



# Pomeranian Medical University in Szczecin

## SYLLABUS of the MODULE (SUBJECT)

valid from the academic year 2017/2018

### General Information

<b>Module title</b>	<i>Internal diseases- hematology</i>
Module type	<i>Obligatory</i>
Faculty	<i>Faculty of Medicine</i>
Field of study	<i>Medicine</i>
Major	<i>Not applicable</i>
Level of study	<i>long-cycle (S2J)</i>
Mode of study	<i>Intramural</i>
Year of studies, semester	<i>Year V semester IX and X Year VI semester XI and XII</i>
ECTS credits (incl. semester breakdown)	
Type/s of training	<i>V-th year: seminars (10h) and practical classes (22h) VI-th year: practical classes (60h)</i>
Form of assessment	<p><i>- graded assessment: *</i></p> <p><input type="checkbox"/> <i>descriptive</i></p> <p><input type="checkbox"/> <i>test</i></p> <p><input type="checkbox"/> <i>practical</i></p> <p><input type="checkbox"/> <i>oral</i></p> <p><i>X non-graded assessment *</i></p> <p><i>- final examination: *</i></p> <p><input type="checkbox"/> <i>Descriptive</i></p> <p><i>X test</i></p> <p><i>X practical</i></p> <p><input type="checkbox"/> <i>Oral</i></p>
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Tutor responsible for the module	<i>Prof. Barbara Zdziarska PhD, MD Aleksandra Łanocha PhD, MD; e-mail: <a href="mailto:aleksandra.lanocha@pum.edu.pl">aleksandra.lanocha@pum.edu.pl</a></i>
Department's/ Clinic's/ Unit's website	<i>Department of Hematology and Transplantology Unii Lubelskiej Street 1, 71-252 Szczecin Pomeranian Medical University Phone: +48-91-425-33-47 e-mail: <a href="mailto:klinhem@pum.edu.pl">klinhem@pum.edu.pl</a></i>
Language	<i>English</i>

\*replace ☐ with X where applicable**Detailed information**

Module objectives			
Prerequisite /essential Requirements	Knowledge	1. Knowledge of histology and physiology of blood and bone marrow 2. Knowledge of pathophysiology and pathology 3. Knowledge of pharmacology 4. Basics of human genetics 5. Basic of diagnostic methods	
	Skills	1. takes history interview of adult patient 2. carries out complete and guided physical examination of adult patient 3. plans diagnostics procedures	
	Competences	1. Demonstrates the awareness for self-education	
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 environmental and epidemiological conditions of most frequent diseases	K_E.W1	Single-choice final test (FT) 20 questions, Regular attendance, FT at least 60% of correct answers on test
W02	knows and recognizes causes, symptoms, diagnoses and therapeutic procedures with regard to the most frequent internal diseases in adults and related complications: a) circulatory system diseases incl.: ischemic heart disease, organic heart diseases, endocardium, myocardium and pericardium diseases, heart failure (acute and chronic), angiopathy, primary and secondary hypertension and pulmonary hypertension, b) respiratory tract diseases incl.: airway diseases, chronic obstructive pulmonary diseases, bronchial asthma, bronchiectasis, mucoviscidosis, respiratory tract infection, interstitial disease of lungs, pleura and mediastinum, obstructive and sleep apnea, acute and chronic respiratory failure, respiratory system neoplasm c) alimentary system diseases, incl.: stomatopathy, esophagus diseases, gastrosis, diseases of duodenum, enteropathy, diseases of hepatopathy, pancearopathy, cholepathy, cholecystopathy d) endocrine system diseases, incl.: disorders of hypothalamus, hypophysis, thyroid, parathyroid, adrenal cortex, adrenal medulla, ovariopathy, orchopathy, neuroendocrine tumour disease, endocrine polyglandular syndrome, different types of diabetes and metabolic syndrome, hypoglycemia, obesity and dyslipidemia e) nephropathy and diseases of urinary tract incl. : acute and chronic renal failure, diseases of renal glomerules and interstitial diseases of kidneys, renal cyst, nephrolithiasis, urinary tract infections, urinary tract neoplasm, in particular bladder cancer and renal cancer f) diseases of hematopoietic system, incl.: panmyelophthisis, anemia, granulocytopenia and granulocytosis,	K_E.W7	

	trombocytopenia, acute leukemia, myeloproliferative and myelodysplastic-myeloproliferative diseases, myelodysplasia syndrome, B and T cell lymphoma, hemorrhagic diathesis, thrombophilia, life-threatening states in hematology, dyshematopoiesis in the failure of other organs g) rheumatic diseases, incl.: systemic connective tissue disease, systemic vasculitis arthritis of the spine, metabolic diseases of bones, in particular osteoporosis and arthrosis, uratic gout h) allergic diseases, incl.: anaphylaxis and anaphylactic shock, angioneurotic edema i) water-electrolyte and base-acid disorders: dehydration, overhydration, electrolytic equilibrium disorder, acidosis and alkalosis		
W03	knows environmental and epidemiological conditions for most frequent human neoplasms	K_E.W23	Single-choice final test (FT) 20 questions, Regular attendance, FT at least 60% of correct answers on test
W04	knows bases of early detection of neoplasms and rules of oncological screening	K_E.W24	
W05	knows potential of modern neoplasm therapy (incl. multimodal therapy), perspectives for gene and cellular therapy and their undesirable consequences	K_E.W25	
W06	knows the rules of combined therapy in oncology, algorithms of diagnosis and treatment procedures with regard to most frequent human neoplasms	K_E.W26	
W07	knows theoretical and practical bases of laboratory diagnostics	K_E.W38	
U01	takes history interview of adult patient	K_E.U1	
U02	carries out complete and guided physical examination of adult patient	K_E.U3	
U03	carries out differentiation diagnostics of most frequent diseases in adults and children	K_E.U12	
U04	plans diagnostics, therapeutic and preventive procedures	K_E.U16	
U05	suggests individualization of applicable therapeutic guidelines and other treatment methods because of ineffectiveness or contra-indications with regard to standard treatment	K_E.U18	
U06	performs basic procedures and operations, incl.: a) body temperature measurement, sphygmometry, blood pressure measurement b) monitoring life parameters using of cardiac monitor, pulse oximetry c) spirometry, oxygen therapy, forced and replacement ventilation d) introduction of mouth-throat tube e) intravenous, intramuscular and subcutaneous injections, cannulation of peripheral veins, drawing peripheral venous blood, sampling urine culture, drawing arterial blood, drawing arterialized capillary blood f) nose, throat and skin swabs, pleural cavity puncture e) urinary bladder catheterization in women and men, passage of gastric tube into stomach, gastric lavage, enema f) standard resting electrocardiogram c/w interpretation, electrical cardioversion and defibrillation g) simple strip tests and glucose concentration measurement	K_E.U29	
U07	assists with performing and interprets the result of the	K_E.U30	Single-choice final

	following procedures and operations: a) transfusion of blood and blood-derivatives b) pleural cavity drainage c) heart sac puncture d) peritoneal cavity puncture e) lumbar puncture f) thin-needle biopsy g) epidermal tests h) intradermal and scarification tests		test (FT) 20 questions, Regular attendance, FT at least 60% of correct answers on test
U08	plans specialist consultations	K_E.U32	
U09	recognizes agony and states death	K_E.U37	
U10	keeps medical documentation	K_E.U38	
K01	Demonstrates the awareness for self-education, understands the need for continuing professional education, can inspire and organize learning processes in others	K_K03	
K02	is aware of patients' rights	K_K11	
K03	seeks to maintain the standing of the medical profession	K_K13	
K04	maintains professional confidentiality	K_K14	
K05	is aware of his/her own limitations and knows when to refer to experts	K_K17	
K06	respects patients/customers/social groups and makes decisions in their best interest	K_K20	

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_E.W1		X						
2.	K_E.W7		X						
3.	K_E.W23		X						
4.	K_E.W24		X						
5.	K_E.W25		X						
6.	K_E.W26		X						
7.	K_E.W38		X						
8.	K_E.U1			X					
9.	K_E.U3			X					
10.	K_E.U12			X					
11.	K_E.U16			X					
12.	K_E.U18			X					
13.	K_E.U29			X					
14.	K_E.U30			X					
15.	K_E.U32			X					
16.	K_E.U37			X					
17.	K_E.U38			X					
18.	K_K03			X					
19.	K_K11			X					
20.	K_K13			X					
21.	K_K14			X					
22.	K_K17			X					

23.	K_K20			X				
Module (subject) contents no.	Description of teaching programme	No. of hours	References to learning outcomes					
V-th year								
	Seminars:							
TK01	Introduction to hematology, bone marrow, laboratory tests in hematology and their interpretation:	1h	W02, W07					
TK02	Deficiency anemia’s (iron deficiency anemia, vitamin B12 deficiency anemia and folic acid deficiency anemia)	1h	W01, W02, W07					
TK03	Hemolytic anemia’s (congenital and acquired). Anemia of chronic disease	1h	W01, W02, W07					
TK04	Hemorrhagic diatheses caused by platelets and vessel abnormalities	1h	W01, W02, W07					
TK05	Hemorrhagic diatheses caused by plasma factor disorders	1h	W01, W02, W07					
TK06	Myeloproliferative neoplasms (CML, PV, ET and PMF)	1h	W01, W02, W03, W04, W05, W06, W07					
TK07	Malignant lymphomas, multiple myeloma and other monoclonal gammopathies	1h	W01, W02, W03, W04, W05, W06, W07					
TK08	Emergencies in hematology	1h	W02, W07					
TK09	Acute leukemias	1h	W01, W02, W03, W04, W05, W06, W07					
TK10	Bone marrow – and stem cell transplantation	1h	W02, W07					
	Practical classes:							
TK01	Practical classes at patient’s bed in the Department of Hematology and Transplantology	21h	U01, U02, U03, U04, U05, U08, U10, K01, K02, K03, K04, K05, K06					
TK02	Final test.	1h						
VI-th year								
	Practical classes:							
TK01	Practical classes at patient’s bed in the Department of Hematology and Transplantology	60h	U01, U02, U03, U04, U05, U06 U07, U08, U09, U10, K01, K02, K03, K04, K05, K06					
Booklist								
Obligatory literature:								
1. Walker BR, Colledge NR “Davidson’s Principles and Practice of Medicine; 21 <sup>st</sup> Edition								
2. Y. Gargani “Haematology and Immunology “ Crash Course 4 <sup>th</sup> Edition, 2012.								
Supplementary literature:								
1. Kaushansky K, Lichtman M „Williams Hematology” 9th Edition								
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	10		
Time spent on preparation to seminars/ practical classess	20		
Time spent on reading recommended literature	20		
Time spent on writing report/making project			
Time spent on preparing to colloquium/ entry test	5		
Time spent on preparing to exam			
Other .....			
Student's workload in total	55		
<b>ECTS credits for the subject (in total)</b>			
<b>Remarks</b>			
Seminars are held every day in the seminar room I–th floor, DK9 room (CDiLN building), Unii Lubelskiej Street 1, 71-252 Szczecin. Students are obliged to be prepared for every seminar according to the plan posted on this board. Exercises at the patient's bed are held in the Department of Hematology and Transplantology. Students are obliged to change their clothes before seminars begin and bring their own stethoscopes. Attendance at the seminars and exercises at the patient's bed is obligatory. Students who have been absent must (within 14 days) present a document justifying their absence signed either by a doctor or by the Dean. If the student has justifying his/ her absence , he/ she will be allowed to work up the day they have missed – best with the next group of students. If the work up of missed days is not possible with the next group – the next date will be announced by the clinic. If a student missed more than 3 days from this 6-days course of hematology she/he must attend the whole course again with another group. If a student has been absent and did not bring a justifying document within 2 weeks she/ he will be obliged to work up a double amount of hours according to the plan established by the Clinic. In order to obtain a signature in the student book, the student must be present on all days, participate actively in the seminars and exercises , and obtain 60% of the total score on the test written on the last day of the course. A student who fails the test has possibility to obtain a positive result in another test written in the presence of the tutor. If the students fails this, the third possibility is determined by the head of the Department of Hematology and Transplantology.			

\* Selected examples of methods of assessment:

EP – written examination

EU – oral examination

ET – test examination

EPR – practical examination

K – colloquium

R – report

S – practical skills assessment

RZC – 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...