The plan of practice

Week	The title of practice	Hours	Maximum grade
1	**Cellular Responses to Stress and Toxic Insults** 1: Introduction to Pathology. Cause of cell injury. Overview of cell injury and cell death. Cellular adaptations to stress. General questions: Discipline of Pathology. Categories of cause of cell injury. Mechanism of cell injury. Reversible cell injury. Irreversible cell injury. Mechanisms of adaptation. Hyperplasia. Hypertrophy. Atrophy. Metaplasia. Images: Heart hypertrophy, Hyperplasia of endometrium, Atrophy of the brain, Metaplasia of normal columnar epithelium, Lipid vacuoles in cytoplasm of hepatocytes. Necrosis - Myocardial infarction, kidney infarct, caseous necrosis. To read articles and to prepare presentation: 1. Review Article: Cellular and molecular mechanisms of muscle atrophy Paolo Bonaldo, Marco Sandri Disease Models & Mechanisms 2013 6: 25-39; doi: 10.1242/dmm.010389 2. Review Article: Mechanisms and Strategies to Counter Muscle Atrophy Elisabeth Barton, Carl Morris The Journals of Gerontology: Series A, Volume 58, Issue 10, October 2003, Pages M923–M926, https://doi.org/10.1093/gerona/58.10.M923 3. Review Article: Muscle Atrophy Induced by Mechanical Unloading: Mechanisms and Potential Countermeasures Yunfang Gao and all. Front. Physiol., 20 March 2018 | https://doi.org/10.3389/fphys.2018.00235 4. Review Article: Cell death: Apoptosis versus necrosis. International Journal of Oncology 21(1):165-70 · July 2002. DOI: 10.3892/ijo.21.1.165 5. Fat necrosis in the Breast: A systematic review of clinical. Narges Vasei, Azita Shishegar, Forouzan Ghalkhani. *Lipids in Health and Disease* volume 18, Article number: 139 (2019) 6. Brain Atrophy Is Associated with Disability Progression in Patients with MS followed in a Clinical Routine. E. Ghione, N. Bergsland, M.G. Dwyer, J. and R. Zivadinov American Journal of Neuroradiology November 2018, DOI:https://doi.org/10.3174/ajnr.A5876 7. Contribution of normal aging to brain atrophy in MS. Christina J. Azevedo, Steven Y. Cen. Neurology Neuroimmunology Neoroinflammation November 2019; 6 (6) DOI: https://doi.org/10.1212/NXI.0000000000000616	10	100
2	Cellular Responses to Stress and Toxic Insults II: Intracellular accumulation, pathologic calcification. Images: Lipofuscin accumulation. Iatrogenic calcinosis cutis. Hemosiderin accumulation - Large aggregates in cytoplasm of macrophages in lung. Hemosiderin granules in liver cells. Hemosiderin granules in brain. Coal pigment aggregates in lung tissue. To read articles and to prepare presentation	10	100

	1. An Overview of the Role of Lipofuscin in Age-Related Neurodegeneration Alexandra Moreno-García, Alejandra Kun, [...], and Miguel Calero. Frontiers in Neuroscience, 2018: 12: 464. 2. Specificity and Sensitivity of Hemosiderin-Laden Macrophages in Routine Bronchoalveolar Lavage in Children. Zeynep N. Salih, MD, Afreen Akhter, BA, and Javeed Akhter, MD. Archives of Pathology & Laboratory Medicine , Volume 130, Issue 11 (November 2006). 3. Iron homeostasis in the liver. Anderson ER, Shah YM. Iron homeostasis in the liver. *Compr Physiol*. 2013;3(1):315–330. doi:10.1002/cphy.c120016 4. REVIEW ARTICLE: The Involvement of Iron in Traumatic Brain Injury and Neurodegenerative Disease. Maria Daglas Front. Neurosci., 20 December 2018 | https://doi.org/10.3389/fnins.2018.00981		
3	**Hemodynamic Disorders** 1: Pathophysiologic categories of the oedema. Morphology of hyperaemia and congestion. Morphology of haemorrhage. General questions: Hemodynamic disorders. Oedema. Increased hydrostatic pressure. Lymphatic obstruction. Sodium and water retention. Hyperaemia and congestion. Haemorrhage. Images: Pulmonary edema. Acute pneumonia. Acute appendicitis. Chronic hepatic passive congestion. Hemorrhage in brain. Gastric Ulcer, Aortic laceration. To read articles and to prepare presentation 1. TOPICAL REVIEW. Local control of blood flow during active hyperaemia: what kinds of integration are important? Coral L. Murrant. The Journal of Physiology 593.21 (2015) pp 4699-4711	10	100
4	**Hemodynamic disorders II**: Haemostasis and thrombosis. Embolism. Shock. General questions: Normal hemostasis. Antithrombotic properties. Prothrombotic properties. Platelets. Coagulation cascade. Thrombosis. Embolism. Infarction. Shock. Major types of shock. Stages of shock. Images: Pulmonary embolism. Pulmonary infarction. Pulmonary tumor embolism. Acute coronary artery thrombosis. White infarct. Haemorrhagic infarct. To read articles and to prepare presentation: 1. Acute pulmonary embolism: a concise review of diagnosis and management. Hepburn-Brown M, Darvall J, Hammerschlag G. Intern Med J. 2019 Jan;49(1):15-27. doi: 10.1111/imj.14145. 2. **Thrombosis: a major contributor to global disease burden.** Raskob GE, Angchaisuksiri P et al. Arterioscler Thromb Vasc Biol. 2014; **34**: 2363-2371 3. The economic burden of incident venous thromboembolism in the United States: a review of estimated attributable healthcare costs. Grosse SD,	10	100

	Nelson RE, Nyarko KA, Richardson LC, Raskob GE. *Thromb Res.* 2016; 137: 3-10. 4. Epidemiology of venous thromboembolism. Heit JA. *Nat Rev Cardiol.* 2015; 12: 464-474 5. Epidemiology of cancer-associated venous thrombosis. Timp JF, Braekkan SK, Versteeg HH, Cannegieter SC *Blood.* 2013; 122: 1712-1723 6. Genetics of venous thrombosis**:** update in 2015. Morange P.E, Suchon P, Trégouët D.A *Thromb Haemost.* 2015; 114: 910-919 7. Silent pulmonary embolism in patients with deep venous thrombosis: a systematic review. Stein PD, Matta F, Musani MH, Diaczok B. *Am J Med.* 2010; 123: 426-431		
5	**Acute inflammation**: Overview of inflammation. Stimuli of inflammation. Vascular changes. Cellular events: leukocyte recruitment and activation. Leukocyte-induced tissue injury. Morphologic patterns of acute inflammation – Serous inflammation, Fibrinous inflammation. Images: Serous inflammation in lung. Fibrinous pericarditis. Acute pneumonia. Serous meningitis. Fibrinous perinephritis. To read articles and to prepare presentation: 1. Inflammatory responses and inflammation-associated diseases in organs Linlin Chen, Huidan Deng, [...], and Ling Zhao. Oncotarget. 2018 Jan 23; 9(6): 7204–7218. 2. Serous inflammation. N. W. H. WASHBURN, M.D. *JAMA.* 1898; XXX(20):1159-1161. doi:10.1001/jama.1898.72440720023001g 3. Resolution of Inflammation: What Controls Its Onset? Michelle A. Sugimoto, Lirlândia P. Sousa, [...], and Mauro M. Teixeira. Front Immunol. 2016; 7: 160. 4. Acute fibrinous and organizing pneumonia: two case reports and literature review Jingjing Lu, Qi Yin… & Qiang Li. *BMC Pulmonary Medicine* volume 19, 141 (2019)	10	100
6	**Chronic inflammation**: Granulomatous inflammation. Systemic effect of inflammation. Morphologic patterns of Chronic inflammation. To read articles and to prepare presentation: 1. Resolution of chronic inflammatory disease: universal and tissue-specific concepts Georg Schett, Markus F. Neurath Nature Communications volume 9, Article number: 3261 (2018) 2. Activation of Resolution Pathways to Prevent and Fight Chronic Inflammation: Lessons From Asthma and Inflammatory Bowel Disease. Front. Immunol., 23 July 2019 https://doi.org/10.3389/fimmu.2019.01699 3. Chronic diseases, inflammation, and spices: how are they linked? Ajaikumar B. Kunnumakkara, Bethsebie L. Sailo, Kishore Banik, *Journal of Translational Medicine* volume 16, Article number: 14 (2018) 4. From Pathogenesis, Clinical Manifestation, and Diagnosis to Treatment: An Overview on Autoimmune Pancreatitis Ou Cai and Shiyun Tan	10	100

	Gastroenterology Research and Practice 2017 https://doi.org/10.1155/2017/3246459		
7	**Tissue Renewal, Regeneration, and Repair I:** Regeneration. Proliferative capacities of tissue. Granulation tissue. Images: Scar. Regeneration of the ulcer base. The dead muscle with early replacement with granulation and fibro-connective tissue. The wall of an abscess that is organizing has granulation tissue. Granulation tissue. To read articles and to prepare presentation: 1. Wound healing - A literature review Ana Cristina de Oliveira Gonzalez An Bras Dermatol. 2016 Sep-Oct; 91(5): 614–620. doi: 10.1590/abd1806-4841.20164741 2. Granulation tissue formation and remodeling Lari Häkkinen, Hannu Larjava, Leeni Koivisto https://doi.org/10.1111/etp.12008 3. Skin Acute Wound Healing: A Comprehensive Review Luis Cañedo-Dorantes International Journal of Inflammation 2019 https://doi.org/10.1155/2019/3706315	10	100
8	**Tissue Renewal, Regeneration, and Repair** II: Sclerosis, Fibrosis, Cirrhosis Images: Healing skeletal muscles. Epithelium growing down the tract of colon perforation. Pancreosclerosis. Pneumosclerosis. Nephroscltrosis. Cardiosclerosis. To read articles and to prepare presentation: 1. Regeneration of injured skeletal muscle after the injury Tero AH Järvinen, Markku Järvinen, and Hannu Kalimo Muscles Ligaments Tendons J. 2013 Oct-Dec; 3(4): 337–345. 2. Skeletal muscle regeneration is modulated by inflammation WenjunYangPingHu Journal of Orthopaedic Translation Volume 13, April 2018, Pages 25-32 https://doi.org/10.1016/j.jot.2018.01.002 3. Foreign Body Granuloma After Cranial Surgery: A Systematic Review of Reported Cases. Akhaddar A[1], Turgut AT[2], Turgut M[3]. World Neurosurg. 2018 Dec;120:457-475. doi: 10.1016/j.wneu.2018.09.143. 4. The Living Scar – Cardiac Fibroblasts and the Injured Heart. Eva A Rog-Zielinska, Russell A Norris, Peter Kohl, and Roger Markwald Trends Mol Med. 2016 Feb; 22(2): 99–114. doi: 10.1016/j.molmed.2015.12.006 5. Characterization of Electrical Activity in Post-myocardial Infarction Scar Tissue in Rat Hearts Using Multiphoton Microscopy. Front. Physiol., 17 October 2018 | https://doi.org/10.3389/fphys.2018.01454	10	100
9	**General Pathology of Infectious diseases 1:** Mechanism of bacterial Injury. Mechanism of Viral Injury.	10	100

	General questions: Etiology, pathogenesis and morphologic pattern of Tuberculosis, Syphilis. Actinomycosis, Echinococcosis, Trichinellosis. Recommended Articles for Discussion: 1. Prachi B Tripathi, Anjali D Amarapurkar Morphological spectrum of gastrointestinal tuberculosis Tropical Gastroenterology DOI: http://dx.doi.org/ 2. Mihai Raul Popescu, Iancu Emil Pleșea, Marian Olaru Morphological aspects in tuberculosis of oral cavity – our experience and a review of the literature attempt. Rom J Morphol Embryol 2015, 56(3):967–987 3. Mann, K. J. Lung Lesions in Skeletal Tuberculosis. Review of 500 Cases. Lancet 1946 pp.744-9 ref.14 4. Ameeta E. Singh and Barbara Romanowski. Syphilis: Review with Emphasis on Clinical, Epidemiologic, and Some Biologic Features Clin Microbiol Rev. 1999 Apr; 12(2): 187–209. 5. Rebecca E. LaFond, Sheila A. Lukehart Biological Basis for Syphilis. Clinical Mycrobiology Reviews. DOI: 10.1128/CMR.19.1.29-49.2006 6. João Carlos Regazzi Avelleira; Giuliana Bottino. Syphilis: diagnosis, treatment, and control. An Bras Dermatol. 2006;81(2):111-26. 7. Rebecca E. LaFond, Sheila A. Lukehart Biological Basis for Syphilis. Clinical Mycrobiology Reviews. DOI: 10.1128/CMR.19.1.29-49.2006 8. João Carlos Regazzi Avelleira; Giuliana Bottino. Syphilis: diagnosis, treatment, and control. An Bras Dermatol. 2006;81(2):111-26.		
10	**Environmental and Nutritional Diseases:** Air Pollution, Effect of Tobacco, Effect of Alcohol, Obesity General questions: Pathogenesis and morphological patterns of Air Pollution, Effect of Tobacco. Effect of Alcohol, Obesity To read articles and to prepare presentation: 1. The Effects of Air Pollution on the Brain: a Review of Studies Interfacing Environmental Epidemiology and Neuroimaging. Paula de Prado Bert, Elisabet Mae Henderson Mercader, Jesus Pujol, Jordi Sunyer and Marion Mortamais. Curr Environ Health Rep. 2018; 5(3): 351–364. doi: 10.1007/s40572-018-0209-9 2. Air pollutants and early origins of respiratory diseases. Dasom Kim, Zi Chen, Lin-Fu Zhou, and Shou-Xiong Huang. Chronic Dis Transl Med. 2018 Jun; 4(2): 75–94. doi: 10.1016/j.cdtm.2018.03.003.	5	100
11	**Diseases of the Immune System**: Morphologic patterns of immune disorders. Images: Rheumatic heart disease: acute rheumatic endocarditis, acute rheumatic myocarditis. Chronic rheumatic endocarditis, chronic rheumatic endocarditis. Chronic granulomatous lymphadenitis. To read articles and to prepare presentation: 1. Diagnostic Testing and Interpretation of Tests for Autoimmunity Christine Castro, D.O. and Mark Gourley, M.D. J Allergy Clin Immunol. 2010 Feb; 125(2 Suppl 2): S238–S247. doi: 10.1016/j.jaci.2009.09.041	10	100

	2. Rheumatoid arthritis: Disease or syndrome? Jessica A Stanich, John D Carter, Judith Whittum-Hudson, and Alan P Hudson. Open Access Rheumatol. 2009; 1: 179–192. doi: 10.2147/oarrr.s7680 3. Inflammatory lesions in the bone marrow of rheumatoid arthritis patients: a morphological perspective Serena Bugatti, Antonio Manzo, Roberto Caporali, Carlomaurizio Montecucco *Arthritis Research & Therapy* volume 14, Article number: 229 (2012) 4. Nailfold Capillaroscopy in Rheumatic Diseases: Which Parameters Should Be Evaluated? Mahnaz Etehad Tavakol, Alimohammad Fatemi, Abdolamir Karbalaie, Zahra Emrani, and Björn-Erik Erlandsson. BioMed Research International https://doi.org/10.1155/2015/974530		
12	**Clinical correlation – case-study, body proof**: *Cell injury* (President and the Alzheimer's disease, the last queen of Egypt, The Medici, the Golden Mask) Hemodynamic disorders (The Sun King, the Mystery of the Painting, the Death of the Poet, the Inventor of Penicillin, the Death of the Genius), *Acute Inflammation* (the Ruler of Athens, Father of evolution theory, The Roman Emperor, Curse of the mummy). *Chronic inflammation* **(**the Lady of the Camellias, Another Rembrandt, the Story of a Kingor a Commander), *Regeneration and tissue repair* (the Story of the Titan, the Terminator, British Icon, German composer, Sting Like a Bee, the Ancient Artifact and Sir Walter Scott).	10	100
13	**Neoplasia**. Components of a tumor. Benign neoplasm. Malignant neoplasm. Anaplasia. Dysplasia. Carcinoma in situ. Metastasis. Tumors of epithelial origin. Images: Colonic polyp. The tumor consists of mucin-containing cysts mixed with sheets of squamoid cells. Colonic adenocarcinoma. Well-differentiated squamous cell carcinoma. Moderately-differentiated squamous cell carcinoma. Poorly-differentiated squamous cell carcinoma. Well differentiated adenocarcinoma. Undifferentiated carcinoma. Metastatic cancer to the liver. Metastatic cancer to the lung. Invasive squamous cell carcinoma. Prostate cancer. To read articles and to prepare presentation: 1. The Role of Large-Format Histopathology in Assessing Subgross Morphological Prognostic Parameters: A Single Institution Report of 1000 Consecutive Breast Cancer Cases Tibor Tot. International Journal of Breast Cancer, 2012 https://doi.org/10.1155/2012/395415 2. Micropapillary urothelial carcinoma: Clinico-pathologic review Aleksandr M.PerepletchikovAnil V.Parwani. Pathology - Research and Practice. Volume 205, Issue 12, 15 December 2009, Pages 807-810. https://doi.org/10.1016/j.prp.2009.07.016	10	100

	3. W. GlennMcCluggage Morphological subtypes of ovarian carcinoma: a review with emphasis on new developments and pathogenesis. Pathology, Volume 43, Issue 5, August 2011, Pages 420-43 https://doi.org/10.1097/PAT.0b013e328348a6e7 4. Eble JN, Young RH Carcinoma of the urinary bladder: a review of its diverse morphology. Seminars in Diagnostic Pathology, 30 Apr 1997, 14(2):98-108 PMID: 9179971 5. Enoch M. Sanders Jr., Virginia A. LiVolsi, James Brierley, Jennifer Shin, Gregory W. Randolph An evidence-based review of poorly differentiated thyroid cancer World Journal of Surgery May 2007, Volume 31, Issue 5, pp 934–945 6. Jae Hoon Lim Cholangiocarcinoma: Morphologic Classification According To Growth Pattern And Imaging Findings American Journal of Roentgenology 2003, Volume 181, Issue 3		
14	**Soft tissue tumours** (fibrous, fatty, bone, synovial tumours). General questions: Benign and malignant tumors of connective tissue and derivatives. Fibroma, fibrosarcoma. Lipoma, liposarcoma. Chondroma, chondrosarcoma. Osteoma, osteogenic sarcoma. Synovial sarcoma. Mesothelioma. Meningioma, invasive meningioma. Leomioma, leomiosarcoma. Rhabdomioma, rhabdomyosarcoma. To read articles and to prepare presentation: 1. McCormick D[1], Mentzel T, Beham A, Fletcher CD Dedifferentiated liposarcoma. Clinicopathologic analysis of 32 cases suggesting a better prognostic subgroup among pleomorphic sarcomas. The American Journal of Surgical Pathology, 30 Nov 1994, 18(12):1213-1223 DOI: 10.1097/00000478-199412000-00004 2. Gastrointestinal Stromal Tumors: Review on Morphology, Molecular Pathology, Prognosis, and Differential Diagnosis Markku Miettinen, MD and Jerzy Lasota, MD Archives of Pathology & Laboratory Medicine Volume 130, Issue 10 (October 2006) 3. Carolina Reyes, Yevgeniy Karamurzin, Norma Frizzell. Uterine smooth muscle tumors with features suggesting fumarate hydratase aberration: detailed morphologic analysis and correlation with S-(2-succino)-cysteine immunohistochemistry. Modern Pathology volume 27, pages1020–1027(2014)	10	100
15	**Leukaemia. Lymphomas**: Acute leukemia. Chronic leukemia. Lymphoid neoplasm. Myeloid neoplasm. Images: Diffuse effacement of lymph node by neoplastic lymphoid infiltrate. Chronic lymphocytic leukemia / Small cell lymphoma. Multiple myeloma. Neoplastic cells infiltrate the liver. Neoplastic cells infiltrate the kidney. To read articles and to prepare presentation: 1. Estella Matutes Aaron Polliack Morphological and Immunophenotypic Features of Chronic Lymphocytic Leukemia https://doi.org/10.1046/j.1468-0734.2000.00002.x	10	100

	2. David P.Steensma[a]AyalewTefferi[a]Chin-YangLi[b] Splenic histopathological patterns in chronic myelomonocytic leukemia with clinical correlations: reinforcement of the heterogeneity of the syndrome. Leukemia Research Volume 27, Issue 9, September 2003, Pages 775-782 https://doi.org/10.1016/S0145-2126(03)00006-7		
	Total	150	

Methods of teaching:

- Practical classes**:** Discussion on the topic, simulations, discussion of clinical cases, integrated with related disciplines.
- Mid-term control.
- Self-prepare work**:** work with literature.

Methods of knowledge and skills assessment:

- Current control: testing, validation check - lists of description of macro and micro images
- Mid-terms: written work based on the case study description.
- Final contro**l**: based on the description of macro and micro images.

The criteria and rules for assessing knowledge:

- Control is carried out in accordance to five competencies:
- **Current control:** the competence of knowledge assessed during 15 classes in the form of tests. The same tests allow to check the practical skills.
- **Mid-terms:** allows to evaluate the knowledge, skills, communication skills.
- **Final control:** the examination is conducted after the completion of training and based on the description of macro and micro images.

CHECK-LIST
Scale assessment of the current control of micro image.

№	"Steps"	What to do	amount of score
1	Name of organ and tissue, histological staining	To name an organ or tissue and morphological features of tissue (how do you identify the tissue), to determine the type of histological staining for the diagnosis (how do you identify the histological staining)	20
2	State structure of the organ: condition of parenchyma, condition of the stroma	To determine injury of organ architecture (how do you identify the organ architecture): To assess the condition of organ's parenchyma (how do you identify the organ's parenchyma); To assess the condition of stroma and vascular architecture (how do you identify the organ's stroma and vascular architecture)	20

3	Description of the pathological process	To provide a detailed description of the pathological process (how do you identify the pathological process)	20
4	Disease: Etiology, Complications and prognosis	To determine the underlying disease when it takes place: Cause of pathological process, To state complications and to assess prognosis of the disease	20
5	Conclusion	To provide an opinion regarding this pathology	20

Each "step" is evaluated at 0 (minimum) -10 (maximum) points, the final score is 100 points.

CHECK-LISTS
Mid-term

№	**Grading Criteria**	**level**			
		4 excellent 90-100	3 good 75-89	2 satisfied 50-74	**1** fall 49 -0
1.	Level of understanding of the pathological process	20	17	14	0
2.	Understanding of changes in the tissue	20	17	14	0
3.	Knowledge of relevant theories regarding pathological process	20	17	14	0
4.	Choice of examples	20	17	14	0
5.	Knowledge of professional terminology	20	17	14	0
	Total	100	85	70	

CHECK-LISTS
Oncommunication skills

№	**Criteria**	**level**			
		4 excellent 90-100	3 good 75-89	2 satisfied 50-74	**1** fall 49 -0
1.	Presentation skills	12	10	8	0
2.	Active listening skills	12	10	8	0
3.	Ability to transfer information in an accurate and specific manner	12	10	8	0
4.	Ability to express own point of view	12	10	8	0
5.	Compelling reasoning	12	10	8	0
6.	Ability to work with the audience	12	10	8	0
7.	Ability to work in teams	12	10	8	0
8.	Ability to provide supportive arguments for the case	12	10	8	0

CHECK-LIST
Criteria of presentation

Criteria	Level			
	4	3	2	1
Completeness and consistency of disclosure topics Maximum - 20 points	(18-20) Content of the presentation with the theme and objectives.Subject fully disclosed, slides presented in a logical sequence with the exact use of special terminology and symbols.Text slides written laconically clearly articulated ideas are set out briefly in a structured form.	(15-17) Content of the presentation with the theme and objectives. Theme is developed, the slides presented in a logical sequence using special terminology and symbols. Text slides written laconically clearly articulated ideas are set out briefly in a structured form.	(10-14) Content of the presentation with the theme and objectives. Subject disclosed is not enough, there is a logical representation of a sequence of slides. Slides saturated text material.	(0-9) The theme of the presentation was not disclosed
The ability to work with sources of information Maximum - 20 points	(18-20) Used current sources of information in sufficient quantity	(15-17) Used current sources of information.	(10-14) Used a limited number of sources of information, outdated information sources.	(0-9) No list of references, or used only Internet resources
Ability to summarize and draw conclusions Maximum - 20 points	(18-20) Well summarized material, provided clear and precise conclusions	(15-17) Good summary, draw the right conclusions	(10-14) Provided a summery, superficial conclusions	(0-9) The material is not summarized, no conclusions.
Submission of presentation and ability to answer questions Maximum – 20points	(18-20) The student knows well the material of the presentation, reports accurately, correctly, consistently using scientific terminology. When answering questions is able to defend his/her position and is able to respond	(15-17) The student knows the material of presentation, cannot easily describe the content of the presentation. Correctly answers to the most of the questions.	(10-14) The student does not know the material of the presentation, reading the text of the presentation. Can not answer most of the questions.	(0-9) Student has little familiarity with the material of the presentation, does not answer

	constructively to criticism.			the questions
Structure of the presentation Maximum 20	(18-20) Slides fully comply with the requirements. There is a title slide with the headline, presentation plan, a list of references and references. Slides are colorful, do not contain too much text, do not contain grammatical errors. Text of slide is visible from anywhere in the audience.	(15-17) Making slides complies with the requirements. There is a title slide with the headline, plan of the presentation, a list of references and. Slides are colorful, there are no serious problems with the slides. Texts of slide is visible from anywhere in the audience.	(10 – 14) Making a slide does not meet the requirements. Slides are decorated in different styles, contain fundamental errors	(0-9) Slides are full of texts
Total	100	75	50	0

CHECK-LISTS
Situational tasks solving

№	**Criteria for assessing the answers to 5 questions situational tasks**	**level**			
		4 excellent 90-100	4 excellent 90-100	4 excellent 90-100	4 excellent 90-100
1.	Understanding of the pathological process	20	17	14	0
2.	Clinical and morphological features of the pathological process	20	17	14	0
3.	Microscopic features of the pathological process	20	17	14	0
4.	Understanding of the pathogenesis of the pathological process	20	17	14	0
5.	Understanding of complications, outcome and prognosis of the disease	20	17	14	0

The final control - Testing practical skills

Current control "t " - Assessment of the level of formation of competences

t= (Z+N+K+P+S)/n

n - number of assignments in all competencies
Z: z1 + z2 + ... + zn - Ratings for knowledge
N: n1 + n2 + ... + nn - Ratings for practical skills
K: k1 + k2 + ... + kn - Ratings for communication competencies
P: p1 + p2 + ... + pn - Ratings for legal competencies
S: s1 + s2 + ... + sn - Ratings for Independent work of the student

Requirement of the admission to the final control:

Rating admission to the final assessment of the student is at least 60%, determined by the formula
Rd = (t + r2) / 6 × 0,6
where t - current control
r2 – midterms.

Final grade

Letter Grade	**GPA**	**Percentage**	Grade system
A	4,0	95-100	A - EXCELLENT - Exceptionally good performance, demonstrating a superior understanding of the subject matter, a foundation of extensive knowledge, and a skillful use of concepts and/or materials.
A-	3,67	90-94	
B+	3,33	85-89	B - GOOD - Good performance, demonstrating capacity to use the appropriate concepts, a good understanding of the subject matter, and an ability to handle the problems and materials encountered in the subject.
B	3,0	80-84	
B-	2,67	75-79	
C+	2,33	70-74	C - SATISFACTORY - Adequate performance, demonstrating an adequate understanding of the subject
C	2,0	65-69	
C-	1,67	60-64	
D+	1,33	55-59	

D	1,0	50-54	matter, an ability to handle relatively simple problems, and adequate preparation for moving on to more advanced work in the field. D - Minimally acceptable performance, demonstrating at least partial familiarity with the subject matter and some capacity to deal with relatively simple problems, but also demonstrating deficiencies serious enough to make it inadvisable to proceed further in the field without additional work.
F	0	0-49	F – FAIL - Unsatisfactory performance.