МЕДИЦИНСКИ УНИВЕРСИТЕТ - ВАРНА
„Проф. д-р Параскев Стоянов"
Ул."Марин Дринов" 55, Варна 9002, България
Тел. : 052/ 65 00 57, Факс: 052/ 65 00 19
e-mail: uni@mu-varna.bg, www.mu-varna.bg

MEDICAL UNIVERSITY - VARNA
"Prof. Dr. Paraskev Stoyanov"
55, Marin Drinov Str., 9002 Varna, Bulgaria
Tel.: +359 52/ 65 00 57, Fax: + 359 52/ 65 00 19
e-mail: uni@mu-varna.bg, www.mu-varna.bg

FACULTY OF MEDICINE

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

SYLLABUS

in

Clinical Immunology

Specialty	**MEDICINE**
Educational and qualification degree	**master**
Organizational form of education	**full-time**
Auditorial activity (Lectures/Seminars)	**30 (15/15)**
Extra-auditorial activity	**30**
ECTS Credits	**2**
Discipline type	**compulsory**
Semester/s of education	**seventh**
Semester of examination	**seventh**
Developer(s) of the Syllabus:	**Assoc. Prof. Trifon Chervenkov, MD, PhD**

Varna, 2024 г.

ANNOTATION

Aims of the course	The tuition of the "Clinical immunology" discipline aims the learning, diagnosis and therapy of immune system diseases and disease processes resulting from perturbations of the immunological mechanisms; the application in the medical practice of the latest advances of immunology and immunological manipulations, which are important part of the therapy or prevention of given disease.

Outcomes for students at the end of the course:	
Competences	
Competence group	1. **Patient Care** that is compassionate, appropriate, and effective for treating health problems and promoting health.
Skills	▪ Gather essential and accurate information about the patient ▪ Counsel patients and family members ▪ Recognize the indicators for laboratory tests ▪ Describe the laboratory tests in appropriate language for patients and caretakers ▪ Make informed diagnostic and therapeutic decisions ▪ Provide effective health management, maintenance, and prevention guidance
Competence group	2. **Medical Knowledge** about established and evolving biomedical, clinical, and cognate (eg, epidemio-logical and social-behavioral) sciences and the application of this knowledge to patient care.
Knowledge	▪ Clinical presentation, pathogenesis and treatment of immune-mediated diseases, such as immune deficiencies, allergies, autoimmune diseases, neoplasia, transplantation, reproductive failure ▪ Methods of studying of the immune system in health and pathological states through application of specific immunological methods and their interpretation ▪ Determination of the indications for immunomodulatory therapy, drug monitoring, monitoring of disease activity, of diseases affecting the immune system.
Skills	▪ An investigative and analytical approach to clinical problem solving and knowledge acquisition ▪ An ability to apply medical knowledge to clinical situations ▪ An ability to teach others
Competence group	3. **Practice-Based Learning and Improvement** that involves investigation and evaluation of their own patient care, appraisal, and assimilation of scientific evidence, and improvements in patient care.
Skills	▪ investigate and evaluate patient care practices ▪ appraise and assimilate scientific evidence, and ▪ improve the practice of medicine.

Competence group	**4. Interpersonal and Communication Skills** that result in effective information exchange and teaming with patients, their families, and other health professionals.
Skills	▪ Create and sustain a therapeutic relationship with patients and families ▪ Work effectively as a member or leader of a health care team
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.
Skills	▪ Demonstrating Professional Conduct and Accountability ▪ Demonstrating Humanism and Cultural Proficiency ▪ Maintaining Emotional, Physical, and Mental Health, and Pursuing Continual Personal and Professional Growth
Competence group	**6. Systems-Based Practice,** as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.
Skills	▪ Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate. ▪ Advocate for quality patient care and optimal patient care systems. ▪ Work in interprofessional teams to enhance patient safety and improve patient care quality.

Key competencies for lifelong learning[1], that the discipline develops:	
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	**X**

[1] As defined in 2018 г. by the European Union Council (https://eur-lex.europa.eu/legal-content/BG/TXT/HTML/?uri=CELEX:32018H0604(01)&from=EN)

and competences related to cybersecurity), intellectual property related questions, problem solving and critical thinking.	
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.	
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.	
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 ▪ practical and creative problem solving, case studies

Links with other courses from the curriculum of the specialty
▪ **Builds upon knowledge acquired in/Depends on:** o Medical biology o Biochemistry o Physiology and pathophysiology o Microbiology and virology ▪ **Necessary for the following disciplines:** o Internal diseases o Medical oncology