SYLLABUS of the MODULE (SUBJECT)

valid from the academic year 2017/2018

General Information

Module title	***PATHOMORPHOLOGY***
Module type	*Obligatory*
Faculty	*Faculty of Medicine*
Field of study	*Medicine*
Major	*Not applicable*
Level of study	long-cycle (S2J)
Mode of study	intramural
Year of studies, semester	*Year II, semester III and IV* *Year III, semester V*
ECTS credits (incl. semester breakdown)	*12 (5+5+7)*
Type/s of training	*seminars (50h)/ practical/ (130h)*
Form of assessment	*- graded assessment: ** □ *descriptive* □ *test* □ *practical* □ *oral* □ *non-graded assessment ** *- final examination: ** □ *descriptive* □ *test* □ *practical* □ *oral*
Head of the Department/ Clinic, Unit	Prof. dr hab. n. med. Elżbieta Urasińska
Tutor responsible for the module	Prof. dr hab. n. med. Elżbieta Urasińska
Department's/ Clinic's/ Unit's website	https://www.pum.edu.pl/wydzialy/wydzial-lekarski/Katedra-i-Zaklad-Patomorfologii
Language	English

***replace □ with X where applicable**

Detailed information

Module objectives		
Prerequisite /essential requirements	Knowledge	Basic knowledge of human anatomy, histology, pathophysiology, biochemistry.
	Skills	Ability to work using a microscope, computer skills. Critical reading of professional literature.
	Competences	Self-education, responsibility for entrusted good, group work skills, interpersonal communication skills, understanding of the need to learn throughout life.

Description of the learning outcomes for the subject /module			
No. of learning outcome	**Student, who has passed the (subject) knows /is able to /can:**	**SYMBOL (referring the standards) ZEK**	**Method of verification of learning outcomes ***
W01	knows such processes as: cell proliferation, differentiation and aging, cell cycle, apoptosis and necrosis and their significance with regard to body functions	K_B.W22	To complete the pathomorphology course student is expected to pass 6 MCQ tests and the exam. The exam consists of the practical part (one has to discuss and diagnose 3 histological slides) and the theory MCQ test (125 questions).
W02	knows the ways of cell-to-cell and cell-extracellular matrix communication, intracellular transductions signal pathways and examples of these processes responsible for carcinogenesis and other pathologies	K_B.W21	See above
W03	knows potential of the use of contemporary telemedicine as a tool supporting medical practice	K_B.W33	See above
W04	knows issues regarding neoplasm immunity	K_C.W23	See above
W05	Knows pathomorphological terminology	K_C.W25	See above
W06	knows the basic mechanisms of cells and tissue injury	K_C.W26	See above
W07	defines clinical course of specific and non-specific inflammation and describes the processes of regeneration of tissues and organs	K_C.W27	See above
W08	knows definition and pathophysiology of shock with special regard to differentiation of its causes and multi-organ failure	K_C.W28	See above
W09	knows etiology of hemodynamic disturbances, progressive and retrogressive changes	K_C.W29	See above

W10	knows issues regarding special pathology, macro- and micro-images and clinical course of pathomorphological changes of particular organs	K_C.W30	See above
W11	describes the consequences of the development of pathological changes for adjacent organs	K_C.W31	See above
U01	makes decision on cytological and molecular examination	K_C.U3	See above
U02	associates images of damage to tissues and organs with clinical symptoms, history interviews and results of laboratory determination	K_C.U11	See above
U03	analyzes reaction, defense and adaptation phenomena and regulatory disturbances caused by etiological factors	K_C.U12	See above
K01	accepts the need for standards of conduct	K_K01	See above
K02	recognizes concept and need for responsibility for property he/she has been entrusted with	K_K02	See above
K03	Demonstrates the awareness for self-education, understands the need for continuing professional education, can inspire and organize learning processes in others	K_K03	See above
K04	can form opinions on different aspects of professional activity	K_K06	See above
K05	accepts the need to speak foreign language	K_K10	See above
K06	maintains professional confidentiality	K_K14	See above

Table presenting learning outcomes of the subject/module in relation to the form of classes

No.	SYMBOL (referring the standards) ZEK	Type/s of training							
		Lecture	Seminar	Practical classes	Clinical classes	…	…	…	Other…
1.	K_B.W22		X	X					
2.	K_B.W21		X	X					
3.	K_B.W33		X	X					
4.	K_C.W23		X	X					
5.	K_C.W25		X	X					
6.	K_C.W26		X	X					

7.	K_C.W27		X	X					
8.	K_C.W28		X	X					
9.	K_C.W29		X	X					
10.	K_C.W30		X	X					
11.	K_C.W31		X	X					
12.	K_C.U3		X	X					
13.	K_C.U11		X	X					
14.	K_C.U12		X	X					
15.	K_K01		X	X					
16.	K_K02		X	X					
17.	K_K03		X	X					
18.	K_K06		X	X					
19.	K_K10		X	X					
20.	K_K14		X	X					

Module (subject) contents no.	**Description of teaching programme**	**No. of hours**	**References to learning outcomes**
	2 year		
	Seminars:		
TK01	Introduction to pathology. Right-sided and left-sided cardiac failure.	1	K_C.W25, K_C.W26, K_C.W28, K_C.W29, K_C.W30, K_K01 - 06
TK02	Myocardial infarction	1	K_B.W22, K_C.W25, K_C.W26, K_C.W28, K_C.W29, K_C.W30, K_K01 - 06
TK03	Fatty change. Necrosis	1	K_B.W22, K_C.W25, K_C.W26, K_C.W29, K_C.W30, K_K01 - 06
TK04	Adaptive changes in cell growth and differentiation (hypertrophy, hyperplasia, metaplasia, dysplasia, atrophy).	1	K_B.W22, K_C.W25, K_C.W26, K_C.W27, K_C.W29, K_C.W30, K_K01 - 06
TK05	Apoptosis.	1	K_B.W22, K_C.W25, K_C.W26, K_C.W30, K_K01 - 06
TK06	Tuberculosis.	1	K_C.W25, K_C.W27, K_C.W30, K_K01 - 06
TK07	Rheumatic fever. Endocarditis.	1	K_C.W25, K_C.W27, K_C.W30, K_K01 - 06
TK08	Neoplasms (definition, nomenclature, epidemiology, metastases, grading, staging, diagnosis).	2	K_B.W21, K_C.W23, K_C.W25, K_C.W30, K_K01 - 06
TK09	Gastric carcinoma	1	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK10	Lung carcinoma. Carcinoma of the kidney. Malignant mesothelioma.	3	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK11	Neoplasms (molecular basis of carcinogenesis).	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK12	Uterine cervix pathology.	1	K_C.W25, K_C.W30,

			K_C.W31, K_K01 - 06
TK13	Carcinoma of the breast	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK14	Carcinoma of the prostate.	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK15	Gestational trophoblastic disease.	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK16	Neoplasms of the thyroid.	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK17	Malignant melanoma.	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK18	Vascular tumors.	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK19	Wilms tumor. Neuroblastoma.	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK20	Smoking related diseases	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK21	Vasculitis.	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
	Practical classes:		
TK01	CIRCULATORY DISORDERS – 1	5	K_C.W25, K_C.W26, K_C.W28, K_C.W29, , K_C.W30, K_K01 - 06
TK02	CIRCULATORY DISORDERS – 2	5	K_C.W25, K_C.W26, K_C.W28, K_C.W29, , K_C.W30, K_K01 - 06
TK03	DEGENERATIVE AND PROLIFERATIVE CHANGES – 1	5	K_C.W25, K_C.W26, K_C.W28, K_C.W29, , K_C.W30, K_K01 - 06
TK04	DEGENERATIVE AND PROLIFERATIVE CHANGES – 2	5	K_C.W25, K_C.W26, K_C.W28, K_C.W29, , K_C.W30, K_K01 - 06
TK05	INFLAMMATION – 1	5	K_C.W25, K_C.W26, K_C.W28, K_C.W29, , K_C.W30, K_K01 - 06
TK06	INFLAMMATION – 2	5	K_C.W25, K_C.W26, K_C.W28, K_C.W29, , K_C.W30, K_K01 - 06
TK07	NEOPLASMS – 1	5	K_C.W25, K_C.W26, K_C.W28, K_C.W29, , K_C.W30, K_K01 - 06
TK08	NEOPLASMS – 2	5	K_C.W25, K_C.W26, K_C.W28, K_C.W29, , K_C.W30, K_K01 - 06
TK09	FEMALE GENITAL TRACT PATHOLOGY – 1	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK10	PATHOLOGY OF THE BREAST	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK11	MALE GENITAL TRACT PATHOLOGY	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK12	PATHOLOGY of THYROID and ADRENAL GLAND	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06

TK13	SKIN PATHOLOGY	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK14	CIRCULATORY SYSTEM PATHOLOGY	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK15	CHILDREN DISEASES	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK16	RESPIRATORY TRACT PATHOLOGY	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TH17	AUTOPSIES	6	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
	3 year		
	Seminars:		
TK01	Carcinoma of the esophagus	1	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK02	Tumors of the liver	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK03	Idiopathic inflammatory bowel disease (Crohn disease, ulcerative colitis).	1	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK04	Rheumatoid arthritis.	1	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK05	Carcinoma of the larynx. Nasopharyngeal carcinoma.	1	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK06	GIST. Neuroendocrine tumors.	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK07	Alzheimer disease.	1	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK08	Hodgkin lymphoma	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK09	Carcinoma of the urinary bladder.	1	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK10	Glomerular diseases.	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK11	Predictive and prognostic factors in pathology	2	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
	Practical classes:		
TK01	GASTROINTESTINAL TRACT PATHOLOGY – 1	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK02	GASTROINTESTINAL TRACT PATHOLOGY – 2	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK03	GASTROINTESTINAL TRACT PATHOLOGY – 3	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK04	MUSCULOSKELETAL SYSTEM PATHOLOGY	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK05	HEAD AND NECK PATHOLOGY	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK06	NERVOUS SYSTEM PATHOLOGY	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK07	HEMATOPOIETIC AND LYMPHOID SYSTEM	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06

	PATHOLOGY		
TK08	URINARY TRACT PATHOLOGY	5	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06
TK09	AUTOPSIES	4	K_C.W25, K_C.W30, K_C.W31, K_K01 - 06

Booklist
Obligatory literature:
1. Kumar, Abbas, Aster "Robbins Basic Pathology, 10th ed. W.B. Saunders Co., 2017 (Hardcover ISBN: 9780323353175)
2. W. Domagała, M. Chosia, E. Urasińska: "Atlas of histopathology". 1st edition, 2006 (ISBN 83-200-3476-0)
Supplementary literature:
1.
2.

Student's workload (balance sheet of ECTS credits)			
Form of student's activity (in-class participation; activeness, produce a report, etc.)	Student's workload [h]		
	Tutor	Student	Average
Contact hours with the tutor	180		
Time spent on preparation to seminars/ practical classess	180		
Time spent on reading recommended literature	20		
Time spent on writing report/making project	10		
Time spent on preparing to colloqium/ entry test	60		
Time spent on preparing to exam	40		
Other …..			
Student's workload in total	490		
ECTS credits for the subject (in total)	17		

Remarks

* Selected examples of methods of assessment:
EP – written examination
EU – oral examination
ET – test examination
EPR – practical examination
K – colloqium
R – report
S – practical skills assessment

RZĆ – practical classes report, incl. discussion on results
O – student's active participation and attitude assessment
SL – lab report
SP – case study
PS - assessment of student's ability to work independently
W – entry test
PM – multimedial presentation
other…