

МЕДИЦИНСКИ УНИВЕРСИТЕТ - ВАРНА
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MEDICAL UNIVERSITY - VARNA
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FACULTY OF MEDICINE



I confirm:.....
Prof. Dr. Yoto Yotov, MD
Dean
of the Faculty of Medicine

SYLLABUS

in Orthopedics and traumatology

Specialty	MEDICINE
Educational - qualification level	master
Organizational form of training	regular
Auditory occupancy (L/SU)	90(30/60)
Extracurricular activities	30
Credits (ECTS)	4
Type of discipline	mandatory
Semester in which the training takes place	ninth
Semester in which the exam is held	ninth
Prepared the program	Prof. Dr. Dimitar Raykov, MD, PhD Assoc. Prof. Dr. Svetoslav Dobrilov MD, PhD

Varna, 2024 years

ANNOTATION

Objective of the course	<p>The specialty "Orthopedics and Traumatology" is a basic and complex medical specialty with multidisciplinary scope . Orthopedics includes clinical activities related to the diagnosis and treatment of diseases of the musculoskeletal system (MSS), their prevention and prophylaxis. This section includes a wide range of pathologies: congenital anomalies of the musculoskeletal system, degenerative joint diseases, syndromes involving the peripheral nervous system, infectious diseases of the bones, tumors, etc. In clinical terms, orthopedic diseases are diagnosed and treated in planned or delayed emergency conditions. Traumatic injuries of the musculoskeletal system are emergency conditions, with an increasing frequency and severity of injuries, requiring a comprehensive approach in a short time interval. This section of the discipline includes the diagnosis and treatment of all types of fractures, dislocations, soft tissue injuries of the skeletal muscles and some complex conditions involving the peripheral vascular and nervous systems, with consequences that threaten the patient's life or the integrity of a limb. The training in Orthopedics and Traumatology conducted in the department includes a lecture course and exercises for 5th year medical students, student internships, semester and state exams.</p>
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Student outcomes at the end of the course:	
Competencies	
Group Competencies	<p>1. Patient care that is compassionate, appropriate, and effective in treating health problems and promoting health.</p>
Knowledge	<ul style="list-style-type: none"> ▪ Primary clinical examination of a traumatic and orthopedic patient ▪ Primary surgical wound treatment - types of dressings, dressing materials and specific dressings ▪ Primary surgical treatment of surgical access in the area of the musculo-skeletal system ▪ Basic plaster casts and methods of immobilization ▪ Specific clinical tests in the diagnosis of extremity injuries ▪ Ability to interpret imaging studies - X-ray, CT, MRI and ultrasound ▪ Basic behavior in the operating room - sepsis and asepsis ▪ Prescribing basic medications in the Orthopedics Department - anticoagulants, antibiotics, steroids, NSAIDs ▪ Postoperative treatment and outpatient care options in the treatment of a patient with trauma/degenerative condition of the musculo-skeletal system ▪ Basic skills for working with medical documentation – patient's medical file, Informed consent, accompanying documentation

	<ul style="list-style-type: none"> ▪ Gather essential and accurate information about the patient ▪ Counsel patients and family members ▪ Recognize the indicators for procedures ▪ Describe the procedure in appropriate language for patients and caretakers ▪ Acknowledge the impact of the procedure on patient and family ▪ Competently perform all medical procedures required for their scope of practice ▪ Perform the procedure in a way that maximizes patient comfort ▪ Make informed diagnostic and therapeutic decisions ▪ Prescribe and perform essential medical procedures ▪ Provide effective health management, maintenance, and prevention guidance ▪
Group Competencies	2. Medical knowledge of established and emerging biomedical, clinical, and related (e.g., epidemiological and socio-behavioral) sciences and the application of this knowledge to patient care.
Knowledge	<ul style="list-style-type: none"> ▪ Current trends in the treatment of musculo-skeletal system injuries, degenerative and inflammatory diseases of the skeletal system, pediatric orthopedics and traumatology ▪ Applying updated knowledge and improving the quality of patient care
Skills	<ul style="list-style-type: none"> ▪ <i>To use what they have learned in real clinical situations</i> ▪ <i>Decision-making in emergency situations</i> ▪ <i>Preparation of a treatment algorithm for the entire treatment period</i> ▪ 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
Group Competencies	3. Practical learning and self-improvement , which includes research and evaluation of their own patient care, evaluation and assimilation of scientific evidence, and improvements in patient care.
Knowledge	<ul style="list-style-type: none"> ▪ Modern practical guidelines for treating a patient with musculo-skeletal system pathology
Skills	<ul style="list-style-type: none"> ▪ <i>Working with scientific databases</i> ▪ <i>Ability to present a specific problem</i> ▪ <i>Ability to analyze clinical data and integrate it into individual presentations on a given problem</i> ▪ <i>Critical approach to information analysis</i> ▪ <i>Ability to give a recommendation on a given task</i> ▪ <i>Working with test tasks</i> ▪ investigate and evaluate patient care practices ▪ appraise and assimilate scientific evidence, and ▪ improve the practice of medicine. ▪
Group Competencies	4. Interpersonal and communication skills that ensure effective information exchange and teamwork with patients, their families, and other healthcare professionals.

Knowledge	<ul style="list-style-type: none"> ▪ Legal and ethical norms when working with trauma patients - communication with other disciplines and hospital units, government institutions - social workers, police, fire department, etc. ▪ Ability to form an interdisciplinary team on a given problem ▪ Communication and partnership with other disciplines in decision-making
Skills	<ul style="list-style-type: none"> ▪ <i>Communicativeness, ethics and empathy when working with a patient in an impaired state</i> ▪ Create and sustain a therapeutic relationship with patients and families ▪ Work effectively as a member or leader of a health care team
Group Competencies	5. Professionalism , demonstrated through commitment to fulfilling professional responsibilities, adherence to ethical principles, and sensitivity to diverse patient groups.
Knowledge	<ul style="list-style-type: none"> ▪ The practical and theoretical knowledge acquired during the semester
Skills	<ul style="list-style-type: none"> ▪ <i>Communication with patient, medical staff and non-medical employees</i> ▪ Demonstrating Professional Conduct and Accountability ▪ Demonstrating Humanism and Cultural Proficiency ▪ Maintaining Emotional, Physical, and Mental Health, and Pursuing Continual Personal and Professional Growth
Group Competencies	6. Systems-oriented practice , which is manifested through actions that demonstrate awareness and responsiveness within the broader context of the healthcare system, as well as the ability to effectively utilize system resources to provide optimal care.
Knowledge	<ul style="list-style-type: none"> ▪ Basic knowledge about the functioning of the healthcare system in the Republic of Bulgaria and the European Union ▪
Skills	<ul style="list-style-type: none"> ▪ <i>Be able to integrate their knowledge into everyday activities</i> ▪ <i>Targeted search for opportunities for improvement in conditions of extracurricular workload</i> ▪ Work effectively in various health care delivery settings and systems relevant to their clinical specialty. ▪ Coordinate patient care within the health care system relevant to their clinical specialty. ▪ 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. ▪ Participate in identifying system errors and implementing potential systems solutions.

Key competences for lifelong learning ¹that the discipline develops:

Language literacy the ability to recognize, understand, express, create and interpret concepts, feelings, facts and opinions both orally and in writing, using visual, sound, audio and digital materials in different disciplines and situations. It implies the ability to communicate and successfully understand others in an appropriate and creative way.	X
Multilingual competence defines the ability to use different languages effectively in an appropriate way for communication. It broadly encompasses the same basic skills as those of linguistic 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 in accordance with one's own wishes or needs.	X
Mathematical competence and competence in the fields of exact sciences, technology and engineering 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, the emphasis is on reasoning and action as well as knowledge. Mathematical competence includes, to varying degrees, the ability and willingness to use mathematical ways of thinking and representing (formulas, models, concepts, graphs and diagrams). B. Science literacy refers to the ability and willingness to explain the natural world through accumulated knowledge and the use of methodologies, including observation and experimentation, in order to ask questions and formulate conclusions based on evidence. Technology and engineering literacy is the application of this knowledge and methodologies in response to perceived human desires or needs. Science, technology and engineering literacy includes an understanding of the changes caused by human activity and the responsibility of the individual citizen.	
Digital competence confident, critical and responsible use and engagement with digital technologies for learning, work and participation in society. It includes information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including digital wellbeing and cybersecurity competences), intellectual property issues, problem solving and critical thinking.	X
Personal competence, social competence and competence for acquiring learning skills the ability to think for oneself, to manage time and information effectively, to work constructively with others, to maintain one's resilience, and to manage one's own learning and career. This includes the ability to cope with 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 empathize, and to manage conflict in an inclusive and supportive context.	X
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 favorable opportunities and ideas and to transform them into values for others. It is based on creativity, critical thinking, problem-solving skills, initiative, perseverance and the ability to work collaboratively to plan and manage projects that have cultural, social or financial value.	
Competence in cultural awareness and expression an understanding and respect for the way in which ideas and meaning are creatively expressed and transmitted across cultures and through a range of arts and other forms of culture. It includes 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.	

Teaching methods

- lectures
- seminar exercises
- practical exercises, clinical cases, interdisciplinary consultations and discussions, work with scientific literature, regulatory documents, databases, analyses, presentations.

Connection with other disciplines from the curriculum of the specialty

¹defined 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))