

FACULTY OF MEDICINE

Approved:

Dean:

(Prof. Dr. Zlatislav Stoyanov **Dimitrov, DSc**)



SYLLABUS

IN

Mandatory discipline
“Internal medicine II part“

included in the curriculum of the specialty "MEDICINE"

for the students of the 5th year, acquiring educational-qualification degree
"Master" with professional qualification "medical doctor"

Specialty	MEDICINE
Educational - qualification degree	master
Organizational form of education	full-time
Auditorial activity (Lectures/Seminars)	345 (105/240)
Extra-auditorial activity	75
ECTS- credits	14 (5+9)
Discipline type	Compulsory
Semester/s of education	ninth and tenth
Semester of examination	tenth
Developer(s) of the Syllabus:	Assoc. prof. Mira Siderova, PhD Prof. Svetla Staikova, PhD, DSc Prof. Kiril Hristozov, PhD Assoc. prof. Irina Ivanova, PhD Assoc. prof. Ilina Micheva, PhD

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ANNOTATION

Aims	<p>The discipline "Internal Diseases - Part II" is taught in the 5th year of the medical training and combines four separate subjects: nephrology; hematology; gastroenterology and endocrinology. The aim of the course is to continue the introduction to clinical medicine that students receive in 3rd and 4th year of medical education, to achieve confidence and a good knowledge of the main methods of examination of patients - history and physical examination, to consolidate the management of important symptoms and syndromes of internal diseases, to know the possibilities and accuracy of diagnostic functional and instrumental methods and last but not least - to learn the principles of treatment of the diseases studied.</p> <p>Overall, the course aims to combine theoretical training in internal medicine with an introduction of students to everyday clinical work, with demonstration of methods of investigation and therapeutic intervention in order to achieve a holistic and contemporary approach to patient health problems.</p>
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Outcomes for students at the end of the course:

Knowledge	<p>The lecture course and practical exercises/seminars provide an in-depth knowledge of the mechanisms, physiology, pathophysiology, pharmacological and non-pharmacological treatment in internal medicine.</p> <p>The training process is sequenced in 4 modules with equal distribution of the horarium, in the therapeutic clinics: Clinic of Nephrology and Dialysis, Clinical Hematology, Endocrinology and Metabolic Diseases and Hepatogastroenterology. Teaching sessions within the seminars are held at the patients' bedside and continue in the seminar rooms to discuss and summarize the working diagnosis, recommended diagnostic and therapeutic methods for the specific clinical case and a general plan of topics by subject. The syndrome-based approach is widely adopted and covers the development of algorithms for anaemia, significant weight reduction, vague febrile state, lymphadenopathy, hepatosplenomegaly, nephritic and nephrotic syndrome, haematuria, abdominal and lumbar pain, hyperglycaemic and hypoglycaemic states, osteopenia and osteoporosis, hormonal disorders, vomiting, GI obstruction, focal hepatic, renal, thyroid lesions, elevated liver enzymes, icterus, anorexia, obstipation and diarrhoea, acute GI bleeding. In addition, the course also targets common, socially significant diseases such as diabetes and metabolic syndrome, chronic kidney disease, urinary tract infections, poisoning, lymphoma and leukemia, viral hepatitis, liver cirrhosis, alcohol damage, colorectal cancer, gastroesophageal reflux disease, Helicobacter pylori infection, and inflammatory bowel disease. Students are encouraged in seminar exercises to integrate the information obtained from questioning, examination, investigations, differential diagnosis and course of disease and treatment administered into a report and description of the clinical case demonstrated. The lectures are well illustrated and follow European and National recommendations for management as well as current scientific advances in the syndromes and diseases studied.</p>
Skills	<p>Students gain experience in taking a thorough history and conducting a physical examination of the patient, performing or assisting in the performance of important manipulations (taking peripheral venous blood, ECG, performing an oral glucose tolerance test, renal function testing, etc.). Students develop skills in the proper interpretation of laboratory markers and imaging and morphologic test results used</p>

	<p>in the diagnostic and therapeutic approach to diseases in gastroenterology, nephrology, hematology, and endocrinology.</p> <p>Specific to the course is the demonstration in real conditions of the application of abdominal ultrasound, thyroid ultrasonography, endoscopy of the gastrointestinal tract, interventional procedures and biopsies under ultrasonographic and endoscopic control, paracentesis, Bone marrow biopsy, cytological and histological examination of peripheral blood and bone marrow, types of renal replacement therapy, approach to acute poisoning, use of hemodialyzers, carboperfusors, plasmaseparation filters and other extracorporeal blood purification methods. Practical hematology sessions, discussing normal and pathological cells in peripheral blood and bone marrow, are held in the Clinical Hematology Conference Room, where a microscope-camera-image link is set up on a multimedia screen. Practical sessions in gastroenterology are illustrated by the real-time image link from the endoscopy room and the Hepatogastroenterology Conference Room.</p>
Competences	<p>The training of future doctors in the discipline "Internal Medicine - Part II", and in particular in Gastroenterology, Nephrology, Hematology and Endocrinology, includes a good knowledge of a number of practical activities requiring a set of knowledge and skills in the discipline. Therefore, the Internal Medicine - Part II curriculum develops a number of competencies presented separately in the following groups:</p> <ol style="list-style-type: none"> 1. Patient care that is compassionate, appropriate and effective for the treatment of health problems and for health promotion. It is essential for taking an adequate history, for appropriately informing patients about upcoming procedures and tests, for making informed diagnostic and therapeutic decisions, and for conducting effective primary and secondary prevention of disease. 2. Medical knowledge of well-established yet rapidly evolving areas in Internal Medicine, namely Gastroenterology, Nephrology, Hematology and Endocrinology, and application of this knowledge to patient care. They provide a basis for introducing new research and scientific approaches into clinical practice and an opportunity to teach others. 3. Practice-Based Learning and self-improvement - practical skills in the recognition, diagnosis, assessment, prevention and treatment of diseases of the gastrointestinal system, urinary system, blood and hematopoietic organs and endocrine glands, and evaluation of patients' own care. This includes students' abilities to evaluate and assimilate scientific evidence, apply evidence-based medicine, and thereby improve medical practice and patient care. 4. Interpersonal and communication skills that provide effective information exchange and teamwork with patients, their families, and other health care professionals to achieve the most appropriate therapeutic and diagnostic approach for the patient and their loved ones. 5. Professionalism demonstrated by a commitment to fulfilling professional responsibilities, adherence to ethical principles and empathy for diverse patient populations, and a desire for continuous personal and professional growth.

	6. Systems-oriented practice to analyze risk and benefit in patient care in the specific locality and work in teams to enhance patient safety and improve the quality of patient care.
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Key competences for lifelong¹ learning , developed by the discipline:

Literacy competence Literacy is the ability to identify, understand, express, create, and interpret concepts, feelings, facts and opinions in both oral and written forms, using visual, sound/audio and digital materials across disciplines and contexts. It implies the ability to communicate and connect effectively with others, in an appropriate and creative way.	X
Multilingual competence This competence defines the ability to use different languages appropriately and effectively for communication. It broadly shares the main skill dimensions of literacy: it is based on the ability to understand, express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing) in an appropriate range of societal and cultural contexts according to one's wants or needs.	
Mathematical competence and competence in science, technology, engineering A. Mathematical competence is the ability to develop and apply mathematical thinking and insight in order to solve a range of problems in everyday situations. Building on a sound mastery of numeracy, the emphasis is on process and activity, as well as knowledge. Mathematical competence involves, to different degrees, the ability and willingness to use mathematical modes of thought and presentation (formulas, models, constructs, graphs, charts). B. Competence in science refers to the ability and willingness to explain the natural world by making use of the body of knowledge and methodology employed, including observation and experimentation, in order to identify questions and to draw evidence-based conclusions. Competences in technology and engineering are applications of that knowledge and methodology in response to perceived human wants or needs. Competence in science, technology and engineering involves an understanding of the changes caused by human activity and responsibility as an individual citizen.	X
Digital competence Digital competence involves the confident, critical and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society. It includes information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including digital well-being and competences related to cybersecurity), intellectual property related questions, problem solving and critical thinking.	X
Personal, social and learning to learn competence Personal, social and learning to learn competence is the ability to reflect upon oneself, effectively manage time and information, work with others in a constructive way, remain resilient and manage one's own learning and career. It includes the ability to cope with uncertainty and complexity, learn to learn, support one's physical and emotional well-being, to maintain physical and mental health, and to be able to lead a health-conscious, future-oriented life, empathize and manage conflict in an inclusive and supportive context.	X
Citizenship competence the ability to act as responsible citizens and to fully participate in civic and social life, based on an understanding of social, economic, legal and political concepts and structures, as well as global developments and sustainability.	X
Entrepreneurship competence Entrepreneurship competence refers to the capacity to act upon opportunities and ideas, and to transform them into values for others. It is founded upon creativity, critical thinking and problem solving, taking initiative and perseverance and the ability to work collaboratively in order to plan and manage projects that are of cultural, social or financial value.	
Cultural awareness and expression competence Competence in cultural awareness and expression involves having an understanding of and respect for how ideas and meaning are creatively expressed and communicated in different cultures and through a range of arts and other cultural forms. It involves being engaged in understanding, developing and expressing one's own ideas and sense of place or role in society in a variety of ways and contexts.	

Methods of education

- lectures
- seminars
- practicals and laboratory exercises, practical and creative problem solving, case studies, consultations, discussions, work with scientific literature, regulatory documents, databases, analyses, presentations, work with patients under observation, medical documentation.

Links with other courses from the curriculum of the specialty

- Physiology
- Pathophysiology
- Propedeutics of internal diseases
- Internal Diseases Part I
- General and clinical pharmacology
- Clinical Laboratory