



# Pomorski Uniwersytet Medyczny w Szczecinie

## MODULE SYLLABUS (SUBJECT)

### General information

Module code	PUM-WLA KL - S2J	Module name	Clinical Pharmacology
Module type			<i>Obligatory</i>
PMU Faculty			<i>Faculty of medicine</i>
Field of study			<i>medicinne</i>
<i>Specialty</i>			<i>Not applicable</i>
Study level			<i>Uniform master</i>
Type of study			<i>stationary, non-stationary</i>
Year of study			<i>V</i>
Semestr studiów			<i>block</i>
Number of assigned points ECTS			<i>1</i>
Forms of instruction			<i>classes</i> <i>V –th year – 15h</i>
Responsible person			<i>Prof. dr hab. n. med. Marek Drożdżik</i>
Teaching staff			1. prof. dr hab. Marek Drożdżik - drozdzik@pum.edu.pl 2. dr. Ewa Dąbrowska-Żamojcin dabewa@vp.pl
Web.page			<a href="http://www.farmakol.pum.edu.pl">www.farmakol.pum.edu.pl</a>
Instruction language			English

## Detailed information

Module tasks		1. Familiarize students with issues of general pharmacology (mechanisms and effects of drug action, pharmacokinetic characteristics of drugs with focus on distribution, biotransformation) and drug interactions. 2. Discussion and practice of prescriptions. 3. Clinical cases discussion in the form of pharmacological workshops to consolidate and deepen the drug actions and clinical application; management of different sources of drug information	
Prerequisite knowledge	Knowledge	<i>Principles of biochemistry, physiology, histology, genetics</i>	
	Skills	<i>Basic mathematical calculations, the ability to use the acquired knowledge</i>	
Description of teaching effects for the module (subject)			
Numer of teaching effects	Student, who completed the module (subject) knows/can/is able:	SYMBOL (reference) EKK	Assessing student achievement of learning outcomes (form of verification)
KL S2J W01	knows the main mechanisms of action of drugs	K_C.W35	T
KL S2J W02	determines the impact of disease stated on metabolism and elimination of drugs	K_C.W36	T
KL S2J W03	knows the basic principles of pharmacotherapy	K_C.W37	T
KL S2J W04	knows the most important side effects of drugs, including drug-drug interactions	K_C.W38	T
KL S2J W05	understands aspects of drug resistance, including multidrug resistance	K_C.W39	T
KL S2J W06	knows the indications for genetic testing to individualize pharmacotherapy	K_C.W40	T
KL S2J W07	Describes and understands the basic principles of pharmacotherapy for the diseases of the elderly	K_E.W10	T
KL S2J W08	Characterizes the principles of pain management, including cancer pain and chronic pain	K_E.W29	T
KL S2J W09	Listed indications for the implementation of monitored therapy	K_E.W40	T
KL S2J U01	performs simple pharmacokinetic calculations	K_C.U13	S
KL S2J U02	drug decision making, dose adjustments to correct pathological states and organ pathology	K_C.U14	S
KL S2J U03	uses pharmaceutical sources and databases on medicinal products	K_C.U17	S
KL S2J U04	analyzes the possible side effects of each drug and the interaction between them	K_E.U17	S
KL S2J U05	Proposes individualization of existing therapeutic guidelines and other treatments for ineffectiveness or contraindications to standard therapy	K_E.U18	S

Teaching effects matrix for the module (subject) referred to type of didactic forms									
Numer of teaching effects	Student, who completed the module (subject) knows/can/is able:	Type of didactic activities							
		Lectures	Seminars	Laboratory classes	Project classes	Clinical Classes	Classes	Practicals	others
KL S2J W01	Describes the main mechanisms of action of drugs and their changes in the system depending on age						x		
KL S2J W02	Determines the impact of disease processes on metabolism and elimination of drugs						x		
KL S2J W03	Characterizes the basic principles of pharmacotherapy						x		
KL S2J W04	can pinpoint the most important side effects of the drug, including the effects of their interaction						x		
KL S2J W05	Understands the problem of drug resistance, including multidrug resistance						x		
KL S2J W06	List the indications for genetic testing for the individualization of pharmacotherapy						x		
KL S2J W07	Describes and understands the basic principles of pharmacotherapy for the diseases of the elderly						x		
KL S2J W08	Characterizes the principles of pain management, including cancer pain and chronic pain						x		
KL S2J W09	Listed indications for the implementation of monitored therapy						x		
KL S2J U01	Performs simple pharmacokinetic calculations						x		
KL S2J U02	Selects drugs in appropriate doses to correct pathological events in the body and in particular organs						x		
KL S2J U03	Uses pharmaceutical informants and databases on medicinal products						x		
KL S2J U04	It analyzes the possible side effects of each drug and the interaction between them						x		
KL S2J U05	Proposes individualization of existing therapeutic guidelines and other treatments for ineffectiveness or contraindications to standard therapy						x		

Module (subject) teaching content		
Symbol of teaching content	Description of teaching content	Reference to teaching effects for the module
TK01	Definition of clinical pharmacology. Principles of clinical trials. Therapy monitored.	C.W35. C.W36, C.W37, E.W40, C.U
TK02	Pharmacodynamic and pharmacokinetic interactions	C.W38, C.W39, C.W40
TK04		KL2JPW01, KL2JPW02, KL2JPW03, KL2JPW04, KL2JPW05, KL2JPW06, KL2JPW07, KL2JPU01,02,04,05
TK05	Standards for the treatment of cardiac failure	KL2JPW01, KL2JPW02, KL2JPW03, KL2JPW04, KL2JPW05, KL2JPW06,

		KL2JPW07, KL2JPW9, KL2JPU01,02, 03,04,05		
TK06	Pharmacotherapy standards for hypertension	KL2JPW01, KL2JPW02, KL2JPW03, KL2JPW04, KL2JPW05, KL2JPW06, KL2JPW07, KL2JPU01,02,04,05		
TK07	Standards of pain pharmacotherapy	KL2JPW01, KL2JPW02, KL2JPW03, KL2JPW04, KL2JPW05, KL2JPW06, KL2JPW07, KL2JPU01,02,04,05		
TK08	Rules of use during pregnancy And lactation			
TK09	Principles of correct prescribing			
<b>Books</b>				
Introduction to Clinical Pharmacology, 8e, 2015 by Marilyn Winterton Edmunds PhD ANP/GNP				
Basic and Clinical Pharmacology 13e, 2014 by Bertram Katzung and Anthony Trevor				
<b>Student workload (summary of ECTS pts)</b>				
Form of student workload (participation in classes/seminars, activity, report writing, etc.)		Student workload [h]		
		Teacher	Student	Mean
Direct teaching		0	130	130
Classes/seminar preparations		75	38	57
Self-reading of the specified literature		100	260	180
Laboratory reports writing/project preparation		0	0	0
Exam preparation		50	150	100
Others				
Total student workload		225	578	467
<b>ECTS pts for the module</b>		<b>10</b>		
<b>Comments</b>				

Evaluation methods, eg..:

E – exam- problem management

S – verification of practical skills

R – report

D – result discussion

P – presentation

Others -