GENERAL INFORMATION

Course name	**Internal Medicine 2 - Rheumatology**
Course director	**Assoc. Prof. Tatjana Bačun, MD, PhD**
Assistants	Prof. Marija Glasnović, MD, PhD
Study program	**Integrated undergraduate and graduate university study program Medical Studies in German**
Course status	Mandatory
Year of study, semester	3rd year, 6th semester
Credits allocated and form of instruction	ECTS student workload	**2**
	Number of teaching hours (L+S+E)	**30** (10+10+10)

COURSE DESCRIPTION

Course objectives

Learn rheumatic symptoms, diseases and syndromes, their incidence, causes, diagnostic algorithms, prognosis, prevention and treatment.

Course requirements

There are no specific requirements for this course except those defined in the study program curriculum.

Learning outcomes relevant to the study program

1.2, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 4.1, 4.2

Expected learning outcomes *(5-10 learning outcomes)*

Knowledge
1. Classify, define, describe and distinguish between specific rheumatic diseases as unique clinical entities;
2. Describe leading rheumatic symptoms and signs and connect them to specific clinical pictures and syndromes and interpret the basic pathophysiological mechanisms of the development of the most important clinical entities;
3. Present differential-diagnostic possibilities based on clinical symptoms and signs patients have;
4. Plan and select the proper diagnostic procedures in certain conditions, rheumatic syndromes and diseases and critically evaluate the results of diagnostic tests;
5. Connect and integrate the knowledge from the clinical picture and the diagnostic procedure and critically evaluate the correct diagnosis of rheumatic diseases;
6. Identify the basic principles of treatment and map out the most appropriate type and sequence of therapeutic interventions;
7. Critically evaluate various invasive and non-invasive treatment methods of specific diseases and provide arguments to the patient;
8. Predict the appropriate prognosis of a disease and analyze the course, effects and outcomes of medical treatment;
9. Recognize diagnostic and treatment methods in accordance with the principles of "evidence-based medicine"

Skills
1. Demonstrate the ability to independently take a medical history, perform a clinical examination of a rheumatic patient and determine a working diagnosis;
2. Identify the leading rheumatic symptoms and identify the correlation between these symptoms and specific clinical entities;
3. Recognize the symptoms of a life-threatening condition in a patient and present how to provide care for them;

4. Become proficient in discussing the clinical picture and interpreting the differential diagnosis;
5. Become proficient in interpreting and discussing the patients' diagnostic findings;
6. Carry out certain clinical skills independently in accordance with the Clinical Skills Handbook;
7. Under supervision, complete different diagnostic and therapeutic procedures as outlined in the Clinical Skills Handbook;
8. Demonstrate the means for managing diagnostic and therapeutic procedures and monitoring patients in accordance with appropriate procedures (algorithms);
9. Keep patients' medical records;
10. Participate in team, interdisciplinary and multidisciplinary clinical work and demonstrate good communication skills with the patients, their companions and staff.

Course content

Rheumatoid arthritis, Systemic lupus erythematosus (disease development etiology, laboratory tests, physical signs of disease, clinical manifestations of disease, differential diagnosis, treatment). Laboratory tests in clinical immunology and rheumatology, Immune complex diseases (C-reactive protein, serum amyloid A-protein, rheumatoid factor, ANA, exogenous and endogenous antigens causing immune complex disease, development mechanism, clinical characteristics, problem-solving). Seronegative spondyloarthritis (ankylosing spondylitis, psoriatic arthritis, reactive arthritis, enteropathic arthritis, undifferentiated spondyloarthritis, criteria for diagnosis of seronegative spondyloarthritis). Dif.dg. of hereditary angioedema, Immunodeficiency (genetic predisposition to disease development, genetic variants of hereditary angioedema, differential diagnosis, clinical picture, treatment, antibody immunodeficiency, lymphocyte T immunodeficiency, combined immunodeficiency of T and B lymphocytes, phagocyte dysfunction, secondary immunodeficiency, problem-solving). Vasculitis, Progressive systemic sclerosis, Polymyositis, Dermatomyositis (polyarteritis nodosa, hypersensitivity vasculitis, Henoch-Schonlein purpura, temporal arteritis, Takayasu's arteritis, Wegener's granulomatosis, polymyalgia rheumatica, diffuse scleroderma, limited scleroderma, sclerosis of internal organs, symmetrical proximal muscle weakness, evidence of myositis by biopsy, increased muscle enzymes, characteristic changes in EMNG, characteristic redness for dermatomyositis). Mixed connective tissue disease, Fold syndromes, Sjogren syndrome, Arthropathy as a manifestation of internal disease (systemic lupus erythematosus, progressive systemic sclerosis and polymyositis, myalgia, arthralgia, failure to meet all criteria for any disease, dryness of the mucous membrane of the eye and oral cavity, histopathologic findings, treatment and prognosis, problem-solving). Osteoarthritis and extra-articular rheumatism, Approach to patients with damaged joints (knee osteoarthritis, hip osteoarthritis, hand osteoarthritis, muscle diseases, bursitis, tendonitis, fasciitis, panniculitis, fibromyalgia). Diseases caused by hypersensitivity, Atopic diseases, Hypersensitivity to medicines (allergic, hypersensitivity, leukocytoclastic disease, anaphylaxis and anaphylactic shock, urticaria, allergens, drug allergy, problem-solving). Mucopolysaccharidosis I (MPS-I), Fabry disease, Gaucher's disease, Pompe disease (Hurler syndrome, Scheie syndrome, Hurler-Scheie syndrome, genetic hereditary diseases and disorders). Biology of aging and geriatrics, Diagnosis of HLA systems in different diseases (aging theory, genetic, physiological, organ function change theories, changes in the body of the elderly, main tissue tolerance system, molecular and HLA gene structure, immunoglobulin superfamily, terminology and HLA gene typing, diseases related to HLA alleles, problem-solving).

Form of instruction	☒ lectures	☐ individual assignments
	☒ seminars and workshops	☐ multimedia and internet
	☒ exercises	☐ laboratory
	☐ distance learning	☐ mentoring activities
	☐ field course	☐ other

Student obligations

Come to class prepared by studying the recommended literature for each unit and actively participate in all forms of instruction. The student must participate in at least 70% of classes to pass the course.

Monitoring student learning

Attendance	x	Active participation	x	Seminar paper		Experimental work	
Written exam	x	Oral exam	x	Essay		Research	
Project		Continuous assessment		Paper		Practical work	
Portfolio							

Assessment and evaluation of students during class and on the final exam

Students' performance will be evaluated during class and on the final exam. Students are evaluated numerically and descriptively (insufficient (1), sufficient (2), good (3), very good (4), excellent (5)). During classes, a student can earn a maximum of 100 points. Students can earn a maximum of 20 points during classes through different types of activities. On the final exam, students can earn a maximum of 80 points. The final grade represents the sum of the points earned during classes and on the final exam.

Mandatory reading

1. Basislehrbuch Innere Medizin. Kompakt, greifbar, verständlich. Braun J, Renz-Polster H; Urban & Fischer, Mchn: 2000

Additional reading

The number of copies of mandatory reading in proportion to the number of students currently taking this course

Title	Number of copies	Number of students
Basislehrbuch Innere Medizin. Kompakt, greifbar, verständlich. Braun J, Renz-Polster H; Urban & Fischer, Mchn: 2000	20	60

Quality monitoring methods ensuring the acquisition of knowledge upon completion, skills and competences

The quality of course performance is monitored through an anonymous student survey on the quality of the organization and conduction of classes, the course content and the work of professors. The usefulness of the lectures from the students' perspective, the curriculum content, the professor preparedness, the clarity of the presentation, the amount of new content and the quality of the presentation are evaluated. The curriculum and its execution are administratively compared. The participation of students in lectures and exercises, as well as the excuses for missing classes, are controlled and analyzed.