Pomeranian Medical University in Szczecin

SYLLABUS of the MODULE (SUBJECT) General Information

Name of the module	Immunology
Module type	*Obligatory*
Faculty	*Faculty of Medicine (WLA)*
Field of Study	*medicine (KL)*
Major	*Not applicable*
Level of the studies	*II level/ long-cycle (2J)*
Speciality	*Not applicable*
Mode of the studies	*intramural*
Year of the studies	*II, semester I*
ECTS points	*4*
Forms of the classes	*Seminars 25h, practical classes 30h*
Credit form	*-Graded credit* □ *essay* ☒ *test* □ *practical* □ *oral* *-Non-graded credit* *-Final exam* □ *essay* □ *test* □ *practical* □ *oral*
Head of the unit	*Iwona Wojciechowska-Koszko MSc, PhD*
Teaching coordinator	*Title/degree/ e-mail address:* *Bartosz Wojciuk MD, PhD bartosz.wojciuk@pum.edu.pl*
Unit data	*Independent Laboratory for Diagnostic Immunology*
Website	*https://www.pum.edu.pl/wydzialy/wydzial-lekarski/zakladdiagnostyki-immunologicznej*
Language	English

Detailed information

Module objectives		Explanation of basic and clinical immmunology issues, in particular: mechanisms of proper immune reactions as well as immune system disorders, prevention and treatment of immune-mediated diseases, principles of immunological laboratory diagnostics.
Prerequisite /essential requirements	Knowledge	Competences in biology relevant for secondary school graduation. Other competences in microbiology, molecular biology, patophysiology and biochemistry relevant for higher education.
	Skills	
	Social skills	Orderliness, self- education habits, team activity

Description of the learning outcomes for the subject /module			
Number of learning outcome	**Student, who has passed the (subject) Knows /is able to /can:**	**SYMBOL (referring the standards) EKK**	**Method of verification of learning outcomes**
W01	Knows the principles of immune system development and function including innate and adaptive, cellular and humoral immunity.	C.W21	R, T
W02	Describes major histocompatibility complex.	C.W22	R, T
W03	Knows the types of hypersensitivity, sorts of immune deficiencies and the principles of immunomodulation.	C.W23	R, T
W04	Knows the issues of tumor immunity.	C.W24	R, T
W05	Recognizes the genetic background of graft donor-recipient matching and the principles of transplant immunology.	C.W25	R, T
U01	Applies the current modifications of an antigen-antibody reaction in the diagnostics of contagious, allergic, autoimmune diseases, haematological dieseases and solid tumors.	C.U8	R, T
K01	Recognizes own limitations and educational needs.	K_K03	0

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

Number	**Symbol**	**Types of courses**							
		Lecture	**Seminar**	**Practical classes**	**Clinical classes**				**Other**
W01	C.W21		X	X					

W02	C.W22		X	X					
W03	C.W23		X	X					
W04	C.W24		X	X					
W05	C.W25		X	X					
U01	C.U8		X	X					
K01				X					

	Module (subject) contents		
mbol of aching ogramme	**Content of the teaching programme**	**No. of hours**	**Reference to learning outcomes**
	Seminars:		
TK 01, TK02	Introduction to immunity. Humoral components of innate immunity. Cellular components of innate immunity.	4	C.W21, C.U8
K03, TK04	Cellular and humoral adaptive immunity.	4	C.W21, C.U8
K06, TK07	Immunity against infections. Ontogeny of the immune system. Immunodeficiencies. Vaccinations.	4	C.W21, C.W23, C.U8
TK08	Hypersensitivities. Autoimmunization.	4	C.W23, C.U8
K06, TK10	Transplantation immunology. Immunology of reproduction. Tumor immunology	4	C.W22, C.W24, C.W25 K_C.U8
K05, TK10	Immunological diagnostics- introduction to the practical classes, Haematoimmunology. Immunotherapy. Summary.	4	C.W21,
	Practical classes		
K01, TK02	Introduction to immunity. Cellular and humoral components of innate immunity.	4	C.W21, C.U8
K03, TK04	Cellular and humoral adaptive immunity.	4	C.W21 C.U8
K05, TK06	Immunological diagnostics of infections.	4	C.W21, C.W23, C.U8
T, K08	Hypersensitivities and autoimmunity diagnostics.	8	C.W23, C.U8
TK09	Transplantation immunology	4	C.W22, C.W25, C.U8
	Online consultations	3	

	References and educational resources
1.	2. David Male, Jonathan Rostoff, David Roth, Ivan Roitt, Immunology, ed. 8, Elservier, 2008

Form of student's activity (in-class participation; activeness, produce a report, etc.)		**Workload [h]**		
		Tutor	**Student**	**Average**
ctivities that require direct participation of tutors		30		
eparation to the classes		50		
eading of the indicated/specified literature		5		
eport writing/project making		5		
me spent to prepare for the exam		30		
her				
Student's workload in total		120		
ECTS points for the subject		**4**		

	Remarks at the end

Methods of assessment, for example:

E – exam- problem resolving
S – verifying of practical skills
R – report
D – discussion
P – presentation
T-test