Private Joint-Stock Company
"Higher Educational Institution
"Interregional Academy of Personnel Management"
(name of educational unit)

Approved:
Name of the department
Minute No. _ dated "_" _____ 2025

Head of the department
_____
(signature)
(full name)

SYLLABUS
of the academical discipline
"ANATOMY OF THE CENTRAL NERVOUS SYSTEM AND PHYSIOLOGY OF HIGHER NERVOUS ACTIVITY"

Specialty: C4 Psychology

Educational level: first (bachelor's) level

Study program: "Psychology"

Specialization: _____

2025

General information about the academic discipline

Name of the academic discipline	Anatomy of the Central Nervous System and Physiology of Higher Nervous Activity
Code and name of the specialty	C4 Psychology
Level of higher education	first (bachelor's) level of higher education
Status of the discipline	compulsory
Number of credits and hours	5 credits / 150 hours Lectures: 20 Seminars: 32 Students' independent work: 98
Terms of studying the discipline	2
Language of instruction	Ukrainian
Type of final control	exam

General information about the teacher. Contact information.

Academic degree	
Academic title	
Position	
Disciplines taught by the NPP	
Areas of scientific research	
Links to the registers of identifiers for scientists	
Teacher contact information:	
E-mail:	
Contact phone number	
Teacher's portfolio on the website of the department / institute / academy	

Course abstract. The academic discipline “Anatomy of the Central Nervous System and Physiology of Higher Nervous Activity” studies the structure and regularities of the functioning of various parts of the nervous system, mechanisms

of memory formation, learning, behaviour, and is characterized by close interdisciplinary connections with general psychology, evolution and anatomy of the nervous system, psychophysiology, and many other branches of psychological and medical knowledge.

The subject of study of the academic discipline is: the structure and regularities of the functioning of various parts of the nervous system, mechanisms of memory formation, learning, behavior; the general structure and functions of the nervous system; the importance of the nervous system in regulating all processes of the organism's vital activity and behavior; general information about the anatomy and evolution of the nervous system, its individual components; mental processes that are based on the nervous regulation of the organism; research into the evolutionary mechanisms of the development of the nervous system; understanding the physiological support of mental phenomena at the systemic, anatomical, cellular, and molecular levels.

The purpose of the course is to provide students with knowledge of the anatomy of the human nervous system, the ability to use it to understand the patterns of higher nervous activity of a person, as well as the genesis of psychoneurological diseases; the formation of a scientific worldview, a realistic understanding of the origin and development of human mental abilities. To prepare psychology students for practical work with people, to teach them to use knowledge of the basics of morphology to explain the physiological mechanisms of regulating the functions of the body, the nervous system of the human body, necessary for future practical work in the field of psychology.

Objectives of the academic discipline: to form in higher education students an idea of the integrity of the nervous system, its special importance in regulating all processes of the body's vital activity and behavior; to familiarize higher education students with the physiological mechanisms of mental processes, which are based on the nervous regulation of the body; to form the ability and skills to think creatively, independently solve situational problems, to analyze the topography of the organs of the nervous system and the state of the body; research of evolutionary mechanisms of nervous system development; understanding of physiological support of mental phenomena at the systemic, anatomical, cellular and molecular levels; preparing higher education students for a better understanding of other psychological disciplines in which psychophysiological concepts and terms are used.

Prerequisites of the academic discipline. Studying the academic discipline “Anatomy of the Central Nervous System and Physiology of Higher Nervous Activity” is based on the knowledge and skills obtained by students in studying the disciplines: “Fundamentals of Biology, Human Genetics and Anthropology”.

Postrequisites of the academic discipline. The knowledge and skills acquired by students in the process of studying the academic discipline "Anatomy of the Central Nervous System and Physiology of Higher Nervous Activity" contribute to the successful study by higher education applicants of a number of other

academic disciplines aimed at the formation of professional knowledge and skills: "Psychophysiology of Professional Activity", "Practical Course in General Psychology", "Age Psychology and Pedagogy".

The academic discipline ensures the formation of general and special competencies by students and the acquisition of learning outcomes defined by the educational and professional program "Psychology", namely:

Program competencies

General Competencies	GC6. Ability to make informed decisions.
Specific Competencies	SC3. Ability to understand the nature of behavior, activity and actions. SC14. Ability to understand the patterns of interaction between individuals, social groups, communities.
Learning Outcomes	PLO2. Understand the patterns and features of the development and functioning of mental phenomena in the context of professional tasks. PLO 4. Substantiate one's own position, draw independent conclusions based on the results of one's own research and analysis of literary sources. PLO 6 Formulate the goal and objectives of the study, have the skills to collect primary material, follow the research procedure. PLO 11. Draw up and implement a plan for the consultative process taking into account the specifics of the request and the individual characteristics of the client, ensure the effectiveness of one's own actions (including in working with persons who have received psychological trauma, in particular as a result of war). PLO 13. To interact, to communicate, to be understandable, to be tolerant towards people who have other cultural or gender-age differences. PLO 19. To analyze the socio-psychological characteristics of the individual and to compose a socio-psychological portrait of the individual.

Content of the academic discipline

№	Topic name	Number of hours, including			
		Lectures	**Practical classes**	**Individual work**	**Teaching methods/assessment methods**
Semester 2 **Content module 1. Fundamentals of anatomy and physiology of the nervous system**					**Teaching methods:** verbal (teaching lecture; conversation; educational discussion); inductive method; deductive method; analytical; synthetic; practical; explanatory-illustrative; reproductive; problem-based presentation method; interactive methods. **Assessment methods**: oral control (oral survey, assessment of participation in discussions, other interactive teaching
Topic 1.	Subject, tasks and methods of the discipline. Subject and tasks of anatomy and physiology of the nervous system. History of the development of anatomy and physiology of the central nervous system and the central nervous system.	2	2	10	
Topic 2.	Patterns of growth and development of the human body. Functions of individual structures of the central nervous system.	2	4	10	
Topic 3.	Methods of physiological research.	2	2	10	
Content module 2. General characteristics of the nervous system and its structural elements					
Topic 4.	General overview of the structure of the central nervous system. The human nervous system and its evolutionary development.	2	4	10	
Topic 5.	The concept of nerve centers and their properties. Elementary structures of the nervous system.	2	2	10	
Topic 6.	Spinal cord. Cerebrum. Brain stem.	2	4	10	

Topic 7.	Autonomic nervous system: sympathetic and parasympathetic, its evolution. Peripheral nervous system.	2	2	8	methods); written control (control, independent work, essays); test control (closed-form tests: test-alternative, test-correspondence) ; method of self-control and self-assessment; evaluation of case studies.
Topic 8.	General characteristics of sensory systems: visual sensory system; auditory sensory system; olfactory sensory system; gustatory sensory system; somatosensory analyzer.	2	6	10	
Content module 3. Physiology of higher nervous activity					
Topic 9.	Innate and acquired forms of behavior. Conditioned reflex activity of the cerebral cortex. Memory mechanisms.	2	2	10	
Topic 10.	Physiological foundations of human mental activity. Psychophysiology of memory and emotions. Psychophysiology of consciousness and the unconscious.	2	4	10	
Modular test work					
Total :		**20**	**32**	**98**	
Form of control: exam					

Technical equipment and/or software – official website of MAUP: http://maup.com.ua The educational process uses classrooms, a library, a multimedia projector and a computer for conducting lectures and seminars with presentation elements. Studying individual topics and completing practical tasks requires access to information from the Internet, which is provided by a free Wi-Fi network.

Forms and methods of control.

Control of the success of students is divided into ongoing and final (semester).

Ongoing control is carried out during practical (seminar) classes, the purpose of which is to systematically check the understanding and assimilation of theoretical educational material, the ability to use theoretical knowledge when performing practical tasks, etc. The possibilities of ongoing control are extremely

wide: motivation for learning, stimulation of educational and cognitive activity, a differentiated approach to learning, individualization of learning, etc.

Forms of student participation in the educational process that are subject to ongoing control:

-oral report;

- additions, questions to the person answering;

- systematic work in seminar classes, activity during the discussion of issues;

- participation in discussions, interactive forms of organizing classes;

- analysis of legislation and monographic literature;

- written tasks (tests, tests, creative works, essays, etc.);

- preparation of theses, summaries of educational or scientific texts;

- independent study of topics;

- Control of the success of students is divided into ongoing and final.

- **Methods of ongoing control:** oral control (survey, conversation, report, message, etc.); written control (test work, essay, presentation of material on a given topic in writing, etc.); combined control; presentation of independent work; observation as a control method; test control; problem situations.

Grading system and requirements.
Table of distribution of points received by students

<table>
<tr><th></th><th colspan="10">Ongoing knowledge control</th><th>Modular test work</th><th>Exam</th><th>Total points</th></tr>
<tr><td>Topics</td><td>Topic 1</td><td>Topic 2</td><td>Topic 3</td><td>Topic 4</td><td>Topic 5</td><td>Topic 6</td><td>Topic 7</td><td>Topic 8</td><td>Topic 9</td><td>Topic 10</td><td rowspan="3">20</td><td rowspan="3">40</td><td rowspan="3">100</td></tr>
<tr><td>Work in a practical session</td><td colspan="2">4</td><td colspan="2">4</td><td colspan="2">4</td><td colspan="2">4</td><td colspan="2">4</td></tr>
<tr><td>Independent work</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr>
</table>

The table contains information about the maximum points for each type of academic work of a student.

When assessing the mastery of each topic for the current educational activity, the student is given marks taking into account the approved assessment criteria for the relevant discipline.

The criteria for assessing the learning outcomes of students and the distribution of points they receive are regulated by the Regulations on the assessment of academic achievements of students at PJSC "HEI "MAUP".

Modular control. Modular control work on the academic discipline "Academic Studies" is carried out in written form, in the form of testing, namely, closed-form tests: test-alternative, test-correspondence.

Criteria for evaluating the modular test work in the academic discipline "Academic Studies":

When evaluating the modular test work, the volume and correctness of the completed tasks are taken into account:

- the grade "excellent" (A) is given for the correct completion of all tasks (or more than 90% of all tasks);
- the grade "good" (B) is given for the completion of 80% of all tasks;
- the grade "good" (C) is given for the completion of 70% of all tasks;
- the grade "satisfactory" (D) is given if 60% of the proposed tasks are completed correctly;
- the grade "satisfactory" (E) is given if more than 50% of the proposed tasks are completed correctly;
- the grade "unsatisfactory" (FX) is given if less than 50% of the tasks are completed.

Absence from the modular test work - 0 points.

The above grades are transformed into rating points as follows:
"A" - 18-20 points;
"B" - 16-17 points;
"C" - 14-15 points;
"D" - 12-13 points.
"E" - 10-11 points;
"FX" - less than 10 points.

The final semester control in the academic discipline «Anatomy of the Central Nervous System and Physiology of Higher Nervous Activity» is a mandatory form of assessing the learning outcomes of a student. It is carried out within the time limits established by the educational process schedule and in the volume of educational material determined by the syllabus of the academic discipline.

The final control is carried out in the form of an exam. The student is admitted to the final control provided that he/she performed all types of work outlined in the sullabus.

The final (semester) grade of the discipline for which the exam is provided is formed from two components: the results (grade) of the ongoing control; exam grade.

The maximum number of points for the ongoing control is 60, for the examination is 40.

The minimum amount by which the exam is considered as passed is 25 points.

The grade for the ongoing control is formed as the sum of rating points received by the student during the seminars/practical classes and incentive (if provided) points.

After evaluating the student's answers on the exam, the professor summarizes the points received for the ongoing control measures and points for the exam to obtain the final grade for the course.

Scale for the assessment of exam tasks

Scale	Total points	Criteria
Excellent level	30–40	The task is completed with high quality; the student has achieved the maximum score in the assessment of theoretical knowledge.
Good level	20–29	The task is completed with high quality and a sufficiently high proportion of correct answers.
Satisfactory level	10–19	The task is completed with an average number of correct answers; the student has demonstrated theoretical knowledge with significant errors.
Unsatisfactory level	0–9	The task is not completed; the student has demonstrated theoretical knowledge with major errors.

Assessment of additional (individual) types of educational activities. Additional (individual) types of educational activities include the participation of applicants in scientific conferences, scientific societies and problem groups, preparation of publications, etc. in excess of the tasks established by the relevant syllabus of the academic discipline.

By decision of the department, applicants who participated in scientific research work and performed certain types of additional (individual) types of educational activities may be awarded incentive (bonus) points for a certain educational component.

Incentive points are not normative and are not included in the table of distribution of points received by students and the main scale of the assessment system.

One event can be the basis for setting incentive points only for one most relevant educational component.

The total number of points scored by students for completing tasks for independent work is one of the components of the academic performance in the

academic discipline. Independent work on each topic according to the work program of the academic discipline is evaluated in the range from 0 to 3 points using standardized generalized knowledge assessment criteria.

Scale for evaluating the performance of independent work (individual tasks)

The maximum possible assessment of independent work (individual tasks)	Execution level			
	Excellent	Good	Satisfactory	Unsatisfactory
2	2	1,5	1	0

Forms of control: ongoing control based on the performance of practical work; ongoing control of knowledge acquisition based on the assessment of oral answers to questions, messages, reports, etc. (in practical (seminar) classes); individual or collective project that requires the formation of practical skills and abilities of students (selective form); solving situational tasks; a summary made on the topic studied independently; testing, performing a written test; draft articles, speech abstracts and other publications, other forms that contribute to the full assimilation of the educational program and the consistent development of skills for effective independent professional (practical and scientific and theoretical) activity at a high level.

To assess the learning outcomes of a student during the semester, a 100-point, national and ECTS assessment scale is used

Summary assessment scale: national and ECTS

Total points for all types of learning activities	ECTS assessment	National scale assessment for exam, course project (work), practice	
		National scale assessment for exam, course project (work), practice	For pass/fail (credit)
90 – 100	A	excellent	pass
82 – 89	B	good	
75 – 81	C		
68 – 74	D	satisfactory	
60 – 67	E		
35 – 59	FX	unsatisfactory with the possibility of retaking	fail unsatisfactory with the possibility of

			retaking
0 – 34	F	unsatisfactory with mandatory re-study of the discipline	fail unsatisfactory with mandatory re-study of the discipline

Course Policy.

- regularly attend lectures and practical classes;
- work systematically and actively in lectures and practical classes;
- catch-up on missed classes;
- perform the tasks required by the syllabus in full and with appropriate quality;
- perform control and other independent work;
- adhere to the norms of academic behaviour and ethics.

The course " Anatomy of the Central Nervous System and Physiology of Higher Nervous Activity" involves mastering and adhering to the principles of ethics and academic integrity, in particular, orientation on preventing plagiarism in any of its manifestations: all works, reports, essays, abstracts and presentations must be original and author's, not overloaded with quotes, which must be accompanied by references to primary sources. Violations of academic integrity are considered: academic plagiarism, self-plagiarism, fabrication, falsification, copying, deception, bribery, biased evaluation.

The assessment of the student is focused on receiving points for activity in seminar classes, completing tasks for independent work, as well as completing tasks that can develop practical skills and abilities, for which additional (bonus) points can be awarded (participation in round tables, scientific conferences, scientific competitions among students).

Methodological support of the academic discipline

Teaching and methodological materials that provide support for the discipline: lecture notes, methodological recommendations for conducting practical (seminar) classes and methodological recommendations for independent work of higher education students in the academic discipline " Anatomy of the Central Nervous System and Physiology of Higher Nervous Activity".

Recommended sources of information.

Basic *:*

1. Boyarchuk O. D. Anatomy and evolution of the nervous system: a textbook for students of higher education. Luhansk: Publishing House of the Taras

Shevchenko National University of Lviv, 2014. 395 p.

2. Hayda S. P. Human anatomy and physiology: Textbook, 2nd ed., revised and supplemented. Kyiv: Higher School, 2018. 216 p.

3. Grigor'eva O. A., Svitlytsky A. O. Lecture notes on the discipline "Human anatomy". Zaporizhzhia: [ZDMU], 2020. 173 p.

4. Kryvko Yu. Ya. Human anatomy: a textbook / edited by prof. Yu. Ya. Kryvka, prof. V. G. Cherkasova. Vinnytsia: Nova Kn., 2020. 447 p.: fig.

5. Marunenko I.M. Anatomy, physiology, evolution of the nervous system: a textbook / Marunenko I.M., Nevedomska E.O., Volkovska G.I. K.: TsUL, 2022. 184 p.

6. Sydorenko P. I. Anatomy and physiology of man: a textbook. Kyiv: Medicine, 2017. 199 p.

7. Filimonov V.I. Human physiology: a textbook / - 4th ed. Kyiv: Medicine, 2021. 488 p.

Additional:

1. Vlasenko S.B. Anatomy and physiology of the central nervous system of man: multimedia presentations of a lecture course / compiled by S. Vlasenko. Kyiv: National Academy of Internal Affairs, 2022. 225 p.

2. Galyan I.M. Anatomy and physiology of the central nervous system [Electronic resource]: Electronic educational and methodological complex; National University "Lviv Polytechnic"; compiled by Galyan Igor Mykhailovych. Lviv, 2023.

3. Dufynets V.A. Anatomical and physiological foundations of the nervous system: methodological recommendations for conducting practical classes and performing independent work for applicants for the first (bachelor's) level of higher education in the specialty 053 "Psychology" / Compiled by V. A. Dufynets, I.I. Shtykh. Mukachevo: Moscow State University, 2021. 33 p.

4. Kantareva N.V. Anatomy and evolution of the human nervous system. [Electronic resource]: electronic method. recommendations for seminar classes on the course "Anatomy and Evolution of the Human Nervous System" for applicants of the first (bachelor's) level of higher education in the specialty 053 Psychology / compiled by N. V. Kantareva. Odesa, 2024. 28 p.

5. Lupaina I.S. Anatomy and Physiology of the Human Nervous System: Instructional and Methodological Materials for Practical Classes / Lupaina I.S., Lyashevich A.M., Korniychuk N.M., Chaika Yu.Yu. – Zhytomyr: Publishing House of Zhytomyr State University named after I. Franko, 2022. 56 p.

6. Sense organs: teaching aids / General editor V.Z. Sikory. Sumy: SumDU, 2016. 110 p.

7. Cherkasov V.G. Human Anatomy: Control over independent preparation for practical classes / Cherkasov V.G., Dzevulska I.V., Kovalchuk O.I. K.: Kniga Plus, 2023. 124p.

8. Chornokulskyi S.T. Anatomy of the CNS and sensory organs. Manual for VMNZ. K.: Kniga Plus, 2019. 160 p.

Information resources:

1. *mcb.berkeley.edu/courses*
2. *www.springer.com*
3. *faculty.rcc.edu*
4. *www.archive.org*
5. *freescienceonline.blogspot.com/.*
6. *flt.univ.kiev.ua*
7. *www.nbuv.gov.ua*

Internet resources

1. http://psylib.kiev.ua/ – Library of psychological literature.
2. http://www.morphology.dp.ua/ – Dictionary of morphological terms.
3. http://medicinform.net/human/anatomy.htm – Anatomy, physiology, biology and genetics, interesting articles about humans.