

SYLLABUS

INTERNATIONAL EUROPEAN
UNIVERSITY



**SCHOOL OF
MEDICINE**

Pathophysiology

2021



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Discipline 

 Pathophysiology

Teacher 



Teacher's profile 



Consultations:

Eye consultations  Third Thursday of the month from 15:00 to 16:00

Online consultations  The second Wednesday of the month from 15:00 to 16:00

Contact Phone 

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E-mail 



Discipline page 



Summary control form	Final test	Diff.credit	Exam
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1 Short abstract of the discipline

The study of pathological physiology forms in students the ability to interpret the basic concepts of general nosology, interpret the causes, mechanisms of development and manifestations of typical pathological processes and the most common diseases, analyze, draw conclusions about the causes and mechanisms of functional, metabolic, structural disorders of organs and systems of the body in diseases; provides fundamental training and acquisition of practical skills for the next professional activity of the doctor.

2 Prerequisite for studying the discipline

It is based on the basic provisions and knowledge of anatomy, histology, medical and biological physics, bioorganic, bioorganic and biological chemistry, biology (general, molecular and medical), normal physiology, microbiology, integrates with these disciplines, as well as pathomorphology and pharmacology.

3 The purpose and objectives of the discipline

The purpose of the discipline "Pathophysiology" follows from the goals of the educational and vocational training program for graduates of higher medical educational institutions and is determined by the content of those systemic knowledge and skills that a specialist doctor should master.

4 Learning Outcomes

The result of the discipline "Pathophysiology" student must master the skills:

- differentiation of temperature curves;
- analysis of quantitative blood values for anemias;
- estimation of changes in the number of leukocytes in pathological processes;
- differentiation of types of acid-main equilibrium disorders.

5 ECTS Loans

6 credits / 180 academic hours

6 Structure of discipline

Nº s/p	Nº theme practice of the lesson	Theme Titles	Lecture	Practice sessions / seminars	Independent work of the student	IRS
I SEMESTER						
Section I. General Pathology						
1.	1.	Subject, tasks and methods pathophysiology. General doctrine of disease,	2	2,5		



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1.	1.	disease, etiology and pathogenesis. Action atmospheric pressure on the body.	2	2,5		
2.	2.	Pathogenic effect of ionizing radiation on the body.		2,5		
3.	3.	The role of heredity and constitution in pathology.		2,5		
4.	4.	Reactivity and its role in pathology		2,5		
5.	5.	Protective mechanisms of reactivity. The role of the system of mononuclear phthocytes (SMF) in pathology. Violation of phagecytosis.		2,5		
6.	6.	Pathology of the immune system. Immunodeficiency states.		2,5		
	7.	Immunopathogenesis of HIV infections		2,5		
7.	8.	Allergy.	2	2,5		
8.	9.	Cell pathophysiology		2,5		
9.	10.	Violation of peripheral circulation and microcirculation.		2,5		
10.	11.	Violation of thermal exchange.		2,5		
	12.	It's feverish.		2,5		
11.	13.	Inflammation.		2,5		
12.	14.	Tumor.		2,5		
13.	15.	Fasting.		2,5		
14.		Violation of carbohydrate metabolism. Diabetes mellitus: definition, classification, clinical manifestations and complications.			1	
15.		Pathology of water – salt metabolism. States of hyper- and hypohydrium. Edema: species, etiology, pathogenesis.	2			
16.		Violation of the acid-base state. Acidosis, alkalosis: classification, etiology, pathogenesis. Mechanisms of compensation and correction	2			
17.		Pathogenic effect of the thermal factor on the body			3	
18.		Pathogenic effect of electric current			3	
19.		Pathogenic action of chemical factors			3	
20.		Pathogenic effect of biological			3	
21.		Mechanisms of nonspecific resistance of the body			4	
22		Immunological basis of transplantation			4	



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23.		Cytotoxic allergic reactions			4	
24.		Immunocomplex allergic reactions			3	
25.		Autoallergic reactions			3	
26.		Aging and pathology			4	
27.		Violation of mineral metabolism			3	
28.		Impaired metabolism of vitamins			3	
29.		Typical disorders of lymphatic dynamics			3	
30.	16.	Scoring class		2,5		
Total (section I):			8	40	42	

II SEMESTER

Section TWO. Pathophysiology of organs and systems

31.	17.	Violation of water - electrolyte metabolism.		3		
32.	18.	Pathophysiology of the blood system. Anemia caused by blood loss.	2	3	2	
33.	19.	Hemolytic anemias and anemias caused by disorders erythropoiesis.		3	2	
34.	20.	Violation of the hemostasis system.		3	2	
35.	21.	Leukocytosis, leukopenia. Leukemia.		3	2	
36.	22.	Pathophysiology of systemic circulation. Circulatory insufficiency.	2	3	2	
37.	23.	Pathophysiology of blood vessels. Atherosclerosis.	2	3	2	
38.	24.	Pathophysiology of the heart. Coronary heart disease. Failure		3	3	
39.	25.	Pathophysiology of external respiration. Respiratory failure. Hypoxia.	2	3		
40.	26.	Pathophysiology of the digestive system. Insufficiency of digestion.	1	3		
41.	27.	Pathophysiology of the liver. Hepatic insufficiency.	1	3		
42.	28.	Pathophysiology of the kidneys. Renal failure. Violation of acid-main Balance.	2	3		
43.	29.	Pathophysiology of the endocrine system. Pathology of the pituitary gland and thyroid gland.	1	3		
44.	30.	Pathology of carbohydrate metabolism. Diabetes. Pathology adrenal glands. Stress	1	3		
45.	31.	Pathophysiology of the nervous system.	2	3		



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46.		Arterial hypotension			2	
47.		Extralegenic violations of alveolar ventilation. Disorders of non-respiratoral functions of the lungs			2	
48.		Violation of secretory function of the pancreas			2	
49.		Impaired gut function			2	
50.		Portal hypertension syndrome			2	
51.		Common hormonal regulation disorders			2	
52.		Pathology of the hypothalamo-pituitary System			2	
53.		Stress. Stress damage organs and disease adaptation			2	
54.		Pathology of the sex glands			2	
55.		General patterns of violations hormonal regulation of functions and metabolism			2	
56.		Disorders of vegetative nervous			2	
57.		Violation of the nociceptive function of the nervous system. Pain			2	
58.		Violation of trophic function of the nervous system			2	
59.	32.	FINAL CONTROL		3		
Total (Section 2):			16	48	26	

7 Signs of discipline

Term of teaching	Semester	International disciplinary integration	Course of the year (training)	Cycles: General Training/ Training/ Free Choice
1 year	V, VI	Yes	3	General Training Cycles

8 Rating system and requirements

The current success of students is estimated on a 4-point scale (2; 3; 4; 5) at each practical level, taking into account the approved evaluation criteria for the relevant discipline. The student must receive an assessment on each topic for further conversion of grades into scores on a multi-point (200-point) scale.

Evaluation criteria for current academic activities:

Excellent ("5") – the student correctly answered 90-100% of A-format tests (from the "Krok-2" database).



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Good ("4") - the student correctly answered 70-89% of tests format A. Has the necessary practical skills and techniques for their implementation to the extent exceeding the required minimum.

Satisfactory ("3") - the student correctly answered 50-69% of tests format A. Has only a mandatory minimum of research methods.

Unsatisfactory ("2") - the student correctly answered 50% of the tests format A. During the response and demonstration of practical skills makes significant, gross mistakes.

Evaluation of students' independent work on preparation for classroom practical classes is carried out during the current control of the topic at the appropriate classroom.

Semester scoring is rated on a two-point scale (enrolled/not counted) and on a 200-point scale by determining the average arithmetically for each practice session on a 4-point scale and its subsequent conversion into a 200-point scale. The minimum number of points that an applicant must score is 120.

QR Code: <https://ieu.edu.ua/docs/rate-of-study.pdf>

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Conditions of admission to final control

Students who have completed all types of work, tasks provided by the curriculum for a semester in accordance with the academic discipline are admitted to semester final control, visited all classes provided for by the curriculum, wrote and passed the medical history and have an average score for the current academic activity of at least "3" (72 points and on a 120-point scale).

QR Code: <https://ieu.edu.ua/docs/rate-of-study.pdf>

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Discipline policy

The policy of academic discipline is determined by the requirements that scientific practical employees present to the applicants in the study of clinical discipline. The condition for a successful educational process is the personal observance of the rules of conduct adopted by each student of a higher educational institution both at the university and in society.

The student must come to class on time, be dressed in an academic medical uniform (white robe or surgical suit). The student must adhere to the schedule of the educational process, come to classes prepared on the topic of the lesson. During the class, the student should not leave the classroom without the permission of the teacher; use during classes mobile phone and other means of communication and obtaining information without the permission of the teacher, engage in third-party activities, distract other students. When writing different types of works, the student must adhere to the rules of academic integrity.

The teacher must adhere to the implementation of the educational and thematic plan, objectively evaluate the knowledge and skills of students. During the educational process, the teacher should remember about anti-corruption measures and not conduct corruption activities.

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Policy on skipping classes and completing tasks after the deadline

The student, who, for good reasons, confirmed documented, was not subject to the current control of the masses the right to undergo current control within two weeks after returning to study.



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A student who was absent from classes without good reason, did not participate in current control measures, did not eliminate academic debt, is not allowed to final semester control of knowledge in this discipline, and on the day of passing the exam in the examination information, the scientific and pedagogical staff is assessed "unacceptable". Re-preparation of a differentiated test in the discipline is appointed subject to the implementation of all types of educational, independent (individual) work provided for by the working curriculum of the discipline and is carried out in accordance with the schedule of liquidation of academic debt approved by the Director.

QR Code: <https://ieu.edu.ua/docs/050.pdf>

12 Academic Integrity Policy

Participants of the educational process are guided by the principles of academic integrity

QR Code: <https://ieu.edu.ua/docs/050.pdf>

13 Recommended sources of information

Main literature:

1. «General and clinical pathophysiology»(I.Savytskyi; A.Gozenko; L. Szarpak; A. Kubyshkin). New Book, 2021.
2. Pathophysiology: [textbook] / [Y.V. Byts, G.M. Butenko, A.I. Gozhenko, etc.]; per ed. Prof. M.N. Zayka, Prof. Y.V.Bytsia, Prof. M.V. Kryshtal. – [4th kind, recycling and supplements]. – K.: VSV "Medicine", 2014.-752 p.
3. Pathophysiology: [textbook] / [M.N. Zaiko, Y.V. Byts, M.V. Crystal, etc.]; per ed. Prof. M.N. Zayka, Y.V.Bytsia, M.V. Kryshtalya. – [6th kind, recycling and supplements]. – K.: VSV "Medicine", 2017.-704 p.
4. Ataman O.V. Pathophysiology : [textbook]: in 2 t. / O.V. Ataman. – Vinnytsia: New Book, 2012-2015. – T.1. : General Pathology, 2012. – 579 p.; T. 2. : Pathophysiology of organs and systems, 2015. – 528 p.

Auxiliary:

1. Bodnar Ya.Ya., Faifura VV, Danilchuk RB Pathological anatomy and pathological human physiology: Electronic textbook. - Ternopil: Ukrmedknyha, 2000. - 640 MB.
2. Collection of tests on pathological physiology. / Yu.I. Bondarenko, OV Denefil and others. (compilers). - Ternopil, 2012. - 282 p.
3. Ganong VF Human physiology: [textbook] / William F. Ganong; lane. in English - Lviv: Bak, 2002. - 784 p.
4. Pathological physiology: Textbook / Ed. AD Ado et al. - M.: TriadaH, 2000.
5. Pathophysiology: in 3 volumes: [textbook] / ed. A.I. Volozhina, GV Order. - 2007. - T. 1. - 271 s., T.2. - 255 p., Vol.3. - 301 s.
6. Ataman A.V. Pathophysiology in questions and answers: Textbook. - K: Вища школа, 2000. - 608 с.
7. Pathophysiology: in 3 vols.: Vol. 1: General pathophysiology with the basics of immunopathology: [textbook for medical universities] - [ed. 3]
8. Henderson D.M. Pathophysiology of the digestive system: [scientific. ed.] / Joseph M. Henderson; lane. with English under. ed. V. Yu. Golofeevsky; under common ed. Yu. V. Nitochkina. - 3rd ed., Corrected. - 2010. - 272 c.
9. Pathophysiology: [textbook]: in 2 volumes - [4th ed., Reworked. and ext.] / ed. V.V. Goldberg, O.I. - GEOTAR-Media, 2009. - Vol. 1. - 848 p., Vol. 2. - 640 p.
10. Pathophysiology: in 3 vols.: Vol. 2: Pathochemistry (endocrine-metabolic disorders): [textbook for students. honey. universities] - [ed. 3rd, ext. и исп] / 2007. - 768 с.
11. Schiffman F. J. Pathophysiology of blood / F. J. Schiffman; lane. with English under ed. prof. E.B. Giburta, prof. Yu.N. Tokareva. : Нев. dialect, 2009. - 448 p.
12. Robbins and Cotran Pathologic Basis of Disease. - [9th ed.] / Eds. V. Kumar, A.K. Abbas, J.C. Aster. - Philadelphia: Elsevier / Saunders, 2015. - 1408 p.



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Tips for successful training on the course

If you want to be successful in this discipline, then you must:

1. Be active, persistent, inquisitive, consistent
2. Be tidy and polite
2. Systematically prepare for practical classes
3. Perform tasks for independent work and protect them in the classroom.
3. Attend the class in a medical gown
4. Independently solve tests and tasks, actively work in the classroom.
5. Prepare presentations and crossword puzzles in the discipline. Participate in student scientific conferences and engage in research work in scientific circles of the department.

I wish you perseverance, dedication and motivation to study and then success will come to you!

Don't forget your medical gowns!