



## Pomorski Uniwersytet Medyczny w Szczecinie

### MODULE SYLLABUS (SUBJECT) General information

<b>MODULE NAME: Pharmacology</b>	
Module type	Obligatory
PMU Faculty	Faculty of Medicine and Dentistry
Field of study	Medicine/Dentistry
Level of study	long-cycle (S2J)
Mode of study	full-time studies
Year of study	3 year / semester V i VI
ECTS	4
Forms of instruction (hours)	lectures- 14h , e-learnig – 6 h, seminars – 15 h, practicals – 45 h
Knowledge verification/grading system	<input type="checkbox"/> graded assessment: <ul style="list-style-type: none"> <li><input type="checkbox"/> written, descriptive</li> <li><input type="checkbox"/> test</li> <li><input type="checkbox"/> practical</li> <li><input type="checkbox"/> oral</li> </ul> <input type="checkbox"/> non-graded assessment <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> final examination <ul style="list-style-type: none"> <li><input type="checkbox"/> written, descriptive</li> <li><input checked="" type="checkbox"/> test</li> <li><input type="checkbox"/> practical</li> <li><input type="checkbox"/> oral</li> </ul> </li> </ul>
Head of the Department	Prof. dr hab. n. med. Marek Drożdżik
Tutor responsible for the module	Prof. dr hab. Marek Drożdżik drozdzi@pum.edu.pl 91-4661589
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Instruction language	English

### Detailed information

Module objectives		<p>1. Detailed information about particular drug classes, drug names, actions and principles for clinical application, and drug combination in a given therapeutic indication.</p> <p>2. Discussion of drug side effects, including drug-drug interaction consequences.</p> <p>3. Drug prescription standards and practice of prescription.</p>
Prerequisite /essential requirements	Knowledge	Principles of biochemistry, physiology, histology, genetics
	Skills	Basic mathematical calculations, the ability to use the acquired knowledge
	Social competences	Teamwork skills

Description of the learning outcomes for the subject /module			
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)
W01	is able to characterize individual groups of therapeutic agents, mode of action, pharmacokinetics and biotransformation	C.W18	W, K, ET
W02	is able to define clinical indications and contraindications, dosing, adverse drug reactions and toxicity as well as drug-drug interactions	C.W19	W, K, ET, SP
W03	knows and understands pharmacotherapy of infections	C.W20	W, K, ET, SP
W04	knows and understands pharmacotherapy of pain and drug applications in life emergency states	C.W21	W, K, ET, SP
W05	is able correctly prescribe all forms of drug formulas	C.W22	S, K
W06	understands the relationship between morphological abnormalities and the function of the dysfunctional organs and systems, clinical symptoms and the possibilities of diagnosis and treatment	E.W1	W, K, ET, SP
W07	knows the neurological effects of long-term medication	E.W6	W, K, ET
W08	knows the causes and mechanisms of cardiac and respiratory arrest as well as the principles of resuscitation and post-resuscitation	E.W17	W, K, ET, SP
U01	prescribes drugs correctly for different clinical indications	C.08	S, K
U02	prescribes drugs with regard to their interactions and side effects	F.U10	S, K

K01	is ready to establish and maintain deep and respectful contact with the patient as well as to show understanding for ideological and cultural differences	K.5	K, O, PS
K02	is ready to be guided by the patient wellbeing	K.7	K, EP
K03	is ready to respect physician-patient privilege and patient's rights	K.10	O, SP, PS

**Table presenting LEARNING OUTCOMES in relation to the form of classes**

Numer of teaching effects	Teaching effects	Type of didactic activity						
		Lecture	Seminar	Laboratory classes	Clinical classes	Simulation	E-learning	Others
W01	C.W18	X	X	X			X	
W02	C.W19	X	X	X			X	
W03	C.W20	X		X				
W04	C.W21	X	X	X			X	
W05	C.W22		X	X				
W06	E.W1	X	X	X			X	
W07	E.W6	X		X			X	
W08	E.W17	X	X	X				
U01	C.U08		X	X				
U02	F.U10		X	X				
K01	K.5		X	X				
K02	K.7		X	X				
K03	K.10		X	X				

**Table presenting TEACHING PROGRAMME**

Symbol of teaching content	Description of teaching content	Hours	Reference to teaching effects for the module
<b>Winter semester</b>			
<b>Seminars</b>			
TK01	Principles of pharmacology	2	W01, W02
TK02	Drugs of autonomic parasympathetic system	1	W01, W02, W04, W08, W06, K01, K02
TK03	Drugs of autonomic sympathetic system	2	W01, W02, W04, W06, W08, K01, K02
TK04	Calcium channel antagonists	1	W01, W02, W06, K01, K02
TK05	Drugs affecting RAA system	1	W01, W02, W06, K01, K02, K03
TK06	Diuretics	2	W01, W02, W04, W06, W08, K01, K02, K03
TK07	Drugs for coronary heart disease and heart failure	2	W01, W02, W04,

			W08, W06, K01, K02, K03
TK08	Hypolipidemic drugs	1	W01, W02, W06, K01, K02
TK09	Drugs for diabetes mellitus	2	W01, W02, W06, K01, K02, K03
TK10	Principles of drug prescriptions	1	W05, U01, U02, K01, K03
<b>Practicals</b>			
TK01	Hypotensive agents	1	W01, W02, W06, W08, K01, K02, K03
TK02	Antiplatelet drugs	1	W01, W02, W06, K01, K02, K03
TK03	Anticoagulants	2	W01, W02, W06, K01, K02, K03
TK04	Drugs for obesity	1	W01, W02, W06, K01, K02
TK05	Glucocorticoids	2	W01, W02, W06, K01, K02, K03
TK06	Sex hormones	2	W01, W02, W06, W08, K01, K02
TK07	Drugs for thyroid gland pathology and osteoporosis	2	W01, W02, W06, K01, K02, K03
TK08	Hypophysis/pituitary gland hormones and related drugs	1	W01, W02, W06, K01, K02
TK09	Final revision	1	W01, W02, K01, K02, K03
TK10	Practice of drug prescriptions	2	W05, U01, U02, K01, K02, K03
<b>E-learning (wykłady)</b>			
TK01	Principles of pharmacology	1	W01, W02
TK02	Autonomic symphatetic system drugs	1	W01, W02, W04
TK03	Autacoids	1	W01, W02
TK04	Antiarrhythmic drugs	1	W01, W02, W04, W06
TK05	Hypotensive agents	1	W01, W02, W04, W06
TK06	Drugs for coronary heart disease	1	W01, W02, W04, W06
TK07	Drugs affecting hemostasis	1	W01, W02, W06
TK08	Drugs in the treatment of diabetes mellitus	1	W01, W02, W06
TK09	Drugs for thyroid gland pathology and osteoporosis	1	W01, W02, W06
TK10	Glucocorticoids	1	W01, W02, W06
<b>Summer semester</b>			
<b>Lectures</b>			
TK01	Antimicrobial agents - introduction	1	W01, W02, W03
TK02	Antiviral drugs	1	W01, W02, W03
TK03	Local anesthetics	1	W01, W02, W07
TK04	General anesthesia drugs	1	W01, W02, W08
TK05	Immunosuppressants and anticancer drugs	1	W01, W02, W06, W07

TK06	Analgesic drugs	1	W01, W02, W04, W06, W07
TK07	Antiepileptic drugs	1	W01, W02, W06, W07
<b>Practicals</b>			
TK01	Antibacterial drugs	4	W01, W02, W03, K01, K02, W07
TK03	Antifungal, antiparasitic drugs. Antiseptic agents	2	W01, W02, W03, K01, K02
TK04	Summary of antimicrobial agents	2	W01, W02, W03, W04, W06, K01, K02
TK05	Nonopioid analgesics	2	W01, W02, W04, W06, W07, K01, K02
TK06	Opioid analgesics	2	W01, W02, W04, W06, W07, K01, K02
TK07	Local anesthetics	2	W01, W02, W04, W07, K01, K02
TK08	Hypnotic, anxiolytic and sedative drugs	2	W01, W02, W04, W06, W07, W08, K01, K02
TK09	Summary of drugs affecting central nervous system functions	2	W01, W02, W06, W07, K01, K02
TK10	Drugs for peptic ulcer disease	2	W01, W02, W06, K01, K02
TK11	Drugs for gastrointestinal tract diseases	2	W01, W02, W06, K01, K02
TK12	Drugs for respiratory tract diseases	2	W01, W02, W04, W06, W08, K01, K02
TK13	Summary – drugs in therapy of organ pathologies	2	W01, W02, W04, W06, K01, K02
TK14	Drug prescription – practicals, part 1	2	W05, U01, U02, K01, K02
TK15	Drug prescription – practicals, part 2	2	W05, U01, U02, K01, K02
<b>E-learning</b>			
TK01	Psychotropic drugs - introduction	1	W01, W02, W04, W07
TK02	Antipsychotic and antidepressant drugs	1	W01, W02, W07
TK03	Biological drugs	1	W01, W02

<b>Booklist</b>	
Obligatory	
Pharmacology, 7th Edition, Lippincott Illustrated Reviews Series by Richard A. Harvey, Michelle A Clark, Richard Finkel, Jose A. Rey, Karen Whalen	
Pharmacology and Therapeutics for Dentistry 7th edition By Frank J. Dowd & Bart Johnson & Angelo Mariotti, Elsevier	
Supplementary	

Pharmacology, 5th Edition, Elsevier  
by George M. Brenner, Craig Stevens

<b>Student's workload</b>	
Form of student workload (participation in classes/seminars, activity, report writing, etc.)	Student workload [h]
	Tutor
Direct teaching	74
Classes/seminar preparation	10
Self-reading of the specified literature	10
Laboratory reports writing/project preparation	
Section testing preparation	25
Exam preparation	35
Others	6
Summary of students workload	160
<b>ECTS credits for the subject (in total)</b>	4
<b>Comments</b>	