

Subject: Pathological Physiology 1
Study programme: General Medicine
Category of subject: Obligatory

Form of study: Lectures/seminars 2/3
Study form: Full-time study
Prerequisites: Physiology 2

Semester: 5th
Completion of the course: Credit
Credits: 5

Department of Pathological Physiology, Faculty of Medicine, Pavol Jozef Šafárik University, Košice
Schedule of lectures and tutorials from Pathological Physiology 1 for General Medicine, Winter semester 2023/2024

W	Lecture (Tue 12 ¹⁵ -13 ⁴⁵ P2)			Lecturer	Practical lessons		Credit tests (other duties)
	Date	Topic	Date		Topic (T - tutorials, S – seminars)		
Unite 1	1.	19.9.	Etiology I. Monogenic and chromosomal diseases; Mendelian, non-Mendelian	Beňačka	18.9.-22.9.	T: Introduction into pathophysiol., Instructions S: <i>Nosology; Pathol. signs, processes</i>	Scientific work
	2.	26.9.	Etiology II. Hereditary metabolic disorders	Beňačka	26.9.-29.9.	T: Physical factors, Radiation dis.; Hypo/hyperbaria S: <i>Chem. fact.; heavy metals, smoking, alcohol, drug</i>	Semester work instructions
	3.	3.10.	Etiology III. Disorders of nutrition; Obesity, Malnutrition qualit. & quantitative; Dietology	Lovásová	2.10.-6.10.	T: Genetics – overview; Epigenetics S: <i>Chromosomal mutations (structural, numeric)</i>	QiuZ Presentations
	4.	10.10.	Etiology IV. Disorders of inner milieu (water, electrolytes); Edemas	Beňačka	9.10.-14.10.	T: Nutrition; Obesity, Metabolic sy. S: <i>Avitaminoses, Trace elements</i>	QiuZ Presentations
Unite 2	5.	17.10.	Pathogenesis I. Microcirculatory failure (shock), MODS, DIC (hypercoagulation)	Beňačka	16.10.-20.10.	S: Acid - base balance disorders. Case reports	Practical protocol Acid-base disorders
	6.	24.10.	Pathogenesis II. Typical pathol. manifest; Pain, Hypoxia, Ischemia, Fever	Beňačka	23.10.-27.10.	S: <i>Review of etiology; Reserved topic</i>	Credit test 1
	7.	31.10.	Pathogenesis III. Acute inflammation	Beňačka	30.10.-3.11.	T: Acute inflammation S: <i>Systemic effects, SIRS, CARS, MARS, MODS</i>	QiuZ Presentations
	8.	7.11.	Pathogenesis IV. Chronic inflammation; Systemic effects; SIRS; Sepsis	Beňačka	6.11.-10.11.	S: Markers of inflamm.; Molecular basis, Fever T: <i>Wound healing – molecular pathophysiology</i>	QiuZ Presentations
	9.	14.11.	Pathogenesis V. Immunopathology (hypersensitivity, immunodeficiency)	Beňačka	13.11.-16.11.	T: Chronic inflammation, Atherosclerosis; S: <i>Autoimmunity & immunodeficiency</i>	QiuZ Presentations
	10.	21.11.	Pathogenesis VI. Neoplasms – biology; genetics, metastasing	Beňačka	20.11.-24.11.	T: Tumor biology; clin. markers; Paraneoplastic.sy. S: <i>Molecular carcinogenesis</i>	QiuZ Presentations
	11.	28.11.	Pathogenesis VII. Stress, maladaptation; Cellular stress;	Beňačka	27.11.-1.12.	T: Maladaptation dis.; Molecular pathogen. of stress S: <i>Oxidative stress; Antioxidants; Glycation damage</i>	QiuZ Presentations
	12.	5.12.	Pathogenesis VIII. Dis. of consciousness – qualitative & quantitative; Terminal states	Beňačka	4.12.-8.12.	T: Evaluation of coma & brain death S: <i>Thanatology; Postresuscitation disease</i>	QiuZ Presentations
Unite 3	13.	12.12.	Cellular pathophysiology I. Basics of intercellular signalling; intracell. pathways	Beňačka	11.12.-15.12.	T: Path. of ontogenesis – fetus, infancy, gravidity S: <i>Review of pathogenesis</i>	Credit test 2
	14.	19.12.	Cellular pathophysiology II. Cell death, necrosis, apoptosis; degeneration, dystrophy	Beňačka	18.12.-22.12.	S: Credits, evaluation of semester	Topics of semester works

November 2 – Dean’s day off, November 1 and November 17 – National Holidays

Seminars (S) = special topics for discussion; **Tutorials & homeworks & exams (T)** = discussions, consultations, oral and quiz exams on the current topics.

Responsible for the course: Doc. MUDr. Roman Beňačka, CSc., mim prof.