

Name of the Faculty	Faculty of Medicine, Jagiellonian University Medical College
Name of the unit conducting the module	Department of Pathomorphology JU MC Department of Pathophysiology JU MC
Name of the training module	Pathology and Pathophysiology
Module code	
Language of training	English
Education effects for the training module	<p>Effects of training in the field of knowledge</p> <p>III. W 26 knows pathological nomenclature</p> <p>III. W 27 familiar with the basic mechanisms of cell and tissue damage</p> <p>III. W 28 determines the clinical course of inflammation -specific and non-specific and describes the regeneration of tissues and organs</p> <p>III. W 29 knows the definition and pathophysiology of shock, with particular emphasis on severe sepsis and septic shock and multiple organ failure</p> <p>III. W 30 knows the etiology of hemodynamic disturbances , regressive changes and progressive changes</p> <p>III. W 31 recognizes the images pathologic immune diseases , genetic diseases , infectious and environmental diseases</p> <p>III. W 32 recognizes pathological images of childhood diseases</p> <p>III. W 33 knows the issues of detailed organ pathology , macro - and microscopic images, clinical course of pathological changes in various organs</p> <p>III. W 34 lists the pathogens exterior and interior, modifiable and non-modifiable</p> <p>III. W 35 lists the most common form of clinical diseases of particular organs and systems, metabolic diseases and disorders of water-electrolyte and acid-base</p> <p>Effects of training in the field of skills:</p> <p>III. U13.can associate images of tissue damage and organ with clinical symptoms of the disease, history and results of laboratory tests, and describe the consequences of developing lesions to adjacent organs topographically</p> <p>III. U14. examines the phenomenon of reactive, defensive and adaptation and adjustment disorder caused by the etiological agent</p>
Type of training module (mandatory/facultative)	mandatory
Year of study	2-6
Semester	3 and 4
Name of the person leading the module	<p><u>Department of Pathomorphology:</u> Grzegorz Dyduch, MD PhD Krystyna Gałązka, MD PhD Krzysztof Okoń, MD PhD Magdalena Białas, MD PhD</p> <p><u>Department of Pathophysiology:</u> Katarzyna Ciesielczyk, MD, PhD Agata Furgała, MD PhD Kajetan Juszcak, MD PhD Jolanta Kaszuba-Zwoińska, MD PhD Magdalena Kurnik. MD PhD Agata Ziomber, MD PhD</p>
Name of the person examining or granting a credit if it is not the person conducting the module	Dariusz Adamek, MD PhD, Prof. of JU Prof. Piotr Thor, MD PhD
Methods of performance	Activities requiring direct participation of academic staff and students (seminars and laboratory, necropsy)
Initial and additional requirements	Anatomy, Physiology, Biochemistry and biophysics
Type and number of class hours that require direct involvement both teacher and students, when such activities are provided for the module	<p>module PATHOLOGY: 220 hours</p> <p>Pathophysiology seminars – 10h laboratories – 66h</p> <p>Pathomorphology seminars – 28h classes – 108h laboratories – necropsy: 8h</p>

Number of ECTS credits allocated to the module	16 ECTS
Balance of ECTS points	<p>Department of Pathophysiology 76 h 5,5 points ECTS Activities requiring direct participation of academic staff and students: Seminars 10h Classes 66h The modul ends of an examination</p> <p>Total students' work include: Participation in seminars 10 h Participation in classes 66 h</p> <p>Preparation to classes 66 h Preparation to exam 20 h</p> <p>Department of Pathomorphology 144 h 10,5 points ECTS Activities requiring direct participation of academic staff and students: Seminars 20 h Classes 116 h Laboratory/necropsy 8h The modul ends of an examination</p> <p>Total students' work include: Participation in seminars 28h Participation in classes 108h Participation in laboratories/necropsy 8h</p> <p>Preparation to classes 108 h Preparation to lab/necropsy 8 h Preparation to exam 20h</p>
Teaching methods applied	-seminars -classes (talk problematic with the use of theoretical knowledge, work in groups (communication skills), analysis of clinical cases (elements of clinical thinking))
Methods for testing and evaluation criteria for learning outcomes achieved by students	-semestral grade -Final test – test
Form and conditions for module passing, including the rules of admission to the exam, pass, and the form and condition for completion of the various activities within the scope of the module	<p>Evaluation and grade assignment 1st mid-term + 2nd mid-term / covering the material from the 1st and 2nd semester of the year respectively/ 50% passing limit- average to get the credit and be allowed to take the final exam</p> <p>Final grade: to pass the course Student have to get a least 50% from the final exam, 100 questions in total, 35 pathophysiology, 65 pathomorphology</p> <p>91- 100 > 5.0 grade 81-90-> 4.5 grade 71-80 -> 4.0 grade 61-70 -> 3.5 grade 51-60 -> 3.0 grade ≤50 -> 2.0 grade</p>
Training module content	<p>LECTURES:</p> <ul style="list-style-type: none"> - Neoplasms part I – epidemiology, carcinogenesis - Neoplasms part II- nomenclature, precancerous lesions, staging nad grading -Hematopathology – myelogenous neoplasms, thymus pathology - Pathology of the oesophagus and stomach part I - Liver and gallbladder pathology (non-neoplastic). - Eye, ear pathology - Kidney pathology (glomerular diseases) - Neuropathology - Placental pathology -- Non-neoplastic pathology of the skin <p>SEMINARS, LABS/PRACTICALS:</p> <ul style="list-style-type: none"> - Types of necrosis. Adaptations and degenerative changes. - Hemodynamic disorders (congestion, oedema, thrombosis, hemorrhage, emboli, infarction , shock) -Morphology of inflammation. Regeneration and tissue repair - Pathophysiology of inflammation. Types of Hypersensitivity /Cases/ - Morphology of selected infectious diseases, bacterial infections - Pathogenesis processes in circulation. Heart failure. /Cases/ -Immunopathology -Circulatory shock. MODS. /Cases/ - Pediatric pathology, selected genetic diseases, pathology of the perinatal period

	<ul style="list-style-type: none"> - Atherosclerosis. Coronary Artery Disease. MI. /Cases/ - Blood vessel pathology - Hypertension: classification and complications. /Cases/ - Heart pathology (cardiomyopathies, infarction, pathology of epi-, endo and pericardium) - Blood disorders. Anaemias /Cases/ - Hematopathology (lymphomas : MALT, CLL/SLL, MCL, FL, DLBCL, HL, MM, PTCL, ALCL, AILT, MF, SS, non-myelogenous leukemias, splenomegaly - Respiratory failure, ARDS. /Cases/ - Head and neck pathology - Asthma, COPD, Restrictive lung disease (IPF). /Cases/ - Upper respiratory tract diseases - Pulmonary oedema. Pulmonary embolism. /Cases/ - Pulmonary pathology: ARDS, morphology of obstructive diseases, inflammations, neoplasms - Autopsy - Pathology of the oesophagus and stomach - part II - Disorders of the oesophagus, stomach, duodenum. Zollinger-Ellison syndrome. /Cases/ - Pathology of the large and small intestine. Intestinal neoplasms - Disorders of the small intestine and colon. /Cases/ - Liver and gallbladder pathology (neoplasms) - Liver dysfunction, hyperbilirubinemias. Acute and chronic hepatitis, cirrhosis. Gallbladder diseases. /Cases/ - Pathology of the pancreas - Diabetes mellitus . /Cases/ -Endocrine pathology - Pituitary adenoma. DI. SIADH. Body weight control. Obesity /Cases/ - Lower urinary tract disease - Thyroid disorders. Hyperthyroidism, Hypothyroidism, Goitre. Primary and secondary parathyroidism. /Cases/ - Kidney pathology (neoplasms) - Cushing's Syndrome. Aldosteronism. Adrenocortical insufficiency. Disorders of adrenal medulla. /Cases/ - Pathology of the male genital tract - Nephrolithiasis. Glomerulonephritis and nephrotic syndrome. /Cases/ -Pathology of the female genital tract part I -Acute and chronic renal failure. /Cases/ - Pathology of the female genital tract part II -Neurology: Motor neuron disease, Parkinson's disease. Myasthenia gravis, Epilepsy, Alzheimer's disease, Stroke. /Cases/ - Breast pathology (non-neoplastic) - Autonomic nervous system examination (Ewing battery) - Dermatopathology: neoplasms - Pathology of bone and joints - Soft tissue tumors - Why clinicians and pathologists should tightly cooperate? -Autopsy
Basic and supplementary bibliography to complete the module	Robbins, Pathologic Basis of the diseases, 9 th edition
Dimension, principles and form of awarded for practice when the training program provides practice	n/a