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FACULTY OF MEDICINE

Approved:
Dean:
(Prof. Yoto Yotov, MD, PhD)

SYLLABUS

IN
Clinical pathology

Specialty	**MEDICINE**
Educational - qualification degree	**master**
Organizational form of education	**full-time**
Auditorial activity (Lectures/Seminars)	**135 (60/75)**
Extra-auditorial activity	**75**
ECTS- credits	**7**
Discipline type	**compulsory**
Semester/s of education	**sixth, seventh, eighth**
Semester of examination	**eighth**
Developers of the Syllabus:	**Assoc. prof. Deyan Dzhenkov, MD, PhD**
	Assoc. prof. Kalin Kalchev, MD, PhD **Assoc. prof. Hristo Popov, MD, PhD**

Varna, 2024

ANNOTATION

Goals of the course	Clinical pathology is a core discipline studied for three semesters in the speciality of Medicine. The main goal of the discipline is to build knowledge on the morphological substrate of all nosological units (diseases) and their relationship with the functional disorders that define the clinical symptoms. This is necessary for the formation of in-depth clinical thinking and handling of a wide spectrum of differential diagnosis of the disease.

Outcomes for students at the end of the course:	
Competences	We aim to develop practical activities, which require a set of knowledge and skills in the discipline, that students can perform on their own. The framework of internationally recognized key medical competences covers six groups. It's not needed to develop all six sets of competences for each curriculum .
Competence group	1. **Patient Care** is compassionate, appropriate, and efficient for treating health problems and promoting health.
Competence group	2. **Medical Knowledge** about established and evolving biomedical, clinical, and similar (eg, epidemiological and social-behavioral) sciences. Application of this knowledge to patient care.
Knowledge	▪ Gain of new scientific knowledge and clinical skills. ▪ Application of scientific knowledge in clinical situations. ▪ Teaching others.
Skills	▪ To be able to apply their knowledge of general in clinical pathology. ▪ To be able for appropriate interpretation of the morphological changes and apply them to the relevant nosological unit. ▪ To be able to find the morphological changes in tissues, organs and in the whole body, in various diseases. ▪ To be able to compare the morphology of the changes after therapy in different diseases.
Competence group	3. **Practice-based learning and self-improvement,** including investigation and appraisal of their own patient care, assessment and assimilation of scientific evidence, improvements in patient care.
Knowledge	▪ To evaluate and assimilate scientific evidence. ▪ To practice evidence-based medicine. ▪ To improve medical practice.
Skills	▪ To be able to interpret immunohistochemical studies, which are the basis of evidence-based medicine. ▪ To acquire skills of interpretation, evaluation and practical application of the scientific evidence that is endorsed by the WHO. ▪ Using the acquired knowledge, to build skills that would help to apply the learned facts in medical practice with the aim of improvement.
Competence group	4. **Interpersonal and Communication Skills** that result in efficient information exchange, teamwork with patientwork, work with patient's families, and with other health professionals.

Knowledge	vork efficient as a member of a healthcare team.
Skills	▪ To be able to work politely, calm, friendly and efficient with colleagues, patients and their relatives.
Competence group	**5. Professionalism,** as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.
Knowledge	▪ To demonstrate professional behavior and responsibility. ▪ To demonstrate humanism and cultural competence. ▪ To maintain emotional, physical and mental health. ▪ To strive for continuous personal and professional growth.
Skills	▪ To show professionalism and responsibility towards the specific patient and his illness. ▪ To acquire skills to demonstrate concern and empathy for the specific patient and his relatives. ▪ To acquire knowledge, skill and demonstrate calmness in critical situations. ▪ To acquire skills that will help them handle literature that will enrich their knowledge.
Competence group	**6. System-oriented practice,** manifested through actions that demonstrate awareness and responsiveness to the broader context of the health care system, as well as the ability to efficient use of system resources to provide optimal care.

Key competences for lifelong learning [1] that the discipline develops:	
Language Literacy The ability to recognize, understand, express, create, and interpret concepts, feelings, facts, and opinions both in spoken and written form, using visual and auditory materials, audio resources, and digital content in various disciplines and situations. It indicates the ability to communicate and successfully comprehend others in an appropriate and constructive manner.	**X**
Multilingual Competence It refers to the ability to effectively use different languages in an appropriate way for communication. It generally encompasses the same core skills as language literacy: it is based on the ability to understand, express, and interpret concepts, thoughts, feelings, facts, and opinions both orally and in writing (listening, speaking, reading, and writing), in suitable social and cultural contexts according to one's own desires or needs.	**X**
Mathematical Competence and Competence in the Field of Exact Sciences, Technology, and Engineering A. Mathematical competence is the ability to develop and apply mathematical thinking and perspective to solve various problems in everyday situations. Building on a solid foundation of mathematical literacy, it emphasizes reasoning and activity, as well as knowledge. Mathematical competence includes, to varying degrees, the ability and willingness to use mathematical ways of thinking and representation (formulas, models, concepts, graphs, and diagrams). B. Competence in the exact sciences refers to the ability and willingness to explain the natural world using acquired knowledge and applied methods, including observation and experimentation, with the aim of asking questions and drawing conclusions based on facts. Competencies in technology and engineering involve the application of this knowledge and methodology to meet perceived human desires or needs. Competence in the exact sciences,	**X**

technology, and engineering includes an understanding of the changes caused by human activity and the responsibility of the individual citizen.	
Digital Competence The ability to use and engage with digital technologies confidently, critically, and responsibly for learning, in the workplace, and for participation in society. It includes information literacy, data literacy, communication and collaboration, media literacy, creating digital content (including programming), safety (including well-being in a digital environment and cybersecurity competencies), intellectual property issues, problem-solving, and critical thinking.	**X**
Personal Competence, Social Competence, and Competence for Acquiring Learning Skills The ability to reflect on oneself, manage time and information effectively, work constructively with others, maintain resilience, and manage one's own learning and career. This includes the ability to cope with uncertainty and complexity, acquire learning skills, support one's physical and emotional well-being, maintain physical and mental health, lead a health-conscious and future-oriented lifestyle, demonstrate empathy, and manage conflicts in an inclusive and supportive context.	**X**
Civic Competence The ability to act as responsible citizens and to participate fully in civic and social life based on an understanding of social, economic, legal, and political concepts and structures, as well as global events and sustainability.	**X**
Entrepreneurial Competence The ability to act in accordance with favorable opportunities and ideas and transform them into value for others. It is based on creativity, critical thinking, problem-solving skills, initiative, perseverance, and the ability to work collaboratively in order to plan and manage projects that have cultural, social, or financial value.	
Competence in Cultural Awareness and Expression Understanding and respecting how ideas and meanings are creatively expressed and communicated in different cultures through various arts and other forms of culture. It involves a commitment to understanding, developing, and expressing one's own ideas and sense of place or role in society in diverse ways and across different contexts.	

Methods of education
▪ lectures ▪ seminars ▪ case studies, consultations, discussions, work with scientific literature

Links with other courses from the curriculum of the specialty
▪ Builds upon acquired knowledge in General Pathology, fundamental and clinical disciplines. ▪ Mandatory for studying the type and localization of disease processes, with the possibility of morphological examination, the biopsy methods – types of surgical biopsy, thick-needle and fine-needle aspiration biopsy, puncture biopsy, necropsy, make it a discipline that provides the correct orientation for medical students regarding clinical activity and is an inseparable part of the study of clinical disciplines such as internal medicine, cardiology, pulmonology, hematology, nephrology, surgery, and oncology ▪ Other related disciplines: 'Pathology is the foundation of all medical knowledge' - Carl Rokitansky