance, to inspect skin, appendices of skin and visible mucosa, to assess the morphology of lesions, to get acquainted with functional tests and skin patch tests; to learn laboratory tests and invasive methods of diagnosis and treatment of skin, appendices of skin and mucous pathology; • to assess the indications for hospitalization and intensive care; • to initiate the adequate treatment and prevention measures; • keep proper medical records.

			Short quiz during every lecture: oral, written (clinical case, test). Accumulated evaluation comprises 30% of the final grade.
Examination	70%	During the semester	The exam consists of 50 test questions including theoretical and practical knowledge, clinical cases from Infectious diseases (25 questions) and Dermatovenereology (25 questions). Allocated time – 2 hours. Questions may include both single and multiple-choice answers. Multiple-choice questions that are answered only partly correctly will be proportionally counted. A grade is determined automatically by converting points accumulated in 100-point system to a 10-grade system. The final grade is calculated as follows: Performance during the workshops x 0.3 + examination grade x 0.7

Author	Year of publication	Title	Issue of a periodical or volume of a publication	Publishing place and house or web link
Compulsory reading				
Scully C., Flint S. R., Porter S.R.	1996	Oral Diseases	2nd ed.	London
Balevičienė G., Maciulevičienė R.	2002	Atlas of Skin Diseases		Vilnius
Bonita R., Beaglehole R., Kjellstrom.	2006 2 nd ed	Basic epidemiology		WHO http://whqlibdoc.who.int/publications/2006/9241547073_eng.pdf
Burgdorf W., Plewig G., Wolff, M. Landthaler	2009	Braun-Falco's Dermatology	3th ed.	Berlin, Springer-Verlag
Cohen J, Powderly WG, Opal SM.	2010 3 rd ed	Infectious Diseases	Vol.1 Vol.2	Mosby, Elsevier
Bennett JE, Dolin R, Blaser MJ.	2015 8 th ed	Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases	Vol.1 Vol.2	Elsevier, Saunders
Hoffmann C, Rockstroh J.	2015	HIV 2015/2016 www.hivbook.com		Medizin Fokus Verlag
Wolff K, Johnsons R.	2017 8 th ed	Fitzpatrick's Color Atlas and Synopsis of Clinical Dermatology		London McGrawHill
Bologna JL, Jorizzo JL, Rapini RP.	2018 4 th ed	Dermatology		London, Elsevier

Wolff K, Goldsmith LA, et al	2019 9 th ed	Fitzpatrick's dermatology in general medicine		London McGrawHill London McGrawHill
Habif T.	2019 7 th ed	Clinical dermatology: A Color Guide to Diagnosis and Therapy		Mosby, New York
Valiukevičienė S, Grigaitienė J, Burg G, Itin P, McGrath J.	2021	DOIT: Dermatology Online with Interactive Technology. Webbook		LSMU, VU www.cyberderm.net
Optional reading				
Balevičienė G.	2000	Atlas of Bullous, Vesicular and Pustular Skin Diseases		Vilnius
Advisory Committee on Immunization Practices (ACIP).	2011	General Recommendations on Immunization. Recommendations of the Advisory Committee on Immunization Practices	<i>MMWR. Recommendations and Reports.</i> / Vol. 60 / No. 2	http://www.cdc.gov/mmwr/pdf/rr/rr6002.pdf
Rothman KJ	2012 2 nd ed.	Epidemiology: an introduction		Oxford University Press
Farrar J, Hotez PJ, Junghanss T, Kang G, Lalloo D, White NJ.	2014 23 rd ed.	Manson's Tropical Diseases		Elsevier, Saunders
Beek D, Cabellos C, Dzapova O, et al.	2016	European Society of Clinical Microbiology and Infectious Diseases (ESCMID) guideline: diagnosis and treatment of acute bacterial meningitis.		Clinical Microbiology and Infection. 22(S3):S37-S62. http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(16)00020-3/pdf
Center of Disease Control and Prevention	2017	Health Information for International Travel "Travelers' Health" http://wwwnc.cdc.gov/travel/yellowbook/2018		Oxford University Press
www.hcvguidelines.org	2017	HCV guidance: Recommendations for testing, managing and treating hepatitis C		AASLD and IDSA