

## DESCRIPTION OF THE COURSE OF STUDY

<b>Course code</b>	<b>0912-7LEK-B2.6-P</b>	
<b>Name of the course in</b>	Polish	<b>Patologia</b>
	English	<b>Pathology</b>

### 1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

<b>1.1. Field of study</b>	Medicine
<b>1.2. Mode of study</b>	Full-time
<b>1.3. Level of study</b>	Uniform Master's studies
<b>1.4. Profile of study*</b>	General academic
<b>1.5. Person preparing the course description</b>	Piotr Lewitowicz MD, PhD
<b>1.6. Contact</b>	plewitowicz@ujk.edu.pl

### 2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

<b>2.1. Language of instruction</b>	English
<b>2.2. Prerequisites*</b>	Anatomy, histology, physiology, pathophysiology

### 3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

<b>3.1. Form of classes</b>	Lectures: 50, classes: 100,	
<b>3.2. Place of classes</b>	Lecture Halls at UJK Didactic rooms at UJK Autopsy room	
<b>3.3. Form of assessment</b>	Partial theoretical and practical tests ( web based PathXL test) Final theoretical and practical exam (web based PathXL test)	
<b>3.4. Teaching methods</b>	Lecture – lecture with multimedia presentation Class - discussion about current topic, working with digital pictures – macroscopic and microscopic pictures and slides. Discuss about predicting and prognostic factors. e-learning Autopsy – active participation in the autopsy , discussion about a case	
<b>3.5. Bibliography</b>	<b>Required reading</b>	1. V. Kumar, A. K. Abbas, J. C. Aster. Robbins and Cotran Pathologic Basis of Disease. IXth Edition, 2015, Elsevier. 2. V. Kumar, A. K. Abbas, J. C. Aster. Robbins Basic Pathology. IX Edition, 2013, Elsevier.
	<b>Further reading</b>	1. E. C. Klatt. Robbins and Cotran Atlas of Pathology, 3th Edition, 2015, Elsevier.

### 4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED LEARNING OUTCOMES

<p><b>4.1. Course objectives (including form of classes)</b></p> <p><b>Lecture</b></p> <p>C1 - The aim of the subject is to present the issues of general human pathology with particular regard to adaptation processes, inflammations, circulatory disorders, tumors.</p> <p>C2 - The aim is to know the pathogenesis of non-cancerous diseases and cancers.</p> <p>C3 - The goal is to get familiar with pathological methods as well knowing their limitations.</p> <p>C4 - The role of strict cooperation clinicians with pathologists.</p> <p>C5 - The goal is to know the relationship between the patient, the clinician and the pathomorphologist.</p> <p><b>Classes</b></p> <p>C1 - The aim of the exercises is to continue the issues presented during the lectures with a special emphasis on understanding the cause-effect sequence of organ diseases</p> <p>C2 – The goal is to get to know the detailed pathology of the organs</p> <p>C3 – The goal is to know the morphology of organs</p> <p>C4 – The aim is to know the morphological exponent of non-cancerous diseases and cancers</p>
<p><b>4.2. Detailed syllabus (including form of classes)</b></p> <p><b>Lectures, Classes</b> - The table of content</p>

## WINTER SEMESTER

1. **Lecture 1** – welcoming lecture and main topic: cellular responses, injury, adaptation and death – 4h
2. **Lecture 2** – Inflammation and wound healing – 4h
3. Class 1 – inflammation 4h
4. Class 2 – hemodynamic disorder, thromboembolic disease and shock – 4h –
5. **Lecture 3** – genetic disorders -4h
6. Class 3 – diseases of immune system – 4h
7. **Lecture 4** – neoplasia – 4h
8. **Lecture 5** – neoplasia part II – 4h
9. Class 4 – infectious disease – 4h
10. Class 5 – blood vessels – 4h
11. Class 6– 1-st test classes 1-5 – 2h
12. Class 7 - CNS – 4h and 1h e-learning
13. **Lecture 6** – environmental and nutritional disease – 3h
14. Class 8– disease of infancy and childhood – 4h
15. Class 9 – diseases of lymph nodes, white blood cells, spleen and thymus – 4h
16. Class 10 – autopsy 3h
17. Class 11 – the heart – 4h
18. Class 12 – diseases of red blood cells and bleeding disorders– 4h – e-learning
19. Class 13 –classes 6-14 review and summary 2h
20. Class 14- 2-nd test classes 6-13 – 2h
21. Lecture 7 – test - first semester content – 2h

## SUMMER SEMESTER

22. Class 15– respiratory system – 4h
23. Class 16 – head and neck diseases and upper GI -4h
24. **Lecture 8** – GI pathology – 4h
25. Class 17 - GI pathology (intestines pathology) – 4h
26. Class 18 – liver and biliary tree and pancreas – 4h
27. **Lecture 9** – Liver and biliary tree – 4h
28. Class 19 – kidney 4h
29. Class 20 – autopsy 2h
30. Class 21 – 3-rd test , classes 15-19 – 2h
31. Class 22– Urinary tract and male genital system – 4h
32. **Lecture 10** – Female genital system – 4h
33. Class 23 - female genital system – 4h
34. Class 24 – the breast – 3h
35. **Lecture 11** – endocrine system – 4h
36. Class 25 – endocrine system – 4h
37. Class 26 – the skin – 4h
38. **Lecture 12** – soft tissue tumors – 4h
39. **Lecture 13- bone and joints pathology 3h**
40. **Class 27** muscle, peripheral nerves and bone pathology – e-learning 5h
41. Class 28 – 4-th test classes 22-27 - 2h
42. Lecture14 – 2-nd semester test – 2h

### 4.3 Intended learning outcomes

Code	A student, who passed the course	Relation to learning outcomes
within the scope of <b>KNOWLEDGE</b> the graduate knows and understands:		
W01	the terminology used in anatomic pathology;	C.W26.
W02	basic mechanisms of tissue and cell damage	C.W27.
W03	determines the clinical course specific and non-specific inflammations and describes the regeneration of tissues and organs;	C.W28.
W04	the definition and pathophysiology of shock, with particular emphasis on the differentiation of shock and multiple organ failure's causes;	C.W29.
W05	the etiology of hemodynamic disturbances, retrogressive and progressive changes;	C.W30.
W06	the problems concerning specific organ pathology, macroscopic and microscopic images and the clinical course of pathological changes in various organs;	C.W31.
W07	the consequences of developing pathological changes for topographically adjacent organs;	C.W32.
W08	internal and external pathogens, both modifiable and non-modifiable;	C.W33.
W09	clinical forms of most common diseases of various systems and organs, metabolic diseases and disorders of water-electrolyte balance and acid-base balance;	C.W34.
within the scope of <b>ABILITIES</b> the graduate knows how to:		
U01	operate the optical microscope, also making use of immersion;	A.U1.
U02	recognize histological structures of organs, tissues, cells and cellular structures on the optical or histological microscope images, makes descriptions and interprets the structure and relations between the structure and the function;	A.U2.
U03	understand the relation between images of tissue and organ damage and clinical symptoms of the disease, medical history and the results of laboratory determinations;	C.U11.

### 4.4. Methods of assessment of the intended learning outcomes

Teaching outcomes (code)	Method of assessment (+/-)																				
	Exam oral/written*			Test*			Project*			Effort in class*			Self-study*			Group work*			Others*		
	Form of classes			Form of classes			Form of classes			Form of classes			Form of classes			Form of classes			Form of classes		
	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...
W01	+				+														+	+	
W02	+																		+	+	
W03					+														+	+	
W04	+																			+	
W05	+																			+	
W06					+															+	
W07					+															+	
W08	+																			+	
W09	+																			+	
U01					+						+									+	
U02					+						+									+	
U03					+															+	

\*delete as appropriate

4.5. Criteria of assessment of the intended learning outcomes		
Form of classes	Grade	Criterion of assessment
lecture (L)	3	61-68% The result of the practical and theoretical tests
	3,5	69%-76% The result of the practical and theoretical tests
	4	77%-84% The result of the practical and theoretical tests
	4,5	85%-92% The result of the practical and theoretical tests
	5	93%-100% The result of the practical and theoretical tests
classes (C)*	3	61-68% The result of the practical and theoretical tests
	3,5	69%-76% The result of the practical and theoretical tests
	4	77%-84% The result of the practical and theoretical tests
	4,5	85%-92% The result of the practical and theoretical tests
	5	93%-100% The result of the practical and theoretical tests

#### 5. BALANCE OF ECTS CREDITS – STUDENT'S WORK INPUT

Category	Student's workload
	Full-time studies
<i>NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/</i>	<b>150</b>
<i>Participation in lectures*</i>	<b>50</b>
<i>Participation in classes, seminars, laboratories*</i>	<b>100</b>
<i>Preparation in the exam/ final test*</i>	
<i>Others*</i>	
<i>INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/</i>	<b>175</b>
<i>Preparation for the lecture*</i>	<b>95</b>
<i>Preparation for the classes, seminars, laboratories*</i>	<b>70</b>
<i>Preparation for the exam/test*</i>	<b>10</b>
<i>Gathering materials for the project/Internet query*</i>	
<i>Preparation of multimedia presentation</i>	
<i>Others (please specify e.g. e-learning)*</i>	
<b>TOTAL NUMBER OF HOURS</b>	<b>325</b>
ECTS credits for the course of study	<b>13</b>

*\*delete as appropriate*

*Accepted for execution (date and legible signatures of the teachers running the course in the given academic year)*

18.07.2019 Piotr Lewitowicz MD, PhD