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FACULTY OF MEDICINE

Approved:
Dean:
(Prof. Dr. Zlatislav Stoyanov Dimitrov, DSc)

SYLLABUS

IN

"Neurosciences, fundamental and clinical psychopharmacology"

Specialty	**MEDICINE**
Educational - qualification degree	**master**
Organizational form of education	
Auditorial activity (Lectures/Seminars)	**15**
Extra-auditorial activity	избираема
ECTS- credits	**2**
Discipline type	**compulsory**
Semester/s of education	**IX/X**
Semester of examination	**X**
Developer(s) of the Syllabus:	**Prof. Dr. Hristo Kozhuharov, PhD**
	Dr. Zhivko Apostolov, PhD

Varna, 2023

ANNOTATION

Neuroscience and pharmacopsychiatry deal with the various aspects of drug therapy in clinical practice and are the integrative link between psychopharmacology, biological psychiatry and clinical psychiatry. A major problem of pharmacopsychiatry is the treatment of mental disorders. Pharmacopsychiatric issues have been discussed in world medicine since ancient times, but the most intensive period of development was marked at the beginning of the 1950s and continues to this day. The present course covers some basic problems of pharmacopsychiatry and psychopharmacology. In addition to the mechanisms of action of psychotropic drugs, attention is paid to the main hypotheses in the development of biological psychiatry as a science of the etiology, pathogenesis and treatment of mental disorders. The skillful combination of diagnosis and therapy poses the question of new diagnostic approaches.

Knowledge	▪ Identify the strengths and weakness of cognitive neuroscience methods, including MRI, EEG and TMS, to be a better consumer of clinical research where such methods are applied; ▪ Demonstrate an understanding of the neural mechanisms, including structure, function and chemical processes, that underpin key cognitive and emotional processes; ▪ Develop a comprehensive knowledge of the classes of psychotropic medications and an understanding of the indications for their use; ▪ Explain the pharmacological basis of the mechanism of action of psychotropic medications and their common side effects.
Skills	▪ Identify how and when basic cognitive neuroscience findings from healthy populations should be applied to understanding the brain behaviour relationship in clinical conditions; ▪ Demonstrate skills in the critical evaluation of published material relating to the use of psychotropic medications and their impact on neuropsychological function.
Competences	**Patient Care** that is compassionate, appropriate, and effective for treating health problems and promoting health. ○ *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.* ○ *Integrate their understanding of psychotropic medications and their use and actions with their knowledge of psychopathology,*

	neuropsychological disorders and treatment planning. ○ *Provide a coherent written argument that accurately communicates their critical evaluation of cognitive neuroscience research – that has examined the cognitive and emotional sequela of clinical condition;* **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. ○ *Critical thinking, ability to identify the strengths and weakness of each cognitive neuroscience method to be a better consumer of clinical research where such methods are applied* ○ *Hypothesis testing and translationalism, taking basic cognitive neuroscience findings from healthy populations and apply them to understanding the brain behaviour relationship in clinical conditions* ○ *Written communication skills, use of developed verbal skills to explain the complex relationship between brain, behaviour and cognitive impairment in neuropsychological conditions* **Professionalism**, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. ○ *Tailoring professionalism principles from medicine to the unique features of psychiatry in order to enhance educators' teaching and improve the behaviors of psychiatrists and residents in the work setting.* **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. ○ *Demonstrating Professional Conduct and Accountability* ○ *Demonstrating Humanism and Cultural Proficiency* ○ *Maintaining Emotional, Physical, and Mental Health, and Pursuing Continual Personal and Professional Growth*

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**

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)

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 and competences related to cybersecurity), intellectual property related questions, problem solving and critical thinking.	**X**
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.	**X**
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

Links with other courses from the curriculum of the specialty
▪ Psychiatry ▪ Medical Psychology ▪ Neurology