Ministry of Science and Higher Education of the Russian Federation
Federal State Autonomous Institution of Higher Education
“National Research Nuclear University “MEPhI”

INSTITUTE OF ENGINEERING PHYSICS FOR BIOMEDICINE

DEPARTMENT OF FUNDAMENTAL MEDICINE

APPROVED НТС ИФИБ

Protocol No. 3.1

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ACADEMIC COURSE OUTLINE

ДЕРМАТОВЕНЕРОЛОГИЯ / DERMATOVENEREOLOGY

Educational program track (speciality) [1] 31.05.01 General Medicine

Semester	**Labour input, credits**	**Total course academic, hours**	**Lectures, hrs.**	**Practical sessions, hrs.**	**Laboratory sessions, hrs.**	**In the form of practical studies, hrs.**	**Independent studies, hrs.**	**Independent studies monitoring, hrs.**	**Course progress, Exam/Pass-fail exam/Term**
7	3	108	20	40	0		48	0	PFE
Total	3	108	20	40	0	40	48	0	

ABSTRACT

The purpose of studying the discipline is to provide students with systematic knowledge about skin diseases and sexually transmitted infections, their etiology, pathogenesis, clinical manifestations, as well as the skills to diagnose, conduct differential diagnosis, treat, and prevent skin and venereal diseases. It also aims to understand the necessity of referring patients to a dermatovenereologist and to correlate identified dermatovenereological symptoms with internal diseases.

1. ACADEMIC COURSE GOALS AND OBJECTIVES

The purpose of studying the discipline “Dermatovenereology” is to form competencies in diagnosing, treatment principles, and prevention of the most common dermatovenereological diseases.

Objectives:

 Forming a knowledge system about the etiology, epidemiology, pathogenesis, clinical manifestations of skin diseases and sexually transmitted infections, diagnosis, treatment approaches, and prevention of dermatovenereological diseases.

 Developing skills to recognize clinical manifestations of the most common skin and venereal diseases based on knowledge of dermatovenereological status features.

 Introducing students to methods of clinical examination of patients with skin and venereal diseases.

 Developing skills for confirming diagnosis, conducting tests, and methods in dermatological practice.

 Forming skills to provide medical assistance in emergency conditions in dermatovenereological practice.

 Developing skills to determine hospitalization indications for patients with severe clinical manifestations of dermatoses.

 Forming skills to choose optimal treatment regimens for patients with various dermatoses and sexually transmitted infections.

 Teaching follow-up observation and rehabilitation of patients with chronic dermatoses.

 Developing understanding of primary and secondary prevention principles, basics of health education, and organizational measures to reduce the incidence of contagious skin and venereal diseases.

 Developing clinical thinking, communication skills with patients considering ethics and deontology, and interaction skills with colleagues.

 Improving skills in studying and applying scientific literature and official statistical reviews in professional activities.

2. PLACE OF THE ACADEMIC COURSE IN THE MAIN HIGHER EDUCATION CURRICULUM

For successful mastery of this discipline, knowledge, skills, and abilities formed during the study of the following disciplines are required: Anatomy, Histology, Embryology, Cytology, Latin Language, Medical Microbiology and Virology, Immunology, Pathological Anatomy, Pathophysiology, Pharmacology, Propaedeutics of Internal Diseases, General Surgery.

The knowledge, skills, and abilities acquired during the study of the discipline are necessary for successful mastering of clinical disciplines included in the training plan, as well as disciplines such as

Epidemiology, Section Course, Forensic Medicine, and production practices in therapeutic, obstetric-gynecological, and surgical profiles, and Polyclinic Practice.

3. DEVELOPED COMPETENCIES AND INTENDED LEARNING OUTCOMES

Universal and/or general professional competencies:

Competency code and title	**Code and title of competency-based rubrics**
ОПК-4 [1] – Capable of using medical devices stipulated by the medical care procedures, as well as conducting patient examination for diagnosis establishment.	З-ОПК-4 [1] – Know: - modern diagnostic instrumental examination methods for patients, including functional, radiological, ultrasound, radionuclide diagnostics, and endoscopy; - diagnostic capabilities of instrumental examination methods; - medical devices stipulated by the procedure for providing medical care to the adult population in the "Therapy" specialty, and the equipment standard for a therapeutic room; - main medical devices stipulated by the procedures for providing medical care to the adult population in major surgical specialties, obstetrics, and gynecology; - indications for referring patients for instrumental examinations and functional diagnostics; - techniques for physical examination of patients using medical devices stipulated by procedures and considering medical care standards У-ОПК-4 [1] – Be able to: - use medical devices stipulated by the medical care procedure; - determine the required volume and content of instrumental and functional diagnostics to establish a diagnosis; - interpret results of the most common functional and instrumental diagnostic methods В-ОПК-4 [1] – Possess skills in: - using basic medical devices (stethoscope, blood pressure monitor, sphygmomanometer, pulse oximeter, height-weight scale, measuring tape, neurological hammer, scalpel, forceps, and other devices); - operating electrocardiographs and devices for measuring external respiratory function; - interpreting results of the most common functional and instrumental diagnostic methods
ОПК-6 [1] – Capable of organizing general nursing, providing primary medical care, ensuring the organization of work and making professional decisions in emergencies at the pre-hospital stage, in emergency situations, epidemics and in areas of mass destruction	З-ОПК-6 [1] – Know: - a set of measures for general nursing with diseases of various organs and systems; Signs of clinical and biological death; - indications for patient hospitalization for the most common diseases with typical progression. У-ОПК-6 [1] – Be able to: - organize care for patient when providing medical care in an outpatient setting; - determine the need for patient hospitalization; - ensure the organization of work in emergency situations, epidemics, and in mass casualty zones. В-ОПК-6 [1] – Possess skills in: - general care of a patient (general nursing); - providing first aid; - making medical decisions in emergencies at the prehospital stage, including in emergency situations, epidemics, and in mass casualty zones.
ОПК-7 [1] – Capable of prescribing treatment and	З-ОПК-7 [1] – Know: - pharmacological groups of medicinal drugs and their intended purposes; - mechanisms of action of

monitoring its effectiveness and safety.	pharmacological and non-pharmacological treatments, indications and contraindications for their use, side effects, and complications caused by their application; - methods for monitoring the effectiveness and safety of various treatment approaches. У-ОПК-7 [1] – Be able to: - make rational choices for pharmacological and non-pharmacological treatments based on clinical guidelines and in accordance with medical care standards; - develop a treatment plan for a disease or condition considering the diagnosis, age, disease course characteristics, and comorbidities, based on clinical guidelines and medical care standards; - prescribe medications, medical devices, and therapeutic nutrition considering the diagnosis, age, disease course characteristics, and comorbidities, based on clinical guidelines and medical care standards; - justify prescribed pharmacological and non-pharmacological treatments; - evaluate the effectiveness and safety of medications, medical devices, therapeutic nutrition, and other treatment methods. В-ОПК-7 [1] – Possess skills in: - administering medications through various routes of administration; - developing treatment plans for diseases or conditions considering diagnosis, age, disease course characteristics, and comorbidities; - assessing the effectiveness and safety of prescribed treatments.

Professional competencies in compliance with the goals and professional knowledge areas:

Professional activity goal	**Professional activity knowledge area**	**Professional competency code and title; Based on the professional standard, experience analysis**	**Code and title of competency-based rubrics**
medical			
Diagnostics of diseases and pathological conditions of the patients.	Individuals (patients); the population; the set of means and technologies aimed at creating conditions for preserving and strengthening the health of the adult population	ПК-3.2 [1] - Capable of conducting patient examinations to establish a diagnosis *The base:* Professional standard: 02.009	З-ПК-3.2[1] - Know: - clinical diagnosis establishment algorithm; - patient history-taking and physical examination methodology; - laboratory and instrumental research methods for health assessment to establish a diagnosis; - semiotics of diseases of different organs and systems; - structure, principles of the current International Statistical Classification of Diseases and Related Health Problems (hereinafter - ICD).;

			У-ПК-3.2[1] - Be able to: - conduct patient history-taking and physical examination; - interpret history, physical examination data, laboratory and instrumental results to recognize a condition or establish the presence/absence of a disease, establish a diagnosis; - distinguish and recognize in each specific case tissue damage, the reaction to it, and the form of adaptability; - develop a patient examination plan, justify the necessity and scope of laboratory and instrumental examination; - identify main pathological conditions, symptoms and syndromes, nosological forms in the patient according to the current ICD.; В-ПК-3.2[1] - Possess skills in: - patient history-taking and physical examination; Formulating a preliminary diagnosis; - developing a patient examination plan; Interpreting laboratory and instrumental results; - establishing a diagnosis considering the current ICD
Providing primary medical care in outpatient settings and day hospital settings.	Individuals (patients); the population; the set of means and technologies aimed at creating conditions for preserving and strengthening the health of the adult population	ПК-3.3 [1] - Able to provide primary medical care in an outpatient setting *The base:* Professional standard: 02.009	З-ПК-3.3[1] - Know: - general issues of organizing medical care for the population and organizing medical care for the adult population in outpatient settings, including at home; - features of medical care using telemedicine technologies; - Clinical picture, differential diagnosis, features of the course of the disease,

			complications and outcomes of internal diseases; - diagnostic criteria for the most common diseases of internal organs and systems; - indications for referring patients for specialist consultations according to clinical guidelines and considering relevant medical care standards; - indications for referring patients for specialized medical care in inpatient settings and day hospitals according to clinical guidelines and considering relevant medical care standards; - features of managing and treating elderly patients in outpatient settings. ; У-ПК-3.3[1] - Be able to: - perform differential diagnosis of internal diseases; - monitor the course of physiological pregnancy; - justify the need for referring patients to specialist consultations; - recognize the main and concomitant diseases; - assess disease or condition severity - the degree of organ and/or system damage or functional impairment due to the disease/condition or its complications; - determine management, examination and treatment tactics for patients with specific diseases (nosological units) depending on disease severity and condition, according to clinical guidelines and considering relevant medical care standards.; В-ПК-3.3[1] - Possess skills in: - conducting

			differential diagnosis with other diseases/conditions, including emergencies; - interpreting data obtained from patient consultations with specialists; - prescribing additional tests to clarify the diagnosis; - formulating a clinical diagnosis; - prescribing treatment according to clinical guidelines and considering relevant medical care standards.

4. PEDAGOGIC POTENTIAL OF THE COURSE

Pedagogic tracks/objectives	**Pedagogic goals (code)**
Professional education	Establishing conditions for: formation of responsibility for professional choice, professional development and professional decisions (B18)
Professional education	Establishing conditions for: formation of motivation to improve the quality of medical care to the population and the desire to follow the rules and norms of interaction between the doctor, colleagues and the patient, contributing to the creation of the most favorable environment for the patient's recovery (B34)

5. ACADEMIC COURSE STRUCTURE AND CONTENT

Academic course sections, their scope, terms of study and assessment:

No.	**Academic course section name**	**Weeks**	**Lectures/ Practical (seminars)/ Laboratory sessions, hrs.**	**Compulsory current assessment (form*, week)**	**Maximum grade per section****	**Section assessment (form*, week)**	**Competency-based rubrics**
	7 Semester						
1	General and Private Dermatology	1-8	10/20/0	T-8 (25)	25	T-8	З-ОПК-4, У-ОПК-4, В-ОПК-4, З-ОПК-6, У-ОПК-6, В-ОПК-6, З-ОПК-7, У-ОПК-7, В-ОПК-7,

							З-ПК-3.2, У-ПК-3.2, В-ПК-3.2, З-ПК-3.3, У-ПК-3.3, В-ПК-3.3
2	Private dermatology and venereology. Skin diseases and venereal diseases, principles of differential diagnosis	9-16	10/20/0	Т-15 (25)	25	Т-15	З-ОПК-4, У-ОПК-4, В-ОПК-4, З-ОПК-6, У-ОПК-6, В-ОПК-6, З-ОПК-7, У-ОПК-7, В-ОПК-7, З-ПК-3.2, У-ПК-3.2, В-ПК-3.2, З-ПК-3.3, У-ПК-3.3, В-ПК-3.3
	Totals for 7 Semester		20/40/0		50		
	Assessment events for 7 Semester				50	PFE	У-ОПК-6, З-ОПК-4, У-ОПК-4, В-ОПК-4, З-ОПК-6, В-ОПК-6, З-ОПК-7, У-ОПК-7, В-ОПК-7, З-ПК-3.2, У-ПК-3.2, В-ПК-3.2, З-ПК-3.3, У-ПК-3.3, В-ПК-3.3

* – abbreviated name of assessment

** – 100 maximum points per semester including a pass/fail exam and (or) an exam

Abbreviated current assessment forms and section assessment

Abbreviation	Full name
T	Testing
PFE	Pass/fail examination

SYLLABUS

Weeks	Topics / Content	Lect., hrs.	Pr./sem., hrs.	Lab., hrs.

	7 Semester	20	40	0
1-8	**General and Private Dermatology**	10	20	0
1 - 2	**Topic 1. Principles of Dermatosis Diagnosis** Skin structure. Skin types. Morphofunctional characteristics of skin in different anatomical areas. Age, gender, and racial features of skin structure. Skin functions. Structure and functions of skin appendages. Primary and secondary pathomorphological elements. Principles of dermatosis diagnosis. General symptomatology of skin diseases.	All		
		1	2	0
		Online		
		0	0	0
2 - 3	**Topic 2. Dermatitis** Causes. Pathogenesis. Pathomorphology of dermatitis. Symptoms. Allergic dermatitis. Radiation dermatitis. Exfoliative dermatitis. Contact dermatitis and eyelid eczema. Diaper dermatitis. Polymorphic dermatitis of pregnancy. Corticosteroid creams. Principles of dermatitis treatment. Medications used in dermatology.	All		
		1	2	0
		Online		
		0	0	0
3 - 4	**Topic 3. Toxicoderma** Causes. Risk factors. Pathogenesis. Symptoms. Fixed (sulfonamide) erythema. Urticaria-type toxicoderma. Bromoderma and Iododerma. Lyell's syndrome. Therapy principles.	All		
		1	2	0
		Online		
		0	0	0
4 - 5	**Topic 4. Pruritic Dermatitis** Classification. Pathogenesis. Symptoms. Acute, subacute, and chronic dermatitis. Complications and consequences. Treatment.	All		
		1	2	0
		Online		
		0	0	0
5 - 6	**Topic 5. Atopic Dermatitis** Classification. Genetic factors. Pathohistology. Clinic. Clinical features of childhood form, adolescents, adults. Atopic eczema of special localizations: atopic cheilitis, peri-auricular eczema. Nipple eczema. Juvenile plantar dermatitis. Atopic eczema of hands. Pityriasis alba. Discoid papular eczema. Lichen simplex. Prurigo. Additional AD criteria: skin xerosis, follicular keratosis, palm linearity, Dennie-Morgan fold. Associated disorders in AD: bronchial asthma, hay fever, urticaria, atopic keratoconjunctivitis, keratoconus. Concept of vulgar ichthyosis.	All		
		1	2	0
		Online		
		0	0	0
5 - 6	**Topic 6. Pyoderma** Etiology. Classification. Pathogenesis. Staphylococcal pyoderma acute: superficial: ostefolliculitis, impetigo, staphylococcal pemphigoid of newborns; deep: deep folliculitis, acne, furuncle, carbuncle, hidradenitis, multiple abscesses of newborns. Chronic staphylococcal pyodermas: superficial: vulgar sycosis, furunculosis, decalvating folliculitis. Streptococcal pyodermas acute superficial: impetigo, intertrigo. Deep acute: streptococcal eczema, erysipeloid. Chronic deep streptococcal pyoderma: chronic diffuse streptoderma. Mixed pyodermas acute superficial: vulgar impetigo, deep: vulgar ecthyma. Mixed streptodermas deep chronic: chancriform pyoderma, vegetative ulcerative pyoderma, conglobate acne. Ostefolliculitis, Hoffmann's undermining folliculitis. Treatment.	All		
		1	2	0
		Online		
		0	0	0
6 - 7	**Topic 7. Scabies, Pediculosis** • Etiology, pathogenesis, clinical picture, Norwegian scabies.	All		
		1	2	0

	Concept of scabies mite, life cycle. Incognito scabies. Post-scabetic lymphoplasia. • Treatment of scabies. • Pediculosis and its treatment	Online		
		0	0	0
6 - 7	**Topic 8. Psoriasis** Etiology, pathogenesis, clinic, Köbner phenomenon. Psoriatic triad. Pustular psoriasis. Nail psoriasis. Psoriasis in children. Psoriasis of specific localizations. Psoriatic arthritis. Intertriginous psoriasis. Pustular psoriasis. Seborrheic psoriasis. Treatment.	All		
		1	2	0
		Online		
		0	0	0
7 - 8	**Topic 9. Scleroderma.** Etiology, Pathogenesis, Phases. Clinical Types. Deep Types. Pathohistology. Treatment. Discoid Lupus.	All		
		1	2	0
		Online		
		0	0	0
7 - 8	**Topic 10. Pemphigus/ Seborrhea. Acne. Rosacea** etiology, pathogenesis, clinic. Vulgar pemphigus: vegetating, herpetiform. Foliate pemphigus: Brazilian, erythematous. Paraneoplastic pemphigus, atypical, drug-induced, immunoglobulin A-mediated. Treatment. etiology of seborrhea. Pathogenesis, clinic, and treatment.	All		
		1	2	0
		Online		
		0	0	0
9-16	**Private dermatology and venereology. Skin diseases and venereal diseases, principles of differential diagnosis**	10	20	0
8 - 9	**Leprosy** Leprosy Etiology, history, pathogenesis	All		
		1	2	0
		Online		
		0	0	0
8 - 9	**Mycoses and viral dermatoses** Mycoses: general information, classification. Epidemiological aspects of mycoses. Clinical picture, differential diagnosis, principles of treatment, prevention, organization of dispensary examination of patients. The doctor's tactics in the epidemiological focus of patients with mycoses. Viral dermatoses: simple herpes, shingles, warts, contagious molluscum, herpetiform eczema of Kaposi. Clinical symptoms, differential diagnostic criteria, and treatment tactics.	All		
		1	2	0
		Online		
		0	0	0
9 - 10	**Syphilis** Introduction to venereology. Stages of development of venereology. Classification of sexually transmitted infections. Syphilis. Classification of syphilis. Syphilis clinic. Pathomorphology of the chancre. Varieties of chancre. Clinic and differential diagnosis of early forms of syphilis. General characteristics of secondary syphilides, hair and nail lesions. Late forms of syphilis. Tertiary rosea, tuberculous and gummous syphilis. Features of the current course of syphilis. Diagnosis, treatment and prevention of syphilis. Principles of treatment of syphilis, modern methods. Criterion of cure.	All		
		1	4	0
		Online		
		0	0	0
10 - 11	**Gonorrhea and other non-gonococcal urethritis** Gonorrhea and other non-gonococcal urethritis Epidemiology, etiology, pathogenesis of gonorrhea.	All		
		1	4	0
		Online		

	Classification. Gonorrhea in men. Gonorrhea in women. Gonorrhea in pregnant women. Features of the clinic, diagnostics and treatment of gonorrhea in children. Clinic, diagnostics and treatment of gonorrhea. Chlamydia infection of the genitourinary system. Prevalence, etiology, types of diagnostics, features of clinical manifestations in men, women. Treatment. Criteria of cure and prevention. Trichomonal infection of the genitourinary system. Prevalence, etiology, types of diagnostics, features of clinical manifestations in men, women and children. Inflammatory diseases of the genitourinary tract associated with genital mycoplasmas. Etiology, epidemiology, pathogenesis, clinic, laboratory diagnostics. Treatment, criteria of cure and prevention.	0	0	0
11 - 12	**Skin tumors** Skin tumors etiology, pathogenesis, classification. Features of examination, basics of dermatoscopy	All		
		2	4	0
		Online		
		0	0	0
13 - 14	**Occupational dermatoses** etiology, types, pathogenesis, prevention	All		
		2	2	0
		Online		
		0	0	0
14 - 15	**Dermatological aspects of HIV infection** Dermatological aspects of HIV infection types of lesions, general information, treatment prospects	All		
		2	2	0
		Online		
		0	0	0

Abbreviated names of online options:

Abbreviation	Full name
EC	E-course
FtM	Full-text material
FtL	Full-text lectures
VM	Video materials
AM	Audio materials
Prs	Presentations
T	Tests
ERM	E-reference materials
IS	Interactive site

PRACTICAL SESSIONS TOPICS

Weeks	Topics / Content
	7 Semester
1 - 2	**Introductory Session. Methodology of Examining a Dermatovenerology Patient** Introductory Session. Methodology of Examining a Dermatovenerology Patient Basics of collecting complaints, medical history, examination, palpation
3 - 4	**Pathophysiological Processes in the Epidermis** Pathophysiological Processes in the Epidermis Hyperkeratosis. Acanthosis. Parakeratosis. Dyskeratosis. Disorders of intercellular connections in the epidermis. Structure of desmosomes. Acantholysis. Spongiosis

5 - 6	**Principles of Dermatosis Diagnosis** Principles of organizing specialized dermatovenerological care (outpatient, inpatient). Features of working with dermatovenerological patients. Fundamentals of medical ethics and deontology. Anatomy and physiology of skin and its appendages (hair, nails, sebaceous and sweat glands). Pathohistological changes in epidermis, dermis, subcutaneous fat. Rashes and their morphological elements. Diagnostic phenomena in dermatology for common dermatoses. Rules and conditions for conducting a general examination of a dermatovenerological patient. Plan for examining a patient. Mastering methods of special dermatological examinations (dermographism, diascopy, psoriatic triad, pilomotor reflex, tactile pain sensitivity, temperature sensitivity, corneometry, sebumetry, etc.). Examination of patients with various skin pathologies. Description of skin processes in common infectious and non-infectious dermatoses. Writing a fragment of medical history.
7 - 8	**Pyoderma. Scabies. Pediculosis.** etiology. Classification. Pathogenesis. Staphylococcal pyoderma acute: superficial: osteofolliculitis, impetigo, staphylococcal pemphigoid of newborns; deep: deep folliculitis, acne, furunculosis, carbunculosis, hidradenitis, multiabscesses of newborns. Chronic staphylococcal pyoderma: superficial: vulgar sycosis, furunculosis, decalvating folliculitis. Acute streptococcal pyoderma: superficial: impetigo, intertrigo. Acute deep: streptococcal eczema, erysipeloid. Chronic streptococcal pyoderma: deep: chronic diffuse streptoderma. Mixed pyoderma acute superficial: vulgar impetigo, deep: vulgar ecthyma. Mixed streptoderma deep chronic: chancreform pyoderma, ulcerative vegetative pyoderma, conglobate acne. Osteofolliculitis, undermining Hoffman folliculitis. Treatment and prevention Scabies: etiology, pathogenesis, clinical picture, Norwegian scabies. Concept of scabies mite, life cycle. Incognito scabies. Post-scabetic lymphoplasia. Treatment. Pediculosis, treatment. Scabies: prevalence, causes and mechanisms of development. Clinical picture of scabies, features of skin rashes, nature of itching component, preferred localization, excoriations. Determination of skin rash elements in scabies. Features of diagnosis. Clinical analysis of patients on the topic. Examination of a patient with scabies. Description of skin process in a patient with scabies. Writing a fragment of medical history. Features of clinical course of scabies in children. Crust scabies. Treatment of scabies, features of local treatment, rules of applying medications. Prevention of scabies. Epidemiological tactics of a doctor when detecting scabies in a patient. Pediculosis: prevalence, types, diagnosis, treatment. Conditions of infection. Features of diagnosis. Treatment, rules of prescribing and applying acaricidal agents. Prevention of pediculosis. Epidemiological tactics of a doctor when detecting pediculosis in a patient. Patient management. Writing a medical history according to the sample with mandatory justification of diagnosis and pathogenesis of symptoms of a specific patient for management
9 - 10	**Atopic Dermatitis** Causes and mechanisms of development, age groups, complex therapy. Clinical analysis of patients on the topic. Examination of patients with atopic dermatitis: interview (main complaints and their pathogenesis), examination (primary and secondary rash elements, nature of rash elements, localization, itching component, excoriations), conducting special dermatological examinations (diascopy, dermographism, etc.)
11	**Toxicodermia** Toxicodermia Simple contact dermatitis: clinical manifestations, diagnostic criteria, treatment methods. Allergic contact dermatitis: clinical symptoms, differential diagnosis, management of patients. Clinical analysis of patients on the topic of the lesson. Examination of patients with dermatitis: questioning (main complaints and their pathogenesis), examination (primary and

	secondary elements of the rash, the nature of the rash elements, localization, pruritic component, excoriations), and special dermatological tests (dioscopy, dermographism, etc.). Toxicoderma: causes, classification, diagnostic and therapeutic measures. Differential diagnostic criteria. Principles of therapy and rehabilitation of patients. Clinical analysis of patients according to the topic of the lesson. Examination of patients with toxicodermia: questioning (main complaints and their pathogenesis), examination (primary and secondary elements of the rash, nature of the rash elements, localization, pruritic component, and excoriations), and special tests.
12	**Psoriasis. Lichen planus. Rosacea** Psoriasis: prevalence, causes and mechanisms of development, provoking factors. Differential diagnosis. Clinical symptoms, psoriatic triad. Treatment of uncomplicated and complicated forms. Expertise of disability of patients with psoriasis. Clinical analysis of patients on the topic of the lesson. Examination of patients with psoriasis: questioning (main complaints and their pathogenesis), examination (primary and secondary elements of the rash, the nature of the rash elements, localization, pruritic component, and excoriations), and special dermatological tests (dioscopy, dermographism, etc.) and psoriatic phenomena. Lichen planus: causes and mechanisms of development, clinical manifestations, diagnostic and therapeutic measures. Clinical analysis of patients on the topic of the lesson. Examination of patients with lichen planus: questioning (main complaints and their pathogenesis), examination (primary and secondary elements of the rash, the nature of the rash elements, localization, pruritic component, excoriations), conducting special dermatological tests (diascopy, dermographism, etc.) and phenomena in lichen planus. Pityriasis rosea: clinical analysis of patients according to the topic of the lesson. Examination of patients with Pityriasis rosea: questioning (main complaints and their pathogenesis), examination (primary and secondary elements of the rash, the nature of the rash elements, localization, pruritic component, excoriations), conducting special dermatological tests (dioscopy, dermographism, etc.). Patient care. Writing a medical history according to a sample, with a mandatory justification of the diagnosis and writing the pathogenesis of the symptoms of a specific patient given for care.
13	**Gonorrhea and other non-gonococcal urethritis** Prevalence, causes of gonorrhea development. Examination of patients with gonorrhea. Classification. Complicated forms of gonorrhea. Extragenital forms: gonococcal pharyngitis, stomatitis, proctitis, conjunctivitis, skin lesions. Disseminated gonococcal infection. Clinical manifestations, diagnostic and therapeutic measures. Urogenital chlamydia. Prevalence, etiology, types of diagnostics, clinical manifestations in men and women, and complications of chlamydia. Treatment. Criteria for cure and prevention. Urogenital Trichomoniasis. Prevalence, etiology, types of diagnostics, clinical manifestations in men, women, and children. Complications of Trichomoniasis. Treatment. Criteria for cure and prevention. Bacterial Vaginosis. Normal vaginal flora in girls and women. Etiology, epidemiology, pathogenesis, laboratory diagnostics, clinical manifestations in men, women, and children. Treatment, criteria for cure, and prevention. Genital mycoplasmas in the development of inflammatory diseases of the genitourinary system. Etiology, epidemiology, pathogenesis, clinic, laboratory diagnostics. Treatment, criteria for cure, and prevention. Urogenital candidiasis: etiology, epidemiology, pathogenesis, laboratory diagnostics, clinic in men, women, and children. Treatment, criteria for cure, and prevention. Clinical analysis of patients on the topic of the lesson
14	**Mycoses and viral dermatoses** Keratomycoses (pityriasis, erythrasma). Dermatomycoses (epidermophytia, rubromycosis). Trichomycoses (trichophytia, microsporia, favus). Candidiasis. Mycoses of the hands, feet,

	onychomycosis. Biological properties of pathogens. Prevalence and routes of infection. Clinical analysis of patients on the topic of the lesson. Examination of patients with dermatomycoses: questioning (main complaints and their pathogenesis), examination (primary and secondary elements of the rash, nature of the rash elements, localization, pruritic component, and excoriations), and special dermatological tests (diascopy, dermographism, etc.). Viral dermatoses: clinical symptoms, differential diagnostic criteria, and treatment tactics. Clinical analysis of patients according to the topic of the lesson. Examination of patients with viral dermatoses: questioning (main complaints and their pathogenesis), examination (primary and secondary elements of the rash, the nature of the rash elements, localization, itching, and excoriations).
15	**Syphilis** Etiology and pathogenesis of syphilis. Information about the pallid spirochete according to electron microscopy. Ways of infection. Incubation period, general pathology of 1,2,3 and latent periods of syphilis. The question of immunity. Reinfection and superinfection. Classification of syphilis. The clinic of syphilis. Primary syphilis: classification, varieties of a hard chancre, atypical hard chancres, complications. Differential diagnosis of chancre with simple vesiculitis and cancer ulcer. Pathomorphology of chancre. Varieties of chancre. Clinic and differential diagnosis of early forms of syphilis. Secondary syphilis: classification, onset time, manifestations on the skin and mucous membranes. Differential diagnosis of secondary fresh and recurrent syphilis. Syphilides of the skin and mucous membranes of the secondary period. Differential diagnosis with manifestations of skin diseases (psoriasis, dermatitis, etc.). General characteristics of secondary syphilides, hair and nail lesions. Late forms of syphilis. Tertiary rosea, tuberculous and gummous syphilides. Damage to mucous membranes and muscles. Congenital syphilis (classification, causes, fetal and placental syphilis). Syphilis in early childhood (infancy). Differential diagnosis of epidemic and syphilitic pemphigus. Late congenital syphilis. Reliable and probable signs of late congenital syphilis. The nature of clinical and serological reactions in different periods of syphilis. Features of the current course of syphilis. Diagnosis, treatment, and prevention of syphilis. Performing tests for ELISA (Enzymelynced immunosorbent assay, EIA — Enzyme immunoassay), TPHA, TPPA (Treponema pallidum hemagglutination assay, Treponema pallidum particle agglutination assay), PCR (Polymerase Chain Reaction), RPR (Rapid Plasma Reagin) / MHA-TP (Microhemagglutination Test for Treponema pallidum), CSF (Cardiolipin Serum Fluorescent) / Serological Complex Reaction), FTA (Fluorescent treponemal antibody), TPI (Treponema pallidum immobilization test). Ways and methods of combating acquired and congenital syphilis in Russia. Principles of treating syphilis, modern methods. Criteria for cure. Features of conducting disability examinations. Clinical analysis of patients according to the topic of the lesson. Examination of patients with syphilis: questioning (main complaints, epidemiological history), examination, collection of material, and testing for Treponema pallidum.

6. EDUCATIONAL TECHNOLOGIES

In the process of teaching the discipline, methods are used based on modern achievements of science and information technologies in education. They are aimed at improving the quality of training specialists by developing students' creative abilities and independence. For this purpose, both

traditional teaching methods (lectures, clinical practical classes) and interactive forms of conducting seminars and clinical reviews are used:

- training forms of conducting practical classes (clinical situational task, case, role-playing game in the form of clinical review or patient care);
- interactive clinical review with demonstration of patients;
- involving students in scientific preclinical and clinical research, preparing presentation materials, reports, essays, or abstracts.

7. ASSESSMENT TOOLKIT

The assessment toolkit ensures verification of the intended learning outcomes achievement (competency-based rubrics) using current, midterm and interim assessment of the course.

The link between developed competencies and their assessment is presented in the following table:

Competency	**Achievement rubrics**	**Assessment activity (Syl 1)**
ОПК-4	З-ОПК-4	PFE, T-8, T-15, T-8, T-15
	У-ОПК-4	PFE, T-8, T-15, T-8
	В-ОПК-4	PFE, T-8, T-15, T-15
ОПК-6	З-ОПК-6	PFE, T-8, T-15, T-8, T-15
	У-ОПК-6	PFE, T-8, T-15, T-8
	В-ОПК-6	PFE, T-8, T-15, T-15
ОПК-7	З-ОПК-7	PFE, T-8, T-15, T-8, T-15
	У-ОПК-7	PFE, T-8, T-15, T-8
	В-ОПК-7	PFE, T-8, T-15, T-15
ПК-3.2	З-ПК-3.2	PFE, T-8, T-15
	У-ПК-3.2	PFE, T-8, T-15
	В-ПК-3.2	PFE, T-8, T-15
ПК-3.3	З-ПК-3.3	PFE, T-8, T-15
	У-ПК-3.3	PFE, T-8, T-15
	В-ПК-3.3	PFE, T-8, T-15

Educational achievement rubrics scales

The scale of each assessment activity varies from 0 to the maximum established point, inclusive. The final assessment of the course is performed on a 100-point scale and represents the sum of the points earned by the student in the section assessments, framework of current and interim assessment.

Sections and interim assessments are considered passed when the student achieves a minimum score equal to 60% of the maximum. The final grade is assigned only upon passing all sections and the interim assessment.

The final grade is assigned in accordance with the following scale:

Total score	**Rating on a 4-point scale**	**Pass/fail examination**	**ECTS assessment**
90-100	5 – *«excellent»*	*«pass»*	A
85-89	4 – «*good*»		B

75-84			C
70-74			D
65-69	3 – «*satisfactory*»		
60-64			E
below 60	2 – «*fail*»	*«fail»*	F

An “excellent” grade indicates a deep and solid mastery of the program material by a student who presents their answers consistently, clearly, and logically, is able to closely link theory with practice, and uses materials from monographic literature in their answers.

A “good” grade corresponds to a student’s solid knowledge of the material, who presents their answers competently and to the point, without any significant inaccuracies.

A “satisfactory” grade corresponds to the basic level of mastery of the material by the student, in which the main material has been mastered, but its details have not been assimilated, the answers contain inaccuracies, insufficiently correct wording and logical inconsistencies.

A grade “pass” corresponds to at least a basic level of mastery of the program material, in which the student possesses the necessary knowledge, skills, and abilities, and is able to apply theoretical principles to solve typical practical problems.

A grade “fail” is given to a student who lacks a significant understanding of the curriculum material, makes significant errors in their answers, or fails all required assignments. These students are generally unable to continue their studies without additional classes.

8. ACADEMIC COURSE EDUCATIONAL, METHODOLOGICAL AND INFORMATIONAL SUPPORT

CORE READING:

1. ЭИ R59 Atopic Dermatitis : Eczema, Ring, Johannes. , Cham: Springer International Publishing, 2016

2. ЭИ Ч-34 Дерматовенерология : учебник, Асхаков М.С., Чеботарев В.В., Москва: ГЭОТАР-Медиа, 2020

3. ЭИ Д36 Дерматологический атлас : монография, , Москва: ГЭОТАР-Медиа, 2023

4. ЭИ С 88 Кожные и венерические болезни : , Стукаиова Н.П. , Москва: Феникс, 2021

FURTHER READING:

1. ЭИ Д 26 Дерматовенерология. Клинические задачи : учебное пособие для вузов, Сорокина Е. Д. [и др.], Москва: Юрайт, 2024

2. ЭИ К 49 Клиническая дерматология. Иллюстрированное руководство для врачей : , Сыдиков А.А., Родионов А.Н. , Заславский Д.В., Москва: ГЭОТАР-Медиа, 2019

3. ЭИ П69 Практические навыки в дерматовенерологии : справочник : справочник, , Москва: ГЭОТАР-Медиа, 2023

4. ЭИ Ч-34 Урогенитальные хламидийная и микоплазменная инфекции. Последствия инфицирования, лечение, основанное на доказательной медицине : монография, Чеботарев В.В., Москва: ГЭОТАР-Медиа, 2018

SOFTWARE:

1. Microsoft Office 2016+ ()

LMS AND ONLINE RESOURCES

1. http://www.dermatology.ru/ ()

2. http://dermline.ru/ ()

3. http://www.vestnikdv.ru/ ()

https://online.mephi.ru/

http://library.mephi.ru/

9. LOGISTICAL SUPPORT

1. Иное оснащение, предусмотренное порядками оказания медицинской помощи по соответствующему профилю (Клиническая база)

2. Дерматоскоп (64-301)

3. Лампа Вуда (64-301)

4. Персональный компьютер: Процессор CPU Intel Core i7-8700 (3.2GHz/12MB/6 cores) Материнская плата Gig (Клиническая база)

5. Мышь, клавиатура (Клиническая база)

6. Проектор SMART P109 (Клиническая база)

7. Видеокамера Microsoft LifeCam Cinema HD (Клиническая база)

8. Монитор (Клиническая база)

9. Кушетка смотровая (Клиническая база)

10. Тренажеры базовых хирургических навыков с имитацией кожи (64-403)

10. EDUCATIONAL AND METHODOLOGICAL RECOMMENDATIONS FOR STUDENTS

Lecture:

Writing a lecture note: briefly, schematically, consistently record the main points, conclusions, formulations, generalizations; mark important thoughts, highlight keywords, terms. Checking terms, concepts using encyclopedias, dictionaries, reference books with writing out the interpretations in a notebook. Designate questions, terms, material that causes difficulties, mark and try to find the answer in the recommended literature. If it is not possible to understand the material on your own, it is necessary to formulate a question and ask the teacher at a consultation, at a practical lesson.

Independent work:

Each student must individually prepare for the topics of the discipline by reading lecture notes and recommended literature. Independent work allows the student to think in a calm environment, to deal with information on the topic, if necessary, to refer to reference literature. Careful reading and repetition of what has been read helps to fully master the content of the topic, to structure knowledge.

In order to memorize the substantive information on the discipline for a long time, it is advisable to study it in stages - by topics and in strict sequence, since subsequent topics, as a rule, rely on the previous ones. That is why most of the independent work involves preparation for seminars, completing tasks recommended for solving, preparation for colloquiums, completion and defense of individual homework, as well as preparation for laboratory work. To successfully complete these tasks, each student has the opportunity to use the developed

In order to ensure that the content of the discipline is remembered for a long time, it is advisable to study it in stages, by topic and in a strict sequence, as subsequent topics usually build on previous ones. This is why most of the independent work involves preparing for seminars, solving recommended problems, preparing for colloquiums, completing and defending individual home assignments, and preparing for laboratory work. To successfully complete these tasks, each student has the opportunity to use the methodological support developed by the department.

It is best for students to plan the time they will spend on independent study of this discipline for the entire semester, with regular review of the material. The material covered in lectures should be regularly supplemented with information from the literature sources listed in the course syllabus. For each of the topics for independent study listed in the course syllabus, students should first read the recommended literature and, if necessary, create a brief summary of the main concepts, terms, and information that needs to be memorized and is essential for understanding the topic and proceeding to the next sections of the course. It is recommended to use Internet resources to expand knowledge in the discipline.

When working independently, it is recommended to make notes on the material being studied (worked on). The notes can be basic, containing only the main key points, but still sufficient to provide a complete answer to the question. The notes can also be detailed. The length of the notes is determined by the student themselves.

When working with academic or scientific literature, it is recommended that the student make notes as they read, either in the form of a simple or detailed outline, or by writing down key points or preparing summaries of what they have read. These notes can earn additional points for active participation.

When preparing for a practical lesson, it is necessary to refer to the lecture notes, sections of textbooks, and study guides in order to gain a general understanding of the topic's place and significance in the course being studied.

Then, work with additional literature and make notes based on the recommended sources. During the study of the recommended material, it is important to understand the structure of the topic, identify the main points, and follow their logic in order to gain insight into the essence of the problem being studied. It is necessary to keep notes of the material being studied in the form of a summary,

which, along with visual memory, also includes motor memory and allows you to accumulate an individual fund of auxiliary materials for quickly repeating what you have read and mobilizing your accumulated knowledge.

The key stage of practical training is students' independent work on mastering practical skills in simulated conditions, at the patient's bedside, in the functional diagnostics room, and other settings. Depending on the specific topic of the lesson, the student independently or under the supervision of an instructor interviews the patient, conducts a clinical examination, participates in instrumental diagnostics, and studies the results of additional examinations. They then summarize the data, present it as fragments of the patient's medical history, and report the findings to the instructor. The achievements of each student are individually assessed, taking into account the level of development of practical skills and their theoretical foundations.

Clinical case discussions of specific patients are conducted for the entire group or through students' participation in clinical case studies and periodic scientific and practical conferences at medical institutions where practical training is conducted. During these discussions, the instructor evaluates each student's active participation and clinical reasoning abilities.

Students solve situational problems proposed by the instructor, which develop clinical thinking and require the application of knowledge acquired in various specialty subjects.

The educational process extensively utilizes active and interactive forms of conducting classes, including work in small groups, creative activity stimulation, the use of computer-based training programs, and conference-style sessions.

The instructor monitors students' independent work, including the preparation of research papers, scientific work, patient interaction under supervision, interpretation of additional research data, and completion of medical documentation.

When managing patients and recording fragments of medical history, the following algorithm should be followed when describing the local status:

Local Status (Status Localis)

1. Nature of skin lesions: inflammatory-acute, chronic, dystrophic, subacute.
2. Quantity of rash: abundant, scarce, isolated eruptions, single focus.
3. Localization of rash: predominant areas, less affected areas, rash-free areas.
4. Symmetry (asymmetry) of the rash.
5. Monomorphism (polymorphism) of the rash.
6. Rash elements (primary, secondary):

a) size (range, predominant size);
b) shape (flat, hemispherical, conical);
c) outlines (round, oval, polygonal, irregular);
d) borders (sharp, indistinct);
e) color (primary, shades);
f) surface (smooth, rough, bumpy with central depression);
g) consistency (soft, dense, woody, elastic-dense, somewhat dense);
h) other characteristics.

7. Mutual arrangement of elements: uniform, non-uniform, grouping, merging, isolation.
8. Diagnostic phenomena.
9. Mucous membranes.
10. Hair.

11. Nails.

12. Subjective sensations: nature, severity, fluctuations throughout the day.

Control Work

The control work involves familiarizing oneself with the main and additional literature, including reference publications and foreign sources. Students are required to take notes of key provisions, terms, and information necessary for memorization and fundamental to the topic. They must also compile annotations for the literature reviewed.

Scoring System

The control work is worth 10–15 points (or 20–25 points). Each question is worth 1 point (or 2 points).

Topics

The topics are specified according to the particular section being studied.

Answer Requirements

A clear, detailed response is required (worth 2 points per task) or selecting the correct answer in a test question (worth 1 point per task).

Research Paper

The research paper involves: searching for literature and compiling a bibliography, using 3 to 5 scientific works, presenting the authors' opinions and the student's own judgment on the chosen topic, outlining the main aspects of the problem

Exam/Test Preparation

When preparing for the exam/test, students should rely on lecture notes, recommended literature, and other study materials.

Grading Requirements and Evaluation Criteria:

Grade "Excellent" (45–50 points) is awarded for: correct, comprehensive, and logically structured answer; proficiency in using specialized terminology; ability to illustrate theoretical concepts with practical examples.

Grade "Good" (35–44 points) is awarded for: correct, comprehensive, and logically structured answer with minor errors or inaccuracies; proficiency in using specialized terminology; incomplete or insufficiently comprehensive conclusions and generalizations.

Grade "Satisfactory" (30–34 points) is awarded for: schematic, incomplete answer; inability to use specialized terminology or lack of knowledge of it; one major error.

Grade "Fail" (<30 points) is awarded for: answers to all test questions containing major errors; inability to use specialized terminology; inability to provide examples of practical application of scientific knowledge.

Exam Admission Requirements:

Admission to the exam requires more than 30 points

During the semester, a student can accumulate between 30 and 50 points

Minimum score for exam response: 30 points

Maximum score for exam response: 50 points

11. EDUCATIONAL AND METHODOLOGICAL RECOMMENDATIONS FOR TEACHERS

During practical classes, students are monitored for their assimilation of lecture material, patients are supervised, and practical skills are monitored.

To demonstrate and train practical skills, visual aids, surgical instruments, training devices, simulators of devices, or demonstrations of ophthalmological manipulations in real conditions are used. To assess their clinical thinking abilities, students are offered situational problems, clinical histories, test assignments, case studies, and attendance at medical conferences, consultations, and scientific symposia.

Active and interactive forms of conducting classes are widely used in the educational process (work in small groups, activation of creative activity, use of computer training programs, lesson-conference).

The teacher controls the independent work of students, preparation of reports, research work, work with the patient together with the teacher, interpretation of data of additional research methods, filling out medical documentation.

Work with educational literature is considered as a type of educational work and is carried out within the hours allocated for its study. Each student is provided with access to the electronic library funds of the Institute and the Department.

Training students contributes to the development of their skills in communicating with patients, taking into account ethics and deontology.

Independent work helps to develop skills in working with patients, working with literature, analytical thinking, filling out documentation, and being neat and disciplined.

The initial level of students' knowledge is determined by testing, and the current control of subject acquisition is determined by oral questioning during classes, during clinical reviews, when solving typical situational tasks and answering test assignments.

At the end of the study of the academic discipline, intermediate and final control of knowledge is carried out using test control, checking practical skills and solving situational tasks.

A key stage of the practical lesson is students' independent work on mastering practical skills: in-simulated conditions, at the patient's bedside, in the functional diagnostics room, etc. Depending on the specific lesson topic, the student independently (or under the instructor's supervision) interviews the patient, conducts a clinical examination, is present during instrumental diagnostics, and studies the results of additional studies, summarizes the data, presents it as fragments of the patient's medical history, and reports the results to the instructor.

Achievements are assessed individually for each student, based on the degree of development of practical skills and their theoretical foundations.

Clinical case studies of specific patients are conducted for the entire group or through students' participation in clinical case studies and periodic scientific and practical conferences at the medical institutions where their practical training takes place. During these case studies, the instructor evaluates each student's active participation and clinical reasoning skills.

Solving situational problems proposed by the teacher, which develop clinical thinking and force the student to use knowledge gained in various subjects of the specialty.

Grading and criteria for tests, open-ended answer assessments, homework, and the final test:

1. Tests are graded according to the scheme: 1 point – 1 correct answer. If a student did not attempt the work: (-1) point.

2. Open-ended answer assessments are graded according to the scheme: complete answer – 2 points, incomplete answer – 1 point, no answer – 0 points. If a student did not attempt the work: (-2) points.

3. Homework must be completed by all students to be admitted to the final assessment. For work submitted late, a deduction of (-1) point from the final grade is applied.

4. Criteria for evaluating a presentation report. Conversion from a 100-point scale to a 10-point (5-point) scale is applied.

5. Criteria for evaluating an essay. Maximum score is 10 points. Conversion to a 5-point scale is possible.

10 points are awarded if all requirements for writing the essay are met: the problem is identified and its relevance is justified; a brief analysis of the problem is provided and a personal position is logically presented; conclusions are formulated; the source material is fully analyzed; the required length is maintained; formatting requirements are met.

9 points are awarded if the following requirements for the essay are met: the problem is identified and its relevance is justified; a brief analysis of the problem is provided and a personal position is logically presented; conclusions are formulated; the source material is fully analyzed. However, the required length is not maintained and/or formatting requirements are not met.

8 points – the main requirements for the essay are met, but minor shortcomings are present. Specifically, there are inaccuracies in the presentation of the material; a logical sequence in reasoning is absent; the required essay length is not maintained; there are omissions in formatting.

7 points – the main requirements for the essay are met, but the following shortcomings are present: there are inaccuracies in the presentation of the material; a logical sequence in reasoning is absent; conclusions are not formulated; the required essay length is not maintained; there are omissions in formatting.

6 points – there are significant deviations from the essay requirements; the topic is only partially covered; factual errors in the content are present; conclusions and a personal viewpoint on the problem are absent.

5 points – there are significant deviations from the essay requirements: the topic is only partially covered; factual errors in the presentation of materials and methods are present; conclusions and a personal viewpoint on the problem are absent; the required format is not maintained.

4 points – there are significant deviations from the essay requirements: the relevance of the topic is not revealed; factual errors in the presentation of materials and methods are present; conclusions and a personal viewpoint on the problem are absent; the required format is not maintained.

3 points – analysis of the topic's relevance, applied approaches, and methods is absent, while the formal length requirement for the essay is met.

2 points – the essay topic is not addressed, a substantial misunderstanding of the problem is evident. However, the formal length and formatting requirements are fulfilled.

1 point – the essay topic is not addressed, a substantial misunderstanding of the problem is evident.

0 points – the essay was not submitted by the student.

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