



FACULTY OF MEDICINE

Approved by:
DEAN:

(Prof. Dr. Yoto Yotov, MD, PhD)



SYLLABUS

for

the compulsory discipline "Hygiene and Ecology"
included in the curriculum of the specialty "MEDICINE"
for third year students,
acquiring the Master's degree
with professional qualification "M.D."

Specialty	MEDICINE
Qualification degree	Master
Form of training	regular
Auditorial employment (L/PS)	120 (60/60)
Extracurricular employment	30
Credits (ECTS)	5 (3+2)
Type of discipline	mandatory
Semester in which the training takes place	V and VI
Semester in which the examination is held	VI
Prepared the programme	Prof. D. Naydenova, MD, PhD Prof. T. Dimitrova, MD, PhD Prof. R. Pancheva, MD, PhD

Varna, 2023

ANNOTATION

Aim of the course	<p>The aim of hygiene and ecology education is to familiarize medical students with the impact of major environmental factors on human health, enabling them to learn the methods and indicators for assessing this influence. This knowledge is essential for determining health risks and prevention options.</p> <p>The issues of environmental hygiene, hygiene of medical institutions, nutrition hygiene, occupational medicine, and hygiene of children and adolescents occupy an essential place in teaching.</p> <p>Understanding hygiene and ecology forms a preventive orientation in the thinking of students, which is necessary for their future work as doctors in solving ecological and health problems. Training in hygiene and ecology enables future doctors to accurately assess the influence of environmental factors - ecological, pathogenic, and sanogenic - and to develop and implement preventive and curative measures to optimize the living environment conditions. It also helps prevent socially significant and occupational diseases and improve the health of the population.</p> <p>The teaching includes current concepts and principles related to the problems being discussed, as well as the main guidelines of environmental policy and new normative documents applied in preventive activities for the protection of the environment and the health of the human population.</p>
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Outcomes for students at the end of the course:

Knowledge	<ul style="list-style-type: none"> ▪ The basic terminology of prevention, environmental factors, the hospital and work environment, nutrition, and childhood. ▪ Working with scientific publications and normative documents concerning hygienic standards.
Skills	<ul style="list-style-type: none"> ▪ Monitoring, analysis and evaluation of hygienic standards affecting health status at individual and population level; ▪ Analysis of health risks (individual and population) arising from living environment, work and dietary habits ▪ Assessment of growth and development in childhood;
Competencies	<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. <ul style="list-style-type: none"> - Collecting important and accurate information about living habits and risk factors in the patient's home and work environment. - Advising patients on the prevention of health issues and the risks arising from their lifestyle habits. - Understanding the criteria for assessing growth and development in children and nutritional status. - Describing health risks arising from work environment factors and personal behaviour using language appropriate to patients and caregivers. - Understanding the impact of epigenetic factors on patient and family health. 2. Medical knowledge of established and evolving biomedical, clinical, and related sciences (e.g., epidemiological and social-behavioural sciences), and the application of this knowledge to patient care. <ul style="list-style-type: none"> - Acquire new scientific and clinical knowledge about the role of primary prevention.

	<ul style="list-style-type: none"> - Apply a research and analytical approach to assessment and work environment factors, childhood daily routines, eating habits, and clinical and research problem solving. - To apply medical and scientific knowledge in a preventive direction - To train others. <p>3. Practical learning and self-improvement, which includes examining and evaluating their own patient care, evaluating and assimilating scientific evidence, and making improvements in patient care.</p> <ul style="list-style-type: none"> - To research and evaluate feeding practices for patients. - To assess growth and development in childhood - Evaluate and assimilate scientific evidence on contemporary environmental and labour issues - Apply evidence-based medicine.
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Key Competencies for Lifelong Learning¹, which the discipline develops:

<p>Language literacy</p> <p>the ability to recognise, understand, express, create and interpret concepts, feelings, facts and opinions both orally and in writing, using visual, aural, audio and digital materials in a variety of disciplines and situations. It implies the ability to communicate and successfully understand with others in an appropriate and creative manner.</p>	X
<p>Multilingual competence</p> <p>defines the ability to use different languages effectively in an appropriate way for communication. It broadly covers the same basic skills as those of 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 an appropriate range of social and cultural contexts according to one's own desires or needs.</p>	X
<p>Mathematical competence and competence in science, technology and engineering</p> <p>A. Mathematical competence is the ability to develop and apply mathematical thinking and insight to solve a variety of problems in everyday situations. Building on good mathematical literacy, it emphasises reasoning and action as well as knowledge. Mathematical competence involves, to varying degrees, the ability and willingness to use mathematical ways of thinking and representing (formulas, models, concepts, graphs and diagrams).</p> <p>B. Competence in science refers to the ability and willingness to explain the natural world through accumulated knowledge and the methodologies used, including observation and experimentation, in order to ask questions and formulate conclusions based on facts. Technology and engineering competencies are the application of this knowledge and methodologies in response to presumed human wants or needs. Competence in science, technology and engineering involves understanding the changes caused by human activity and the responsibility of the individual citizen.</p>	X
<p>Digital competence</p> <p>confident, critical and responsible use of and engagement with digital technologies for learning, work and community participation. It includes information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including digital wellbeing and cyber security competences), intellectual property issues, problem solving and critical thinking.</p>	X
<p>Personal, social and learning competences</p> <p>The ability to think for oneself, manage time and information effectively, work constructively with others, maintain one's resilience, and manage one's own learning and career. This includes the ability to manage uncertainty and complexity, to acquire learning skills, to support one's own physical and emotional well-being, to maintain physical and mental health, to lead a health-conscious and future-oriented lifestyle, to be empathetic and to manage conflict in an inclusive and supportive context.</p>	

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

Civil 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 world events and sustainability.	X
Entrepreneurial competence the ability to act on favourable opportunities and ideas and to transform them into values for other people. It is based on creativity, critical thinking, problem-solving ability, initiative, perseverance and the ability to work collaboratively to plan and manage projects that have cultural, social or financial value.	
Competence for cultural awareness and expression understanding and respect for the way ideas and meaning are creatively expressed and transmitted across cultures and through a range of arts and other cultural forms. It involves a commitment to understanding, developing and expressing one's own ideas and sense of one's place or role in society in a variety of ways and in a variety of contexts.	

Methods of training

- lectures
- practise seminars
- experimental tasks, problem solving, case studies, discussions, work with scientific literature, normative documents, databases, analyses, presentations.

Relationship with other disciplines of the curriculum

- Anatomy
- Biochemistry
- Physiology
- Pathophysiology
- Microbiology