CURRICULAR PROGRAM

Course title: **Dermatovenerology**
Course code:  **S.11.0.085**
Specialty: **Medicine**
Specialty code: **1701**
Faculty: **Medicine nr.2**
Department: **Dermatovenerology**
Year: **VI, semester: 11**
Course type: **Required discipline**
   Total hours – 70
   Including lectures – 20 hours, practical studies – 50 hours
Exam: **semester 11th**
Total number of course credits: **3**
Course in charge persons:  
   **Dr. Assoc.Professor Mircea Bețiu**  
   **Dr. Assoc. Professor Vladislav Gogu**

Chisinau 2011

*Dermatovenerology Course Purpose:*
Learning about some dermatoses and sexually transmitted infections (STIs) with high rates of morbidity and obtaining basic skills in the field of management of patients with these pathologies.

**Training objectives for Dermatovenerology course:**

**At the cognition and understanding level:**
- to understand the theoretical bases of modern Dermatovenerology;
- to identify the anatomo-physiological and pathological features of cutaneous organ and of lower genitourinary tract;
- to identify basic cutaneous lesions;
- to be able to know clinical and paraclinical diagnostic criteria of skin diseases and STIs;
- to be able to know principles of general and local treatment applicable in dermatovenerology;
- to able to reproduce the information related to prevention of cutaneous and sexually transmitted diseases;
- to know evolutional particularities of dermatoses related with age.

**At the practice level:**
- to obtain and record the case history, and appreciate the functions of the skin and lower genitourinary tract;
- to examine the skin, hair, nails, mucous membranes and genitalia using special tests and procedures;
- be able to use practical skills for diagnosis and treatment of patients with dermatological and sexually transmitted diseases;
- to evaluate the results of clinical, laboratory and instrumental investigations;
- to approve the prescribed treatment;
- to be able to correctly interpret the data recorded in the medical file.

**At the level of integration:**
- to appreciate the importance of dermatology as part of general medicine;
- to develop the knowledge of interrelation between dermatology and connected medical specialties;
- to posses the abilities to implement and integrate the acquired knowledge for the management of patients with skin and sexually transmitted diseases;
- to be able to objectively assess the own knowledge in Dermatovenerology;
- to able to learn new methods of diagnosis and treatment in Dermatovenerology.

**Conditions and Demands Required**
The Dermatovenerology is a clinical discipline, a part of Internal Medicine, studying it at the University level by future doctors, permits to understand and explore the principles of management of patients with skin and sexually transmitted diseases. Dermatovenerology has close interdisciplinary connection in the context of high medical education. In this way, knowledge, in the field of Dermatovenerology, contribute to the formation of holistic health concept and complex applicative skills. For good results in learning Dermatovenerology are required knowledge in the field of following disciplines:

- Basic subjects: Anatomy; Histology, Citology and Embriology; Physiology and medical rehabilitation; Biochemistry and clinical biochemistry; Molecular biology and human genetics; Microbiology, virology and immunology;

- Pre-clinical subjects: Pathophysiology and clinical pathophysiology; Morfophatology; Pharmacology and clinical pharmacology; Internal medicine – semiology; General Surgery – semiology; Pediatrics – semiology and puericulture;

- Clinical subjects: Internal medicine; Obstetrics and ginecology; Surgery; Pediatrics; Urology; Neurology; Oftalmology; Otorinolaryngology; Pneumophtysio-logy; Endocrinology; Hematology and Oncology; Infectious diseases; Epidemiology.

**Content of the Course:**

**A. Lectures**

<table>
<thead>
<tr>
<th>Nr.</th>
<th>Topic/Theme</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Introduction into speciality. Anatomy and histology of the skin. Physiology of the skin. The methodology of dermatological examination.</td>
<td>2</td>
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<tr>
<td>2.</td>
<td>Pyodermas. Parasitic skin diseases. Lyme disease.</td>
<td>2</td>
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<tr>
<td>3.</td>
<td>Mucocutaneous mycosis.</td>
<td>2</td>
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<tr>
<td>4.</td>
<td>Psoriasis.</td>
<td>2</td>
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<tr>
<td>5.</td>
<td>Chronic cutaneous lupus erythematosus. Localized scleroderma (Morphoea).</td>
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<tr>
<td>6.</td>
<td>Eczema.</td>
<td>2</td>
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<tr>
<td>7.</td>
<td>Pemphigus. Dermatitis herpetiformis Duhring.</td>
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<td>8.</td>
<td>Syphilis.</td>
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</tbody>
</table>
9  Malignant neoplastic disorders of the skin: skin cancer (basal cell carcinoma, squamous cell carcinoma, melanoma); sarcomas (Kaposi sarcoma); primary cutaneous T-cell lymphoma (mycosis fungoides).

10 Mycobacterial infections of the skin (tuberculosis, leprosy).

**B. Practical lessons**

<table>
<thead>
<tr>
<th>Nr.</th>
<th>Topic/Theme</th>
<th>Total hours</th>
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<tbody>
<tr>
<td>1.</td>
<td><strong>The methodology of dermatological examination:</strong></td>
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<tr>
<td></td>
<td>• General examination and physical examination of the skin</td>
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<td>(primary skin lesions: macule, papule, nodule, vesicle, bulla, pustule,</td>
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<td></td>
<td>wheal; secondary skin lesions: secondary macules, scale, crust, fissure,</td>
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<td>erosion, ulceration, scar, excoriation, vegetation, lichenification).</td>
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<td>• Laboratory diagnosis (direct microscopic examination, culture on</td>
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<td>Sabouraud’s medium, Wood’s light examination, Tzanck smear, skin biopsy,</td>
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<td>imunofluorescence microscopy, skin tests to suspected allergens, etc.).</td>
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<td>• Basic pathologic reactions in the skin (dyskeratosis, hyperkeratosis,</td>
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<td>parakeratosis, hypergranulosis, acanthosis, spongiosis, vacuolar</td>
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<td>alteration of the keratinocytes , exocytosis, acantholysis, papilomatosis,</td>
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<td></td>
<td>cell infiltrate).</td>
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<td><strong>The basis of treatment in dermatology:</strong></td>
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<td>• Topical treatment – general principles, excipient, active substances</td>
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<td></td>
<td>(antibacterial, antimycotic, antiviral, antiinflammatory, etc.), topical</td>
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<td>medication vehicles (powders, mixtures, lotions, oils, gel, nail polish,</td>
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<td>emplastrum, soap, shampoo, paste, cream, ointment, solutions, spray).</td>
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<td>• Systemic treatment – the basic groups of medicines which are used in</td>
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<td>dermatovenerology .</td>
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<td></td>
<td>• Physical therapy in dermatology (phototherapy, radiotherapy, cryotherapy,</td>
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<td>electrotherapy, lacertherapy, hydrotherapy)</td>
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<td></td>
<td>• Surgical treatment (local excision with primary suture, excision and</td>
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<td>skin grafting, curetage, scratching, dermabrasion)</td>
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<td><strong>Practical skills:</strong> Inspection, palpation, curetage, diascopy, Nicolsky</td>
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<td></td>
<td>sign, exam with bulbous-end probe (Pospelov sign). Identification of</td>
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<td>the histopathological findings.</td>
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</tbody>
</table>
Acne vulgaris. Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, differential diagnosis, treatment, prophylaxis.

Rosacea. Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis.

Viral infections of the skin. Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis.

- Warts – common, flat, palmar and plantar;
- Anogenital warts (Condyloma acuminatum);
- Molluscum contagiosum;
- Herpes simplex;
- Herpes zoster (shingles).

Practical skills: students have to perform and explain the results of bacterial exam in acne vulgaris; direct microscopic examination in rosacea; Tzanck smear in herpes simplex.

Pyodermas. Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis:

- Staphylococcal skin infections: superficial folliculitis (osteofolliculitis) și deep (sycosis vulgaris); perifolliculitis (furuncle, furunculosis, carbuncle), staphylococcal infection of sweat glands (suppurative hidradenitis, multiple abscesses of the newborn), superficial pyodermas (bullous impetigo, dermatitis exfoliative neonatorum Ritter von Rittersheim (staphylococcal scalded-skin syndrome)).
- Streptococcal skin infections: impetigo contagiosa, blistering distal dactylitis, lichen simplex, intertrigo, ecthyma, erysipelas.

Parasitic skin diseases. Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis:

- Scabies;
- Pediculosis.

Practical skills: students have to perform and explain the results of direct microscopic examination and bacterial exam in pyodermas. Prescription of the topical treatment: correct treat of pyogenic focus. To perform and explain the results of direct microscopic examination in scabies. Methods of disinfection in parasitic diseases. To make prescriptions for patients with pyodermas and parasitic skin diseases. The declaration file of scabies.
4. **Mucocutaneous mycosis.** Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis:
   - Dermatophytosis (*tinea*) – microsporia, tricophytosis, favus, epidermophytosis, rubromycosis.
   - Pityrosporum infections – pityriasis versicolor
   - Candidiasis.

**Practical skills:** students have to perform and explain the results of Baltzer, Besnier and “Celsii honeycomb” signs; Wood’s light examination; direct microscopic examination in dermatomycosis; to make prescriptions for patients with dermatomycosis. The procedures of hyperkeratotic plaques and hair removal in dermatomycosis lesions. The declaration file of dermatomycosis. Methods of shoe disinfection in dermatomycosis.

5. **Psoriasis.** Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis.
   **Lichen planus.** Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis.

**Pityriasis rosea Gibert.** Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis.

**Management of the patient (case history).**

**Practical skills:** students have to perform and explain the results of the methodical gratrage probe that reveals the psoriatic triad, Köebner and Wickham signs; to recording the dermatological patients ambulatory and clinical files; to prescribe the topical therapy: methods of application of the creams and ointments.

6. **Chronic cutaneous lupus erythematosus.** Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis.
   **Localized scleroderma (morphoea).** Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis:
   - Morphoea in plaques;
   - Morphoea liniara.

**Vitiligo.** Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis.

**Alopecia areata.** Definition, epidemiology, etiology, pathogenesis,
classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis.

**Practical skills:** students have to perform and explain the Besnier-Mescersky, “carpet tack”, “orange skin” signs, diascopy; to determine and appreciate the minimal erythema dose; skin sensitivity in vitiligo.

<table>
<thead>
<tr>
<th>7.</th>
<th><strong>Allergic dermatosis.</strong> Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Urticaria, angioedema.</td>
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<td></td>
<td>- Eczema – exogenous (contact dermatitis, allergic dermatitis), endogenous (atopic dermatitis), exo/endogenous (eczema nummular eczema, microbial eczema, varicose eczema, dyshidrotic eczema, seborrheic eczema);</td>
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<td><strong>Drug induced reactions of the skin.</strong> Pathogenesis, morphological types, treatment</td>
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<td><strong>Erythema multiforme.</strong> Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis:</td>
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<td>- Minor form;</td>
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<td>- Major form (Stevens-Johnson and Lyell syndromes).</td>
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<td><strong>Cutaneous small vessel vasculitis.</strong> Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis:</td>
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<td>- Henoch-Schonlein purpura;</td>
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<td></td>
<td>- Leukocytoclastic vasculitis (Gougerout – Ruitter)</td>
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<td><strong>Practical skills:</strong> students have to reveal and appreciate skin tests to suspected allergens (patch, scratch and prick tests), to determine and appreciate dermographism in patients suffering from allergic dermatosis. The revealing and appreciation of “Cuff” sign in vasculitis. The prescribing of topical treatment: indications and appropriative use of wet dressings, mixtures, water-in-oil and oil-in-water emulsions, pastes, sprays.</td>
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</tbody>
</table>

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<thead>
<tr>
<th>8.</th>
<th><strong>Autoimmune pemphigus.</strong> Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis:</th>
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<tbody>
<tr>
<td></td>
<td>- Pemphigus vulgaris,</td>
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<td>- Pemphigus vegetans,</td>
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<td></td>
<td>- Pemphigus seborrheic,</td>
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<td>- Pemphigus foliaceous.</td>
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<td></td>
<td><strong>Dermatitis herpetiformis Duhring:</strong> Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications,</td>
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<tr>
<td>Chapter</td>
<td>Disease</td>
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</tbody>
</table>
| 29 | Genodermatoses | Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, prophylaxis:  
- Ichthyoses (ichthyoses vulgaris);  
- Hereditary epidermolysis bullosa (simplex, junctional and dystrophic forms of epidermolysis bullosa).  
**Practical skills:** students have to reveal and appreciate: Nikolsky and Asboe-Hansen signs, Jadassohn test, Tzanck smear. |
| 9 | Syphilis | Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, management of the patients and follow-up, prophylaxis.  
- Acquired syphilis:  
  - early (primary; secondary; early latent)  
  - late (tertiary; late latent)  
- Congenital syphilis (early; late; latent).  
**Practical skills:** students have to reveal and appreciate diascopy, bulbous – end probe, Baltzer and Besnier signs. To perform the procedure of obtaining pathologic material (from lesions and lymphatic nodes), the technique of preparations and *T. pallidum* dark-field microscopy. Obtaining the material for serologic tests, the technical procedures and the evaluation of results in patients with syphilis. Penicillin allergy testing. The penicillin and benzathine penicillin administration regimen appropriate to the stage of syphilis. |
| 10 | Gonococcal infection | Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, management of the patients and follow-up, prophylaxis.  
**Another sexually transmitted diseases** (caused by *Chlamydia trachomatis, Trichomonas vaginalis*). Definition, epidemiology, etiology, pathogenesis, classification, clinical features, complications, laboratory diagnosis, positive/differential diagnosis, treatment, management of the patients and follow-up, prophylaxis.  
**HIV/AIDS infection.** Clinical features and evolution of the cutaneous manifestations of:  
- Mucocutaneous infections:  
  - viral infections;  
  - bacterial infections;  
  - fungal infections;  
  - parasitic skin diseases. |
Nonspecific cutaneous manifestations:
  - seborrheic dermatitis;

Neoplastic cutaneous manifestations:
  - lymphomas;
  - HIV-associated Kaposi’s sarcoma.

**Practical skills**: technical procedure which is used for obtaining of pathologic material for laboratory examination from patients with gonorrhoea and non-gonococcal urethritis. The urethroscopy technique and further appreciation of endoscopic forms of chronic urethritis. Thompson’s probe – technique and evaluation of results in patients with urethritis.

**List of textbooks:**

**A. The obligatory:**

**B. The additional:**
12. European guidelines for the management of STIs. Internet.

Methods of teaching and studying applied:
Dermatovenerology taught as a clinical subject in a classic manner/style combining lectures with practical lessons. Students must be present throughout the course as on lectures so as on practical sessions. The titular of the course reads lectures during the theoretical course. At the practical lessons, students study the subject of Dermatovenerology on the basis of University Clinic by means of physical examination of stationary and ambulatory patients, they discuss the basic and the most difficult topics in the interactive manner, resolve tests, fill out medical histories and review clinical cases. The department of Dermatovenerology reserves the right to carry out some practical lessons in an interactive manner.

Suggestions for individual activities:
- To work with information sources, reading them carefully, taking notes
- To work with exercise book for practical lessons
- To get acquainted with the main studying techniques:
  - Observation;
  - Analysis;
  - Comparison;
  - Classification;
  - Diagrams’ development;
  - Modeling
  - Experiment.

Evaluation methods:
Assessment of knowledge, on the subject of dermatovenerology, is held in two phases: formative and summative evaluation.

Formative evaluation take place each day on practical lessons and consist of several stages: the oral response, the comment of a clinical case, the implementation of practical skills. Formative assessment provides the obligatory presence of students at all lectures / practical lessons. If a student missed a lesson, he must recover it. Formative assessment includes two separate constituents: annual mark and practical skills.

Annual mark is counted as the arithmetic mean estimate based on daily grades obtained during the course, at the same time the final mark should not be lower than 5. Daily assessment represents arithmetic mean of all tasks performed during the practical sessions, which are measured from 0 to 10, the minimum grade is 5. Otherwise, the student will be forced to make additional effort to recover these practical lessons to correct unsatisfactory note.
Admission to the practical skills is provided only if the annual mark is positive. The practical skills are carried out at the patient’s bedside, where student presents the case history, which was written by him earlier. Students' knowledge are assessed by professor, on the base of execution of practical skills and presentation of clinical case. The practical test is held on the last day of the course and marks are graded from 0 to 10, the minimum grade is 5.

**Summative evaluation of knowledge** is implemented in the form of a final exam which consists of two stages: a written test and oral exam (which includes 3 questions). Students whose annual mark is lower than “5” are not admitted to the final examination, as well as the students who did not recover the absences in practical lessons.

A written test consists from 100 questions (for each topic from this course), of which 40 have only one correct answer and another 60 have two and more answers.

Student has two hours to answer this test. The test is graded from 0 to 10 by scanning with a computer system “Test – corrector” developed at the State Medical and Pharmaceutical University “Nicolae Testemitanu”.

Topics for exams (written test and questions for oral test) are approved at the meeting of department and are presented to students at least one month before the session.

The final mark consists of four components: the annual mark (coefficient 0.3), practical skills test (coefficient 0.2), oral test (coefficient 0.3), and written test (coefficient 0.2). Estimation of knowledge is made for each compartment separately with marks from 10 to 1 rounding up to tenth and hundreth.

Final mark consists of amount of current evaluation and final exam and is estimated with marks from 10 to 1 rounding up to 0.5 tenth.

### Rounding scale for final marks

<table>
<thead>
<tr>
<th>Sum of marks of current evaluation and final exam</th>
<th>Final mark</th>
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<tbody>
<tr>
<td>5 -5.09</td>
<td>5.0</td>
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<tr>
<td>5.1- 5.59</td>
<td>5.5</td>
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<td>5.6 – 6.09</td>
<td>6.0</td>
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<tr>
<td>6.1 – 6.59</td>
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<td>6.6 – 7.09</td>
<td>7.0</td>
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<td>7.1 – 7.59</td>
<td>7.5</td>
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<tr>
<td>7.6 – 8.09</td>
<td>8.0</td>
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<tr>
<td>8.1 – 8.59</td>
<td>8.5</td>
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</tbody>
</table>
A non-motivated absence at the examination is considered an “absence” and is equal with mark “0” (zero).

Student has right to perform the failed exam twice.

**Teaching Languages:** English

### Assessment Scale

Knowledge assessment is graded from “10” to “1”, not considering the tenth. Marks from “5” to “10” permit to gain the credits corresponding the Plan of Study. Final mark results from the sum of current assessments and marks from the final examination being rounded off to a whole number. The student who gets the mark lower than “5” in the current assessment is not admitted to the final examination.

- **Grade “10”** or “excellent” is given for a deep and remarkable demonstration of the theoretical and practical competences, 91-100% of the material of the course.
- **Grade “9”** or “very good” is given for a very good demonstration of the theoretical and practical competences, 81-90% of the material.
- **Grade “8”** or “good” is given for a good demonstration of the theoretical and practical competences, 71-80% of the material of the course.
- **Grade “7”** or “satisfactorily” is given for knowing 66-70% of the material of the course.
- **Grade “6”** or “satisfactorily” is given for the demonstration of the basic competences, 61-65% of the material of the course.
- **Grade “5”** or “low” is given for the demonstration of minimal competences, 51-60% of the material of the course.
- **Grade “4”** or “unsatisfactory” is given for knowing 31-40% of the material.
- **Grade “3”** or “unsatisfactory” is given for knowing 31-40% of the material.
- **Grade “2”** or “unsatisfactory” is given for the minimal knowledge of the material, 21-30%.
- **Grade “1”** or “unsatisfactory” is given for the minimal knowledge of the material, 0-20%.