

DERMATOVENEROLOGY	
GENERAL INFORMATION	
Course coordinator	Associate Professor Darko Biljan, MD, PhD
Assistant/Associate	Assistant Professor Melita Vukšić Polić, MD, PhD Marina Vekić Mužević, MD, PhD
Study Programme	Integrated undergraduate and graduate university study of Medicine
Status of the course	Mandatory
Year of study, semester	4 th year; 8 th semester
ECTS	4
Workload (hours)	Lectures (41); Seminars (21); Exercises (18)
Expected number of students	70
COURSE DESCRIPTION	
Course objectives	
<p>Acquisition of knowledge and skills in all areas of dermatovenerology, which are listed in today's mandatory textbook. Development of general and specific competencies needed by a general practitioner in daily work in solving dermatovenerological problems. Emphasis on the issues that a general practitioner faces in his daily work is clearly highlighted during lectures, seminars and exercises. At the same time, this issue is clearly highlighted in the clinical skills booklet, which is still in force. Please see the content of lectures, seminars and exercises in the implementation lesson plan, which we prepare in detail for each academic year.</p> <p>Different critical approaches to literature are clarified through the seminar part of the material in the active presentation of the material and mutual exchange of opinions. Furthermore, spoken communication skills are developed when presenting solutions to various problems.</p> <p>The exercises are designed so that the student acquires new skills through practical work with the patient by familiarizing himself with the most common skin diseases, while the clinical skills booklet is a kind of guide. Adequate communication with the patient, the ability to think creatively and critically, as well as a sense of ethics and responsibility by drawing conclusions based on the obtained anamnestic and clinical data are practiced.</p>	
Enrolment requirements and entry competencies	
Attended and passed exams of the previous academic year.	
Learning outcomes at the Programme level	
1.2, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 4.1, 4.2	
Learning outcomes (5-10)	
<p>Cognitive domain - knowledge:</p> <p>After passing the exam, the student will be able to:</p> <ol style="list-style-type: none"> 1. Describe the characteristic clinical pictures of certain dermatovenerological diseases and establish a differential diagnosis based on them 2. List and describe the etiological and epidemiological features of certain dermatovenerological diseases 3. List and describe the pathophysiological mechanisms of certain dermatovenerological diseases 4. List and describe the types and methods of diagnostic treatment of individual dermatovenerological patients 	

5. List and describe the methods of treatment of certain dermatovenerological diseases
6. List and outline the prevention measures for certain dermatovenerological diseases
7. Know the indications, contraindications, side effects and method of application for certain dermatovenerological diseases for drug groups as well as individual drugs
8. Primary and secondary prevention of certain dermatovenerological diseases
9. On the basis of all the above, arrive at a diagnosis of a particular dermatovenerological disease

Course content

In the content of the course, in a theoretical sense, all segments that normally belong to the field of dermatovenerology propaedeutics, as well as all segments from special areas of dermatovenerology, are covered. These segments in the mandatory textbook are designed in such a way that the theoretical part of our subject is in harmony with the essential principles that apply in pathological anatomy, pathophysiology and internal medicine.

Basics of characteristic clinical pictures of certain dermatovenerological diseases.

Basic principles:

Propedeutics:

1) General instructions on teaching in dermatovenerology, 2) Review of basic data on the history of dermatovenerology (definition and history of dermatovenerology), 3. Review of basic data on the structure, function and development of the skin, 4) The most important pathological changes in the skin, namely: the epidermis (hyperkeratosis, orthohyperkeratosis, parakeratosis, dyskeratosis, apoptosis, agranulosis, acanthosis, acantholysis, spong. pustule, hydropic degeneration of the basal layer, pigment incontinence, exocytosis; b) dermis (papillomatosis, solar elastosis, inflammatory infiltrate, thickening of the basement membrane, vasculitis), and c) subcutis (inflammatory infiltrate, panniculitis); 5) Disorders of embryonic skin development, namely: aplasia cutis congenita, pseudoainhum (early rupture of the amnion), cutis verticis gyrata, branchial cysts and fistulas, polythelia), 6) System of skin efflorescences (primary and secondary, with a schematic representation of primary efflorescences), 7) Basic principles of dermatological diagnostics (anamnesis, dermatological status, more important laboratory diagnostic methods - basic notes; see: special diagnostic methods, P-3), 8) Presentation of efflorescences on more common skin diseases, along with dia-casuistry, which includes the following points, namely: a) localization of efflorescence: predilection, inverse, symmetrical and asymmetrical localization; b) spread of efflorescence (per contactum, lymphogenous, hematogenous); c) terms: dissemination of efflorescence, eruptive phenomena of efflorescence, exanthema; d) appearance of foci: gyrate, serpiginous, annular, corymbiform, circinar, linear, e) phenomenon of isomorphic stimulus. 9) Special diagnostic methods: "in vivo" allergy tests (epicutaneous test, "photopatch test, intradermal test, "prick test", "scrath test", conjunctival test, "in vitro" allergy tests (TBTL, Schelley test, RIST, GROWTH, other) and mycological, bacteriological (including *Treponema pallidum* in this field), virological and serological, pathohistological, immunofluorescence, immunocytological, immunohistochemical and electron microscopic examination, further "in-situ-hybridization" and PCR (DNA sequences), sonography, dermatoscopy, and photography, 10) Dermatological therapy, namely: I) local therapy; a) clinical morphology and choice of topical forms; b) about the bases; c) topics according to the type of action; d) Rp for some magisterial preparations (mixture agitanda, oil, paste, ointment); e) local corticosteroid therapy (grading, desired and unwanted effects of corticosteroids, tactics in local corticosteroid therapy); II) Physical therapy: cryotherapy (cryosurgery), electrotherapy (electrolysis, galvanocaustic or electrocautery, electrocoagulation, natural light therapy - sun therapy (heliotherapy, heliothalassotherapy, heliobalneo-therapy), therapy with artificial light sources (UVB, UVB + UVA, PUVA, Re PUVA, PUVA – bath), laser and photodynamic therapy and ionizing therapy (soft x-rays); III) Surgical therapy (excisional and

incisional biopsy, transplantation procedures - basic), bioocclusive wound care, nail surgery, chemical peeling, hair transplantation, sclerosing therapy, application of implants, liposuction, dermabrasion; IV) Systemic therapy: antibiotics, glucocorticoids, retinoids, cytostatics and immunosuppressants, non-steroidal antiphlogistics, antivirals, antimycotics, antihistamines, dapson, cytokines.

Special dermatology and venereology ((including: dermatological oncology and sexually transmitted diseases, STD)

Infectious and parasitic diseases of the skin: 1) Infections of the skin and mucous membranes with human papilloma viruses: verrucae vulgares, verrucae planae juveniles, epidermodysplasia verruciformis; (Condylomata acuminata: see Venereology, Genital infections caused by human papilloma virus); 2. Other viral skin diseases: molluscum contagiosum, tubercula mulgentium, herpes simplex, herpes zoster, HIV/AIDS. 3) Bacterial purulent infections of the skin (pyoderma); a) on different approaches to the classification of pyodermas (e.g. primary and secondary, according to the depth of the pathological process, or according to the involvement of skin adnexa; this last division seems the most acceptable to us, and according to such a division, pyodermas are divided into epidermal and follicular pyodermas and into pyodermas of sweat glands) ; a) epidermal pyoderma: impetigo, dermatitis exfoliativa neonatorum, angulus oris infectiosus (streptogenes); b) follicular pyoderma: ostiofolliculitis, folliculitis (all forms), furunculus et carbunculus, chordeolum; c) pyoderma of sweat glands: hidradentis suppurativa (see also acne inversa); d) bacterial skin diseases of a special course and appearance: erysipelas, ecthyma, phlegmone, erythrasma, actinomycosis; e) bacterial diseases from the group of zoonoses (basically): erysipeloid, anthrax. 4) infectious granulomatous diseases: tuberculosis cutis; 5) Skin infections caused by protozoa: leishmaniasis; 6) skin infections caused by fungi (dermatomycosis); 7) dermatomycoses caused by yeasts and fungal saprophytes: candidosis, pityriasis versicolor; 8) skin diseases caused by Lyme borreliosis: erythema chr. migrans, acrodermatitis chr. atrophicans. 9) chronic pyoderma: concept; 10) Parasitic skin diseases: pediculosis (corporis, capitis, pubis), scabies, larva migrans (short); 11) ictus inesciti et reactio allergica post ictum insecti.

Erythematous, erythematousquamous and papular dermatoses: 1) erythematous dermatoses: erythema exsudativum multiforme, erythema nodosum, pityriasis rosea; 2) erythemato-squamous dermatoses: psoriasis non pustulosa (psoriasis vulgaris, psoriasis erythrodermica); psoriasis pustulosa (psoriasis pustulosa generalisata, psoriasis pustulosa palmaris et plantaris, psoriasis cum pustulatione, impetigo herpetiformis, arthritis psoriatica, pityriasis rubra pilaris; erythroderma (all forms); 3) papular dermatoses: lichen planus, medicinal lichenoid exanthemas.

Vesicular, bullous and pustular dermatoses: a) group of hereditary bullous epidermolysis (EBH): EBH simplex, EBH- «junctional type», EBH dystrophica; prenatal diagnosis of EBH; b) pemphigus group; pemphigus vulgaris and brief information on other forms of pemphigus; c) pemphigoid group: pemphigoid bullosus, dermatitis herpetiformis, herpes gestationis; d) pustular dermatoses: pustulosis palmoplantaris, pustulosis subcornealis.

Diseases of connective and subcutaneous fatty tissue (panniculitis) from a dermatological point of view: introductory notes on the development and structure of connective tissue in the skin, and models of connective tissue damage (molecular defects, atrophy, solar elastosis, fibrinoid necrosis, fibrilloneogenesis, fibromatosis); organization of subcutaneous fat tissue. Presentation of individual diseases, according to groups: 1) hereditary connective tissue disorders: Ehlers-Danlos Cutis laxa syndrome (including the acquired form - dermatochalasis); 2) skin atrophy (acquired): striae distensae, atrophia cutis senilis; 3) disorders of elastic fibers: elastosis actinica (photoaging, elastosis senilis), cutis rhomboidalis nuchae, elastosis nodularis cystica et comedonica milium colloidal, lichen sclerosus et atrophicus: collagenosis (scleroderma circumscripta, scleroderma systemic, lupus erythematosus (discoides et systemic), dermatomyositis/ polymyositis, Sharp syndrome

(mixed collagenosis); 5) connective tissue diseases of completely unknown etiopathogenesis (fibromatosis): induratio penis plastica, Dupuytren's contracture, Heberden's nodules.

I) Diseases of hair and scalp and nails. II) Skin changes during pregnancy (gestational dermatosis).

I): a) development, structure, hair growth and hair types; trichogram; b) exogenous hair damage (trichoptilosis and trichoclasia); c) hair color disorders (heterochromia, poliosis, canities); d) disorders in hair growth (hypertrichosis, hirsutismus); e) alopecia, hypotrichosis and atrichia; f) scarring (cicatricial alopecia) and pseudopellets; g) progressive non-scarring alopecia (androgenetic alopecia in men, androgenetic alopecia in women); h) temporary (reversible) non-scarring alopecia (alopecia areata, trichotillomania); i) effluvium and non-scarring diffuse alopecia. Nail diseases: 1) structure and function of nails; 2) Congenital nail disorders (unguis dystopicus, pterygium unguis); 3) Changes of the nail plate (onychoschisis, onychorrhexis, onycholysis, onychotillomania, onychodystrophia, leukonychia, onychogryphosis, koilonychia, platonychia, onychodystrophia canaliformis mediana, Beau's and Muehrcke's furrows); 4) Changes in nail color (only brown or black-brown discoloration); 5) Psoriasis vulgaris, lichen planus, dermatitis e contactu chronica allergica et non allergica, necrolysis epidermalis toxica, pemphigus vulgaris, pemphigoi bullosus, EBH, SLE, dermatomyositis, sy Raynaud, chronic pulmonary disease - Hippocrates noktu, "half and half nails"; 6) Acquired nail damage and subungual and periungual tumors (subungual hematoma, unguis incarnatus, melanoma acrolentiginosum, carcinoma planocellulare, glomus tumor, Koenen's tumors, mb. Bowen, verrucae vulg., keratoacanthoma). II) Skin changes during pregnancy: a) physiological changes (pigmentation, changes in hair, changes in connective tissue, changes in blood vessels); b) Pathological changes or changes specific to pregnancy (cholestasis or pruritus gravidarum; impetigo herpetiformis, see Psoriasis pustulosa; herpes gestationis: see Vesicular, bullous and pustular dermatoses).

Dermatological oncology: 1) cysts and sinuses; 2) nevi (non-melanocytic and melanocytic) 3) benign tumors: epidermis, skin adnexa, connective, muscle, nerve, cartilage and fatty tissue, nevoid changes (epidermal and organoid nevi and fatty and connective tissue nevi); 4) Benign vascular tumors, 5) obligate precancers (ca in situ): keratosis actinica (k. solaris, k. senilis), cornu cutaneum, arsenic keratosis, irradiation keratosis, tar keratosis, cheilitis actinica; mb. Bowen, erythroplasia Queyrat,* mb. Paget (mammary form; intraductal carcinoma), *mb. Paget (extramammary form), facultative precancers (chronic fistulizing processes, e.g. collivative TB, osteomyelitis, atrophic scars - TB, DLE, dystrophic EBH - basic); addition of precancerous lesions: leukoplakia; malignant epithelial tumors and insufficiently clear changes that are sometimes classified as verrucous carcinoma (ca verrucosum) and pseudocarcinomatous hyperplasia (keratoacanthoma), malignant epithelial tumors (carcinoma basocellulare, Gorlin-Goltz syndrome, carcinoma planocellulare corneum, malignant tumors of soft tissues and blood vessels (fibrosarcoma, dermatofibrosarcoma protuberans, sarcoma idiopathicum haemorrhagicum multiplex-Kaposi and basically about: histiocytoma malignum fibrosum, fibroxanthoma atypicalum; mastocytosis (introduction about mast cells, urticaria pigmentosa, mastocytoma; histiocytic skin diseases (histiocytosis X, xanthogranuloma juvenile).

Intolerance reactions: 1) medicinal eruptions: exanthema medicamentosum, necrolysis epidermalis toxica - «medication related Lyell syndrome», medicinal lichenoid exanthemas: see Lichen planus; 2) urticarial group of diseases: immunologically determined urticaria, contact urticaria and non-immunologically determined (physical) urticaria; angioedema (Quincke seu angioneuroticum), angioedema hereditarium; hypersensitivity to bee and wasp stings; anaphylactic shock; about the possibilities of desensitization, 3) Contact dermatitis and diseases called eczema: dermatitis e contactu non allergica (acuta et chronica); Special forms of acute non-allergic contact dermatitis: dermatitis ammoniacalis and dermatitis intertriginosa. Dermatitis e contactu allergica (acuta et chronica), dermatitis e contactu professionalis, and dermatitis eczematoides nummularis, 5) Atopy:

overview of basic data on atopy, dermatitis atopica (adultorum, lactentium, infantum), 6) Hypersensitivity to pollen, 7) Overview of basic data information about the term allergy.

"Sexual diseases" (more precisely: sexually transmitted diseases, STDs) and diseases of the external genitalia. (The name "venereal disease" was left because of the traditional name among the people).

II) Diseases of the external genitalia. I: STD; a) introduction and definition of venereal diseases; b) genital infections caused by the "human papilloma" virus (condylomata acuminata): papulosis bowenoides (see: Diseases of the external genitalia); c) syphilis (primary, secondary stage, latent syphilis, tertiary stage, conatal syphilis-recens, tarda and latent, syphilis endemica); laboratory diagnosis of syphilis; indications for cerebrospinal fluid search; syphilis therapy, serological controls after completion of therapy; criteria for curing syphilis; Jarrisch - Herxheimer's reaction; d) gonorrhoea; e) ulcus molle, lymphogranuloma venereum and granuloma inguinale: causative agent, incubation, clinical picture (brief), dg, th.; f) urethritis non specifica: non-infectious, infectious (caused by chlamydia and mycoplasma), trichomoniasis; g) mb. Reiter (briefly). II) a) Diseases of the external genitalia in men: peculiarities of the skin of the genital area in men; congenital disorders: heterotopia glandularum sebacearum, papillae coronae glandis; penile changes: phimosis et paraphimosis, terms - balanitis, posthitis, balanoposthitis; balanoposthitis acuta et chronica, special forms of balanoposthitis (b. circinata, b. chr. circumscripta benigna plasmacellularis - Zoon); premalignant and malignant conditions: papulae bowenoides, mb. Bowen, erythroplasia Queyrat, leukoplakia), term PIN (penile intraepithelial neoplasia), ca invasive, mb. Paget – extramammary form; destructions: lichen sclerosus et atrophicus, gangrene Fournier; scrotal changes; pruritus scroti, angiokeratoma scroti; more frequent dermatoses: psoriasis vulgaris, lichen planus b) Diseases of the external genitalia in women: peculiarities of the skin of the genital area in women; congenital disorders: heterotopia ch. seb., papillae vestibulares; changes in the vulva: vulvitis, vulvovaginitis (non-infectious; infectious; vaginitis non specifica, v. candidomycetica, vaginitis e contactu; ulcus vulvae acutum (mb. Behcet), edema vulvae, vulvodinia, pruritus vulvae; destruction: lichen sclerosus et atrophicus; premalignant and malignant conditions: erythroplasia Queyrat, mb. Bowen, papulae bowenoides leukoplakia), term VIN (vulvar intraepithelial neoplasia), ca invasivum, mb. Paget - extramammary form; more common dermatoses: psoriasis vulgaris, lichen planus.

Mode of teaching

Lectures; Seminars; Exercises

Student obligations

Students are expected to attend all class sessions, as well as to take all the examinations. However, they are allowed for excused absences, totalling 30% of all classes. Undone exercise must be graded.

Monitoring student work (*alignment of learning outcomes, teaching methods, and grading*)

Method of taking the exam:

The exam consists of a practical and a theoretical part.

Practical part:

Teaching activity	ECTS	Learning outcome	Student activity	Assessment methods	Grade points	
					Min.	Max.
Attending classes (lectures and seminars)	0.5	1-9	Attendance at classes	Evidence sheet; evaluation	5	15
Written exam	0.5	1-9	Learning for the written exam	Grading of the written exam	15	25
Oral exam	3.0	1-9	Learning for the oral exam	Oral exam	18	36
Total	4.0				50	100

- anamnesis, dermatological status and working diagnosis in one patient and/or several virtual patients, differential diagnosis based on images of the disease.

- in this part, short questions (by simulating the practical situation in which a general practitioner often finds himself) are checked in order for the student to practically solve the problem of frequent and important diseases that the general practitioner encounters (special reference to the most common diseases as well as the most omissions and mistakes in dermatovenerology);

- a special practical part is the schematic drawing of healthy and psoriatic skin, and on this model, the basic settings of the structure, physiology and pathology of the skin are checked, as well as the writing of basic master's preparations. The time required for this type of exam is from 15 to a maximum of 45 minutes, depending on the complexity of the status.

Passing the practical part of the exam is a condition for access to the theoretical part of the exam.

Theoretical part of the exam: the student receives a total of 5 questions (from all areas of dermatovenerology). All questions are marked with a number.

Evaluation of the obligations of female and male students:

There is a colloquium test that contains a total of 45 questions. Access to that colloquium is optional, and students who pass that colloquium in the theoretical part of the exam do not get questions from that area that is represented in the test. A negative grade on the test is not entered in the index or in any other documentation of the student, but the record of the test result is kept by the head of the course.

Formation of the final grade:

Excellent - complete answer with understanding to all the questions asked

Very good - not a complete answer with understanding to some of the questions asked (especially to fundamental, practical or frequent and important cases in general practice)

Good - not a complete answer with understanding to most of the questions asked

(note: the examiner decides whether the student for the grade is very good and good did not answer a question correctly, which every student who passed the exam would have to answer!

Sufficient - it depends on the examiner's judgment whether the student has the minimum knowledge of the issues listed above and will still be able to help the patient in practice in the most common cases.

Insufficient - if the student does not have the minimum knowledge of the issues listed above, and especially if he does not know the essential, fundamental principles as well as the practical solution of important and frequent diseases encountered in general practice (all of this is emphasized in lectures, seminars and exercises).

Formation of the final grade:

The grades obtained during the class are joined by the points obtained in the oral exam. Grading is done by absolute distribution, i.e. based on the final achievement and is compared with the numerical system as follows:

A – excellent (5): 90-100 evaluation points; B – very good (4): 80-89.99 grade points; C – good (3): 70-79.99 grade points; D – sufficient (2): 55-69.99 grade points

Required reading (available in the library and through other media)

Title	Number of copies in the library	Availability through other media
1. Dobrić I, ur.: Dermatovenerologija, III. promijenjeno i dopunjeno izdanje, Grafoplast, Zagreb 2005.	19	

Additional reading

1. Hall JC, ur.: Sauer's Manual of Skin Diseases, IX. Izdanje, Lippincott Williams&Wilkins, Philadelphia 2006.
2. Šitum M, ur: Dermatovenerologija Medicinska naklada , Zagreb 2018.

Course evaluation procedures

Anonymous, quantitative, standardized student survey providing feedback on the course as well as on the work of course coordinators and their assistants/associates is being conducted by the QA Office of the Faculty of medicine Osijek.

Note /Other

E-learning does not count towards course contact hours, but is being used in teaching and comprises links to various web pages, as well as video and audio materials available on web pages.