



Pomeranian Medical University in Szczecin

SYLLABUS of the MODULE (SUBJECT)

valid from the academic year 2018/2019

General Information

Module title	Pharmacology
Module type	Obligatory
Faculty	Faculty of Medicine and Dentistry
Field of study	Medicine and Dentistry
Major	Not applicable
Level of study	long-cycle (S2J)
Mode of study	Intramural
Year of studies, semester	Year III, semester V and VI
ECTS credits (incl. semester breakdown)	5 (2+3)
Type/s of training	V semester: lectures (10h) /seminars (15h)/ practical (15h) VI semester: lectures (10h) / practical (30h)
Form of assessment	graded assessment: - test final examination: - test - practical
Head of the Department/ Clinic, Unit	Prof. dr hab. Marek Drożdżik
Tutor responsible for the module	Prof. dr hab. Marek Drożdżik
Department's/ Clinic's/ Unit's website	www.farmakol.pum.edu.pl
Language	English

Detailed information

Module objectives		<ol style="list-style-type: none"> 1. Familiarize students with issues of general pharmacology issues. 2. Provide detailed information about particular drug classes, drug names, actions and principles for clinical application, and drug combination in a given therapeutic indication. 3. Discuss aspects of drug side effects and drug-drug interactions. 4. Discussion and practice of prescriptions.
Prerequisite /essential requirements	Knowledge	Principles of biochemistry, physiology, histology, genetics
	Skills	Basic mathematical calculations, the ability to use the acquired knowledge
	Competences	Teamwork skills

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	Is able to explain the mechanisms of action of drugs as well as pharmacokinetics and biotransformation of individual groups of drugs	K_C.W18	K, ET
W02	Lists the indications and contraindications to administration of drugs, dosage range, side effects and drug-drug interactions	K_C.W19	K, ET
W03	Discusses and explains the principles of therapy for viral, bacterial, fungal and parasitic infections	K_C.W20	K, ET
W04	Discusses principles of pain prevention and treatment and anxiety control as well as pharmacology of drugs used in life-threatening situations	K_C.W21	K, ET
W05	Knows the drug prescription rules and regulations	K_C.W22	EP
U01	Prescribed drugs and dosages according to indications	K_C.U08	EP
K01	Interacts and cooperates with classmates and takes care of the workplace safety	K_K03	O

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_C.W18	X	X	X					
2.	K_C.W19	X	X	X					
3.	K_C.W20	X	X	X					
4.	K_C.W21	X	X	X					
5.	K_C.W22		X	X					
6.	K_C.U08			X					
7.	K_K03			X					

Module contents no.	Description of teaching programme	No. of hours	References to learning outcomes
	Lectures (semester V)	10 hours	
TK01	Principles of general pharmacology	1	W01
TK02	Drugs acting on peripheral nervous system.	1	W01, W02
TK03	Autacoids	1	W01, W02
TK04	Drugs in hypertension	1	W01, W02
TK05	Coronary heart disease and antiarrhythmic drugs	1	W01, W02, W04
TK06	Summary	1	W01, W02, W04, U01, K01
TK07	Drugs used in anemia treatment	1	W01, W02, W04
TK08	Hypolipemic drugs	1	W01, W02
TK09	Drugs in thyroid, parathyroid gland diseases, drugs for osteoporosis	1	W01, W02
TK10	Summary	1	W01, W02, W04, U01, K01
	Seminars (semester V)	15 hours	
TK01	Principles of pharmacodynamics	1	W01
TK02	Drugs acting on the parasympathetic nervous system	1	W01, W02, W04
TK03	Drugs acting on the sympathetic nervous system	1	W01, W02, W04
TK04	Vasodilating agents (ACEI, ARB, CCB, nitrates)	1	W01, W02, W04
TK05	Diuretics	1	W01, W02, W04
TK06	Rules and regulations of drug prescription	1	W05
TK07	Hemostatic agents	1	W01, W02, W04
TK08	Antidiabetic agents	1	W01, W02
TK09	Glucocorticoids	1	W01, W02, W04
TK10	Sex hormones	1	W01, W02
TK11	Principles of infection treatment	1	W03
TK12	Antibacterial agents of natural origin	1	W03
TK13	Antibacterial agents	1	W03
TK14	Antiviral agents	1	W03
TK15	Summary and revision	1	W01, W02, W03, W04, W05
	Practicals (semester V)	15 hours	
TK01	Principles of pharmacokinetics	1	W01
TK02	Application rules of drugs acting on the parasympathetic nervous system	1	W01, W02, W04, U01, K01
TK03	Application rules of drugs acting on the sympathetic nervous system	1	W01, W02, W04, W05, U01, K01
TK04	Application rules of vasodilating agents	1	W01, W02, W04, W05, U01, K01
TK05	Drugs used in heart failure	1	W01, W02, W04, W05, U01, K01
TK06	Rules and regulations of ready-made medicines prescriptions	1	W05, C.U08, K01

TK07	Drugs for thromboembolic disease, prophylaxis and treatment	1	W01, W02, W04, W05, U01
TK08	Oral antidiabetic agents	1	W01, W02, U01
TK09	Rules of glucocorticoid clinical use	1	W01, W02, U01
TK10	Sex hormones application in clinical settings	1	W01, W02, U01
TK11	Vaccines, probiotics, disinfectants	1	W03, K_C.W.22, U01
TK12	Bactericidal antibiotics	1	W03, K_C.W.22, U01
TK13	Rules of antimicrobial management	1	W03, K_C.W.22, U01
TK14	Antifungal and anthelmintic drugs	1	W03, K_C.W.22, U01
TK15	Summary and revision	1	W01, W02, W03, W04, W05, U01
	Lectures (semester VI)	10 hours	
TK01	Psychotropic drugs – introduction. Procognitive drugs	1	W02, W04, W05
TK02	Antiepileptic drugs	1	W02, W04, W05
TK03	Analgesic drugs – introduction	1	W04
TK04	Summary and revision	1	W01, W02, W04, W05
TK05	General anesthesia drugs. Muscle relaxants.	1	W04
TK06	Immunosuppressive drugs. Biologic drugs.	1	W01, W02
TK07	Anticancer drugs.	1	W01, W02
TK08	Summary and revision	1	W01, W02, W05
TK09	Drugs for peptic ulcer disease	1	W01, W02
TK10	Drug side effects and interactions	1	W02
	Practicals (semester VI)	30 hours	
TK01	Anxiolytic drugs. Hypnotic drugs.	2	W02, W04, W05, U01
TK02	Antidepressants	2	W02, W04, W05, U01
TK03	Antipsychotic drugs	2	W02, W04, W05, U01
TK04	Local anesthetics	2	W02, W04, W05, U01
TK05	Non-opioid analgesics	2	W02, W04, W05, U01
TK06	Principles of pain management	2	W02, W04, W05, U01
TK07	Opioids	2	W02, W04, W05, U01
TK08	Drugs used in respiratory tract diseases	2	W01, W02, W05, U01
TK09	Drugs for gastrointestinal tract diseases part 1	2	W01, W02, W05, U01
TK10	Drugs for gastrointestinal tract diseases part 2	2	W01, W02, W05, U01
TK11	Principles of magistral preparations prescription	2	W05, U01
TK12	Drug prescriptions revision and summary	2	W05, U01
TK13	Drug prescriptions revision and summary	2	W05, U01
TK14	Drug prescription exam	2	W05, U01
TK15	Revision and summary for the final exam	2	W01, W02, W03, W04, W05, U01

Booklist			
Obligatory literature:			
1. Pharmacology (Lippincott Illustrated Reviews Series) 5th Edition, 2014, ISBN-13: 978-1451113143 Richard A. Harvey, Michelle A Clark, Richard Finkel, Jose A. Rey, Karen Whalen			
2. Pharmacology and Therapeutics for Dentistry, 7th Edition, 2017, ISBN: 9780323393072 Frank Dowd Bart Johnson Angelo Mariotti			
Supplementary literature:			
1. Basic and Clinical Pharmacology 13e (Int'l Ed), 13 Edition, 2015, ISBN: 9781259252907 Bertram G. Katzung, Susan B. Masters, Anthony J. Trevor			
2. Pharmacology for Dentistry, 2nd Edition, 2013, ISBN: 9788131234556 Tara Shanbhag Smita Shenoy Veena Nayak			
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	80		
Time spent on preparation to seminars/ practical classess			
Time spent on reading recommended literature			
Time spent on writing report/making project			
Time spent on preparing to colloquium/ entry test			
Time spent on preparing to exam			
Other			
Student's workload in total			
ECTS credits for the subject (in total)	5		
Remarks			

* 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...