

CONTENT OF THE SUBJECT

Subject:	Pathological Physiology 1		
Study	<i>General Medicine</i>	Study Period:	<i>Winter time</i>
Evaluation:	<i>Graduated (credit)</i>	Subject Type:	<i>Compulsory</i>
Content:	<i>2 h. lectures and 3h. practical exercises/ week</i>		<i>Total 70 hours</i>

Department of Pathological Physiology, UPJŠ FM

Week	Lectures https://portal.lf.upjs.sk/index-en.php	Seminars
1.	Etiology I: Monogenic and chromosomal diseases; Mendelian, non-Mendelian inheritance	Tutorial (T): Introduction into pathophysiology, Instructions Seminar (S): Nosology; Pathol. signs, processes
2.	Etiology II: Hereditary metabolic disorders	T: Physical factors, Radiation dis.; Hypo/hyperbaria S: Chem. fact.; heavy metals, smoking, alcohol, drug
3.	Etiology III: Disorders of nutrition; Obesity, Malnutrition qualitative & quantitative; Dietology	T: Genetics – overview; Epigenetics S: Chromosomal mutations (structural, numeric)
4.	Etiology IV: Disorders of inner milieu (water, electrolytes); Edemas	T: Nutrition; Obesity, Metabolic syndrome S: Avitaminoses, Trace elements
5.	Pathogenesis I: Microcirculatory failure (shock), MODS, DIC (hypercoagulation)	S: Acid - base balance disorders. Case reports
6.	Pathogenesis II: Typical pathological manifestations; Pain, Hypoxia, Ischemia, Fever	S: Review of etiology Credit test 1
7.	Pathogenesis III: Acute inflammation	T: Typical pathological processes S: Aging – theories
8.	Pathogenesis IV: Chronic inflammation; Systemic effects; SIRS; Sepsis	S: Markers of inflammation; Molecular basis, Fever T: Wound healing – molecular pathophysiology
9.	Pathogenesis V: Immunopathology (hypersensitivity, immunodeficiency)	T: Chronic inflammation Immunology – overview; S: Autoimmunity & immunodeficiency
10.	Pathogenesis VI: Neoplasms – biology; genetics, metastasing	T: Tumor biology; clinical markers; Paraneoplastic syndromes S: Molecular carcinogenesis
11.	Pathogenesis VII: Stress, maladaptation; Cellular stress	T: Maladaptation dis.; Molecular pathogenesis of stress S: Oxidative stress; Antioxidants; Glycation damage

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12.	Pathogenesis VIII: Disorders of consciousness – qualitative & quantitative; Terminal states	T: Evaluation of coma & brain death S: Thanatology; Postresuscitation disease
13	Cellular pathophysiology I: Basics of intercellular signalling; intracellular pathways	T: Path. of ontogenesis – foetus, infancy, gravidity S: Review of pathogenesis Credit test 2
14.	Cellular pathophysiology II: Cell death, necrosis, apoptosis; degeneration, dystrophy	S: Credits, evaluation of semester