

МЕДИЦИНСКИ УНИВЕРСИТЕТ - ВАРНА
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MEDICAL UNIVERSITY - VARNA
“Prof. Dr. Paraskev Stoyanov”

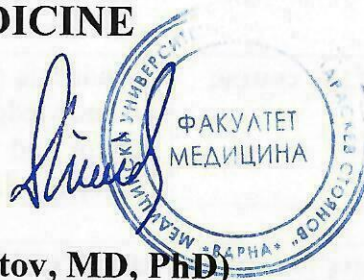
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FACULTY OF MEDICINE

Approved:

Dean:

(Prof. Yoto Yotov, MD, PhD)



SYLLABUS IN *Medical genetics*

Specialty	MEDICINE
Educational - qualification degree	master
Organizational form of education	full-time
Auditorial activity (Lectures/Seminars)	60 (30/30)
Extra-auditorial activity	30
ECTS- credits	3
Discipline type	compulsory
Semester/s of education	seventh
Semester of examination	seventh
Developer(s) of the Syllabus:	Prof. Lyudmila Angelova, MD, PhD Assoc. prof. Mariya Levkova, MD, PhD Chief assist. prof. Mari Hachmeriyan-Andreeva, MD, PhD Chief assist. prof. Milena Stoyanova, MD, PhD Chief assist. prof. Dinnar Yahya, MD, PhD

Varna, 2024

ANNOTATION

Aims of the course	To educate students in specialty “Medicine” about the subject, tasks, meaning of knowledge and organization of genetic assistance in general, to help the patient and its family for management, prevention or targeted treatment of hereditary diseases and predispositions.
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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	<ul style="list-style-type: none"> ▪ Collect important and accurate information about the patient. ▪ Consult patients and their family members. ▪ Know the indications for genetic analysis. ▪ Describe the results in language that is appropriate for patients and caregivers. ▪ Make informed diagnostic and therapeutic decisions. ▪ To provide effective prescriptions for management, maintenance and prevention of health.
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	<ul style="list-style-type: none"> ▪ basic genetic concepts and organisation of genetic material in humans; ▪ etiopathogenesis of hereditary diseases and predispositions (including congenital abnormalities); ▪ diagnostic methods and indications for referral to medical-genetic consultation; approaches for genetic prophylaxis / prevention of hereditary disorders
Skills	<ul style="list-style-type: none"> ▪ recognition of an underlying genetic disorder (syndrome or single congenital abnormality) ▪ orientation in the main mechanisms and types of inheritance with their regularities; ▪ conditions and collection of biological material for analysis (from newborn, adult, abortion material, tumor tissue, etc.)
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	<ul style="list-style-type: none"> ▪ Examine and evaluate patient care practices (including their own). ▪ Evaluate and assimilate scientific evidence. ▪ Apply evidence-based medicine. ▪ To improve medical practice.

Competence group	4. Interpersonal and Communication Skills that result in effective information exchange and teaming with patients, their families, and other health professionals.
Skills	<ul style="list-style-type: none"> ▪ Create and maintain a therapeutic relationship with patients and their families. ▪ Work effectively as a member of a health team. ▪ To lead a health 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	<ul style="list-style-type: none"> ▪ Demonstrate professional conduct and responsibility. ▪ Demonstrate humanity and cultural competence. ▪ Maintain emotional, physical and mental health. ▪ Strive for continuous 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	<ul style="list-style-type: none"> ▪ To analyse the risks and benefits in patient and/or population care, where appropriate. ▪ To take into account the cost of care for the patient and/or the population in their practice, where appropriate. ▪ Advocate for quality patient care and optimal patient care systems. ▪ Work in interprofessional teams to improve patient safety and quality of care.

Key competencies for lifelong learning¹, 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	X

¹ As defined in 2018 r. by the European Union Council ([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))

<p>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).</p> <p>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.</p>	
<p>Digital competence</p> <p>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.</p>	X
<p>Personal, social and learning to learn competence</p> <p>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.</p>	X
<p>Citizenship competence</p> <p>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.</p>	X
<p>Entrepreneurship competence</p> <p>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.</p>	
<p>Cultural awareness and expression competence</p> <p>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.</p>	

Methods of education

- lectures
- seminars with analysis of cases and discussion

Links with other courses from the curriculum of the specialty

- **Builds upon knowledge acquired in/Depends on:**
 - Biochemistry, molecular medicine
 - Medical biology
- **Necessary for the following disciplines:**
 - Obstetrics and gynecology
 - Neonatology
 - Pediatrics
 - Neurology
 - Oncology

- **Other related disciplines:**

- Medical ethics and deontology