



# Pomorski Uniwersytet Medyczny w Szczecinie

Pomeranian Medical University in Szczecin[PUM]

## (COURSE) MODULE SYLLABUS

### General information

Name of Course: <b>Toxicology</b>	
Type of course	<b>Mandatory</b>
PUM Faculty	<i>Faculty of Medicine and Dentistry</i>
Field of study	<i>Medicine</i>
Specialization	<i>not applicable</i>
Level of study	<i>Long-term studies</i>
Form of study	<i>Full-time, part-time</i>
Year of study/semester of study	4th year, 7th and 8th semester
Number of ECTS credits allocated	1
Forms of teaching (number of hours)	seminars - 10 hours practical exercises - 20 hours $\Sigma = 30h$
Methods of verification and assessment of learning outcomes	- <i>graded credit:</i>  <input type="checkbox"/> <i>Descriptive credit</i> <input type="checkbox"/> <i>test</i> <input type="checkbox"/> <i>practical credit</i> <input type="checkbox"/> <i>oral credit</i>  <i>X credit without grade</i>  - <i>final exam:</i> <input type="checkbox"/> <i>descriptive credit</i> <i>X test</i> <input type="checkbox"/> <i>practical credit</i> <input type="checkbox"/> <i>oral credit</i>
Head of Unit	<i>Tomasz Janus PhD</i>
Teaching assistant professor or person responsible for the course	<i>Barbara Potocka-Banas Ph.D</i> <i>barbara.potocka.banas@pum.edu.pl</i>
Name and contact details of unit	<i>Department of Clinical and Forensic Toxicology</i> <i>Tel. 0914661582</i>
Unit's website	<a href="http://zms.pum.edu.pl">http://zms.pum.edu.pl</a>
Language of instruction	<i>English</i>

**Detailed information**

Course objectives		The learning objective of the module is to acquire the following skills : - getting to know the principles of organization and tasks performed by toxicological centres - getting acquainted with general principles of management and treatment of poisoning cases with selected xenobiotics - practical mastering of the gastric lavage procedure - management of the addicted patient - carrying out simple toxicological tests - interpretation of toxicological results in relation to the clinical state of the patient	
Preliminary requirements in terms of	Knowledge	Familiarity of : - toxicology of drugs and psychoactive substances - analytical methods used in toxicology	
	Skills	Providing aid to the poisoned patient and selection of management procedures	
	Social competences	The habit of self-education, teamwork	
<b>Learning outcomes</b>			
Number of learning outcome	A student who has completed of the COURSE knows/can:	SYMBOL (reference to) learning outcomes for the field of study	Method of verifying the learning outcomes*
W01	consequences of exposure of the human body to various chemical and biological agents and principles of prevention	C.W15	ET
W02	the most important adverse drug reactions, including those resulting from drug interactions	C.W.39	
W03	knows the basic concepts of general toxicology	C.W.43	
W04	Knows groups of drugs which, if abused, can lead to poisoning	C.W.44	
W05	knows the symptoms of the most common acute poisonings, including alcohol, drugs, psychoactive substances, heavy metals and selected groups of drugs	C.W.45	
W06	knows the basic principles of diagnostic procedures in poisoning	C.W.46	
W07	knows the basic principles of diagnostic procedures in poisoning	C.W.48	
W08	assesses toxicological risks in specific age groups and in states of hepatic and renal insufficiency, and to prevent drug poisoning	C.U18	
W09	interpret the results of toxicological tests	C.U19	
W10	perceives and recognizes his/her own limitations and carries out a self-assessment of his/her deficits and learning needs	K.5	

W11	promote health-promoting behaviour	K.6
W12	use objective sources of information	K.7

**Table of learning outcomes in relation to the form of classes**

Number of learning outcome	Learning outcomes	Form of the classes						
		Lecture	Seminar	Practical exercises	Clinical exercises	Simulations	E-learning	Other forms
W01	C.W15		X					
W02	C.W.39		X					
W03	C.W.43		X					
W04	C.W.44		X					
W05	C.W.45		X					
W06	C.W.46		X					
W07	C.W.48		X					
W08	C.U18			X				
W09	C.U19			X				
W10	K.5			X				
W11	K.6			X				
W12	K.7			X				

**TABLE OF CURRICULUM**

Curriculum number	Curriculum	Number of hours	Reference to the learning outcomes for the CLASSES
SEMINARS:	winter and summer semesters	<b>10h</b>	
TK01	General management, antidotes and various aspects of toxicology	1,0	C.W15 C.W.39 C.W.43 C.W.44 C.W.45 C.W.46 C.W.48
TK02	Toxicology of selected drugs	2,0	
TK03	Poisoning by fungi and higher plants	1,0	
TK04	Psychoactive agents	2,0	
TK05	Toxicology of selected drugs	4,0	
Practical Exercises:	winter and summer semester	<b>20h</b>	
TK01	Analytical methods and management used in toxicology	4	C.U18 C.U19 K.5 K.6 K.7
TK02	Diagnosis of mushroom poisoning	4	
TK03	Gastric lavage	4	
TK04	Toxicological tests, interpretations of results	4	
TK05	Cases of drug intoxications, interpretation of toxicological results	4	

**Recommended Literature:**

<b>Required literature:</b>	
1. Clarke's analysis of drug and poisons in pharmaceutical, body fluids and postmortem material. 2011, fourth edition. Anthony C Moffat, M. David Osselton, Brian Widdop, Pharmaceutical Press.	
2. Goldfrank's Toxicologic Emergencies, Tenth Edition. Lewis R. Goldfrank, Robert S. Hoffman, Mary Ann Howland, Neal A. Lewin, Lewis S. Nelson. McGraw Hill / Medical.	
<b>Supplementary literature:</b>	
1. Ellenhorn's Medical Toxicology: Diagnosis and Treatment of Human Poisoning Subsequent Edition Matthew J. Ellenhorn, Williams & Wilkins	
<b>Student workload</b>	
Form of student workload (participation in classes, activity, report preparation, etc.)	Student workload [h].
	In the teacher's assessment (opinion)
Contact hours with the teacher/instructor	30
Preparation for practical exercises/seminar	5
Reading the recommended literature	5
Writing a lab/exercise report/preparing a project/paper, etc.	4
Preparation for a test/short test	-
Preparing for the exam	10
Other .....	-
Total student workload	54
ECTS credits for the module/course	1 ECTS
<b>Notes</b>	

\*Example ways of verification of educational outcomes:

EP - written exam

EU - oral test

ET - test exam

EPR - practical test

K - test

R - paper

S - testing of practical skills

RZČ - report from practical exercises with discussion of results

O - evaluation of student's activity and attitude

SL - Laboratory report

SP - case study

PS - assessment of ability to work independently

W - short test before the beginning of classes

PM - multimedia presentation

and other