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 2021/2022

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.	21.9.	**Etiology I:** Monogenic and chromosomal diseases; Mendelian, non-Mendelian	Beňačka	20.9.-24.9.	**T**: Introduction into pathophysiol., Instructions **S:** *Nosology; Pathol. signs, processes*	Scientific work
	2.	28.9.	**Etiology II:** Hereditary metabolic disorders	Beňačka	27.9.-1.10.	T: Physical factors, Radiation dis.; Hypo/hyperbria **S:** *Chem. fact.; heavy metals, smoking, alcohol, drug*	Semester work instructions
	3.	5.10.	**Etiology III:** Disorders of nutrition; Obesity, Malnutrition qualit. & quantitative; Dietology	Lovásová	4.10.-8.10.	**T:** Genetics – overview; Epigenetics **S:** *Chromosomal mutations (structural, numeric)*	Qiuz Presentations
	4.	12.10.	**Etiology IV:** Disorders of inner milieu (water, electrolytes); Edemas	Beňačka	11.10.-15.10.	**T:** Nutrition; Obesity, Metabolic sy. **S:** *Avitaminoses,Trace elements*	Qiuz Presentations
Unite 2	5.	19.10.	**Pathogenesis I.** Microcirculatory failure (shock), MODS, DIC (hypercoagulation)	Beňačka	18.10.-22.10.	**S:** Acid - base balance disorders. Case reports	Practical protocol Acid-base disorders
	6.	26.10.	**Pathogenesis II.** Typical pathol. manifest; Pain, Hypoxia, Ischemia, Fever	Beňačka	25.10.-29.10.	**S:** *Review of etiology; Reserved topic*	**Credit test 1**
	7.	2.11.	**Pathogenesis III.** Acute inflammation	Beňačka	2.11.-5.11.	**T:** Typical pathological processes **S:** *Aging – theories*	Qiuz Presentations
	8.	9.11.	**Pathogenesis IV.** Chronic inflammation; Systemic effects; SIRS; Sepsis	Beňačka	8.11.-12.11.	**S:** Markers of inflamm.; Molecular basis, Fever **T:** *Wound healing – molecular pathophysiology*	Qiuz Presentations
	9.	16.11.	**Pathogenesis V.**, Immunopathology (hypersensitivity, immunodeficiency)	Beňačka	15.11.-19.11.	**T:** Chronic inflammation Immunology – overview; **S**: *Autoimmunity & immunodeficiency*	Qiuz Presentations
	10.	23.11.	**Pathogenesis VI.** Neoplasms – biology; genetics, metastasing	Beňačka	22.11.-26.11.	**T:** Tumor biology; clin. markers; Paraneoplastic.sy. **S:** *Molecular carcinogenesis*	Qiuz Presentations
	11.	30.11.	**Pathogenesis VII.** Stress, maladaptation; Cellular stress;	Beňačka	29.11.-3.12.	**T:** Maladaptation dis.; Molecular pathogen. of stress **S:** *Oxidative stress; Antioxidants; Glycation damage*	Qiuz Presentations
	12.	7.12.	**Pathogenesis VIII.** Dis. of consciousness – qualitative & quantitative; Terminal states	Beňačka	6.12.-10.12.	**T:** Evaluation of coma & brain death **S:** *Thanathology; Postresuscitation disease*	Qiuz Presentations
Unite 3	13.	14.12.	**Cellular pathophysiology I.** Basics of intercellular signalling; intracell. pathways	Beňačka	13.12.-17.12.	**T:** Path. of ontogenesis – fetus, infancy, gravidity **S:** *Review of pathogenesis*	**Credit test 2**
	14.	21.12.	**Cellular pathophysiology II.** Cell death, necrosis, apoptosis; degeneration, dystrophy	Beňačka	20.12.-23.12.	**S:** Credits, evaluation of semester	Topics of semester works

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.