Khanty-Mansiysk Autonomous Okrug-Ugra
«Surgut State University»

APPROVED BY
Deputy Rector for Academie Affairs

_____E.V. Konovalova

11 June, 2025, protocol No. 5

Fundamentals of project activities in healthcare

Syllabus

Assigned to the department **Pathophysiology and general pathology**

Curriculum s310501-ЛечДелоИн-25-4.plx
05.31.01 General medicine

Qualification **General Practitioner**

Form of education **full-time**

Total (in credits) **3**

Hours according to curriculum 72
including:
Classes 48
Self-study 24

Control:
7th term-credit

Distribution of discipline hours by semester

Semester (<Course>.<Semester on course>)	**7 (4.1)**		Total	
weeks	17			
Type of occupation	UP	RP	UP	RP
Lectures	16	16	16	16
Practical	32	32	32	32
Total Classes	48	48	48	48
Controls hours	48	48	48	48
Self-study	24	24	24	24
Total	72	72	72	72

The program was compiled by:

Candidate of Medical Sciences, Associate Professor Bubovich E.V.

The Syllabus

Fundamentals of project activities in healthcare

Developed in accordance with Federal State Educational Standard:

Federal State Educational Standard of higher education in the specialty 05.31.01 General Medicine (Order of the Ministry of Education and Science of Russian Federation on 08/12/2020 No. 988)

Based on the Curriculum:

31.05.01 GENERAL MEDICINE
Specialization: General Medicine

Approved by the Academe Council of Surgut State University 11 June, 2025, protocol No. 5

The Syllabus was approved by the department

Pathophysiology and general pathology

Head of Department, Doctor of Medicine, Professor Kovalenko L.V.

1. COURSE OBJECTIVES	
1.1	The aim of the course Pathologic Syndromes in Clinical Medicine is to study the pathogenetic mechanisms of various extreme conditions, etiology and clinical manifestations. The comparison of the pathogenic and clinical manifestations at all stages allows developing students' abilities of clinical and pathogenetic analysis.
1.2	The course is based on the achievements of medicine, biology, genetics, immunology, chemistry and physics, as well as modern pathogenetic mechanisms.

2. COURSE OVERVIEW	
Course code (in curriculum)	Б1.О.ДВ.01
2.1	**Assumed background:**
	Anatomy
	Chemistry
	Biology
	Microbiology, Virology
	Hominal Physiology
	Biochemistry
2.2	**Post-requisite courses and practice:**
	Department of Internal Medicine
	Faculty Surgery
	Obstetrics
	Gynecology
	Hospital Surgery, Pediatric Surgery
	Occupational diseases
	Urology
	Oncology, radiation therapy
	Traumatology and Orthopedics
	Hospital Therapy
	Endocrinology

3. COMPETENCES UPON COMPLETION OF THE COURSE (MODULE)
GPC-5.6. Demonstrates knowledge and skills to identify: the structure of the human body, morphological macro- and microscopic parameters in pathology; diagnose criteria of general pathological pathophysiological processes in various nosologies; on the basis
GPC-5.8. Demonstrates understanding of mechanisms of development of general pathological processes, knowledge of issues of pathogenesis of various human diseases and pathological conditions, ability to identify the leading links of pathogenesis in their
GPC-5.9. Demonstrates knowledge of the theoretical foundations of immunology and allergology, understanding of immune defense mechanisms, types of immunological reactions and their role in the pathogenesis of human disease;
GPC-5.10. Demonstrates knowledge of the etiology and pathogenesis of diseases, which is necessary to assess physiological state and pathological processes in order to diagnose treatment and prevention of diseases.

By the end of the course students must:

3.1	**know:**
	terms used in the course of the studied discipline;
	methods of pathogenetic research;
	the importance of the discipline for the development of medicine and public health and its relationship with other biomedical and medical disciplines;
	the general patterns of development and manifestations of various pathological reactions, processes, conditions and diseases;
	the mechanisms of developing pathological systems and violations of the information process when exposed to various pathological agents.
3.2	**be able to:**
	analyze pathological processes and individual diseases at different structural and morphofunctional levels;
	draw clinical and pathogenetic parallels of the common pathological syndromes;
	carry out pathophysiological analysis of clinical and laboratory, experimental and other data and to formulate a conclusion on their basis on the possible causes and mechanisms of pathological processes (diseases);
	carry out differentiated diagnostics of pathological conditions on the basis of pathogenesis mapping;
	substantiate the pathogenetic approach to the treatment of pathological process (disease);
	analyze the role of causes, conditions, reactivity of the body, development and completion (outcome) of diseases;

	analyze the ethiology, pathogenesis, manifestations and outcomes of the most common forms of pathology of the organs and physiological systems, the principles of their etiological and pathogenetic therapy.

4. STRUCTURE AND CONTENTS OF THE COURSE (MODULE)						
Class Code	**Topics /Class type**	**Term / Academic year**	**Academic hours**	**Competences**	**Literature**	**Notes**
	Section1.					
1.1	Anaemic syndrome. Blood loss. Hypoxia and acid - base disorder /Lec/	7	2	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.2	Respiratory distress syndrome of adults and newborns. Respiratory obstruction syndrome. Chronic Obstructive Pulmonary Disease. Bronchial asthma /Lec/	7	2	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.3	Thrombohemorrhagic syndrome. Disseminated intravascular coagulation syndrome. Deep vein thrombosis and pulmonary embolism /Lec/	7	2	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.4	Systemic inflammatory response syndrome. Multiple organ failure syndrome /Lec/	7	2	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.5	Syndrome of ischemic and perfusion damage to the brain, myocardium /Lec/	7	2	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.6	Hypertensive syndrome /Lec/	7	2	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.7	Symptoms of heart rhythm disorders (arrhythmia) /Lec/	7	2	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.8	Acute and chronic pancreatitis /Lec/	7	2	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.9	Anaemic syndrome. Blood loss. Hypoxia and acid - base disorder /Pr/	7	4	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.10	Respiratory distress syndrome of adults and newborns. Respiratory obstruction syndrome. Obstructive Pulmonary Disease. Bronchial asthma /Pr/	7	4	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.11	Thrombohemorrhagic syndrome. Disseminated intravascular coagulation syndrome Deep vein thrombosis and pulmonary /Pr/	7	4	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.12	Systemic inflammatory response syndrome. Multiple organ failure syndrome /Pr/	7	4	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.13	Syndrome of ischemic and perfusion damage to the brain, myocardium. /Pr/	7	4	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.14	Symptoms of heart rhythm disorders (arrhythmia) /Pr/	7	3	GPC-5.6. GPC-5.8.	L 1.1., L 1.2., L1.3.	

				GPC-5.9. GPC-5.10	E1 E2 E3 E4	
1.15	Hypertensive syndrome /Pr/	7	3	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.16	Acute and chronic pancreatitis /Pr/	7	3	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.17	Final lesson (Test) /Pr/	7	3	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.18	Anaemic syndrome. Blood loss. Hypoxia and acid - base disorder. /Self-study/	7	3	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.19	Respiratory distress syndrome of adults and newborns. Respiratory obstruction syndrome. Bronchial asthma /Self-study/	7	3	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.20	Thrombohemorrhagic syndrome. Disseminated intravascular coagulation syndrome Deep vein thrombosis and pulmonary embolism /Self-study/	7	3	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.21	Systemic inflammatory response syndrome. Multiple organ failure syndrome /Self-study/	7	3	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.22	Syndrome of ischemic and perfusion damage to the brain, myocardium /Self- study/	7	3	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.23	Hypertensive syndrome /Self-study/	7	3	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.24	Symptoms of heart rhythm disorders (arrhythmia) /Self-study/	7	3	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.25	Acute and chronic pancreatitis /Selfstudy/	7	3	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	
1.26	Control work /Control /	7	0	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	Control work
1.27	Credit	7	0	GPC-5.6. GPC-5.8. GPC-5.9. GPC-5.10	L 1.1., L 1.2., L1.3. E1 E2 E3 E4	

5. ASSESSMENT TOOLS
5.1. Tests and tasks
Presented by a single document
5.2. Topics for written papers

Presented by a single document

6. COURSE (MODULE) RESOURCES

6.1. Recommended Literature

6.1.1. Core

	Authors	Title	Publish., year	Quantity
Л1.1	P. F. Litvitsky, S. V. Pirozhkov	Clinical pathophysiology : concise lectures, tests, cases	Moscow: GEOTAR-Media, 2018. Electronic resource	1

6.1.2. Supplementary

	Authors	Title	Publish., year	Quantity
Л2.1	P. F. Litvitsky, S. V. Pirozhkov, E. B. Tezikov	Pathophysiology : concise lectures, tests, cases	Moscow: GEOTAR-Media, 2012. Electronic resource	1

6.1.3. Methodological developments

	Authors	Title	Publish., year	Quantity
Л3.1	P. F. Litvitsky, S. V. Pirozhkov, E. B. Tezikov	Pathophysiology : concise lectures, tests, cases	Moscow: GEOTAR-Media, 2016. Electronic resource	1

6.2. Internet resources

E1	FreeMedicalJournals
E2	HighWire
E3	Molecular & Cellular Proteomics
E4	Medline

6.3.1 Software

6.3.1.1	Operational system Microsoft, applied programs pack Microsoft Office

6.3.2 Information Referral systems

6.3.2.1	http://www.garant.ru
6.3.2.2	http://www.consultant.ru

7. MATERIAL AND TECHNICAL SUPPORT OF DISCIPLINE (MODULE)

7.1	Classrooms have a material and technical equipment that provides for all types of disciplinary and interdisciplinary training, practical and research work of students as stated in the work program, and complies with current sanitary and fire regulations and standards.