



Pomeranian Medical University in Szczecin[PUM]
COURSE SYLLABUS
General information

Name of Course: Anaesthesiology and Intensive Care	
Type of course	Compulsory
PUM Faculty	Faculty of Medicine and Dentistry
Field of study	Medicine
Specialization	-
Level of study	Long-term studies
Form of study	full-time/ part-time
Year of study /semester	Year 5 (block classes)
Number of ECTS credits allocated	1
Forms of teaching (number of hours)	Practical exercises 18 hours
Methods of verification and assessment of learning outcomes *	<input type="checkbox"/> Graded credit: <ul style="list-style-type: none"> <input type="checkbox"/> descriptive credit <input type="checkbox"/> test credit <input type="checkbox"/> practical credit <input type="checkbox"/> oral credit Credit without grade <ul style="list-style-type: none"> <input type="checkbox"/> Final exam: <ul style="list-style-type: none"> <input type="checkbox"/> descriptive assessment <input type="checkbox"/> test credit <input type="checkbox"/> practical assessment <input type="checkbox"/> oral assessment
Head of Unit	Prof. dr hab. n. med. Maciej Żukowski, MD, prof. Ph.D
Teaching assistant professor or person responsible for the course	dr n. med. Małgorzata Zegan-Barańska, MD, Ph.D
Name and contact details of unit	Department of Anaesthesiology, Intensive Care and Acute Poisoning SPSK no. 2 Ul. Powstańców Wielkopolskich 71 70-111 Szczecin Tel. 914661144
Unit's website	https://www.pum.edu.pl/wydzialy/wydzial-medycyny-i-stomatologii/klinika-anestezjologii,-intensywnej-terapii-i-ostrych-zatruc
Language of instruction	Polish/English

*tick as appropriate, changing to .

Detailed information

Course objectives		<ul style="list-style-type: none"> — Getting to know the specifics of anaesthesiologist work in intensive care unit. — Getting to know and deepening knowledge in the field of anaesthesiology and intensive care with elements of acute poisoning — Monitoring of vital signs — Qualifying patients for treatment in the intensive care unit. — Application of advanced treatment techniques in the intensive care unit — Recognition of life-threatening causes and management and care of the critically ill patient
Preliminary requirements in terms of	Knowledge	<ul style="list-style-type: none"> — Basic anatomy. — Pathophysiology of diseases of the cardiovascular system, respiratory system, nervous system, digestive system, excretory system. — Principles of qualification and assessment of patients in life-threatening condition. — Knowledge of clinical pharmacology. — Knowledge of microbiology and infectious diseases. — Fundamentals of ALS and BLS algorithms. — Principles of radiographic imaging fundamentals. — Laboratory diagnostics — Knowledge of the Code of Medical Ethics
	Skills	clinical examination of a patient, assessment and monitoring of vital signs, assessment of patient's consciousness, recognition of life-threatening conditions, formulation of indications for treatment in the intensive care unit
	Social competences	Ethical standards, medical confidentiality, self-education, teamwork skills, talking to the family of a seriously ill patient, empathy in the relationship with the patient and family. Perceives the rights of the patient.

LEARNING OUTCOMES			
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	A student interprets results of toxicological tests	K_C.U19	S, PS
W02	A student knows the definition and pathophysiology of shock, with particular emphasis on differentiation of shock causes, and multi-organ failure	K_C.W28	
W03	A student knows the etiology of haemodynamic disorders, retrograde and progressive changes	K_C.W29	
W04	A student knows the clinical forms of the most common diseases of individual systems and organs, metabolic diseases and disorders of water-electrolyte and acid-base metabolism	K_C.W33	
W05	A student knows the basic principles of pharmacotherapy	K_C.W37	
W06	A student knows the basic concepts of general	K_C.W42	

	toxicology		
W07	A student knows the groups of drugs whose abuse can lead to poisoning	K_C.W43	
W08	A student knows the symptoms of the most common acute poisonings, including alcohol, drugs, psychoactive substances, heavy metals and selected groups of drugs	K_C.W44	
W09	A student knows the basic principles of diagnostic procedures in poisoning	K_C.W45	
W10	A student knows and understands the capabilities and limitations of emergency laboratory testing	K_E.W39	
W11	A student knows the indications and principles of application of intensive therapy	K_F.W6	
W12	A student knows the current guidelines for cardiopulmonary resuscitation of newborns, children and adults	K_F.W7	
U01	A student interprets results of toxicological tests	K_C.U19	
U02	A student assesses the general condition, state of consciousness and awareness of the patient	K_E.U7	
U03	A student diagnoses life-threatening conditions	K_E.U14	
U04	A student interprets laboratory tests and identifies causes of deviations	K_E.U24	
U05	A student applies nutritional treatment (including enteral and parenteral nutrition)	K_E.U25	
U06	A student performs basic medical procedures and treatments including: measurement of body temperature, measurement of pulse, non-invasive measurement of blood pressure, monitoring of vital signs with a heart monitor, pulse oximetry, oxygen treatment, assisted and assisted ventilation insertion of oropharyngeal tube, intravenous, intramuscular and subcutaneous injections, cannulation of peripheral veins, collection of peripheral venous blood, collection of blood cultures, collection of arterial blood, venous sampling, peripheral venous blood sampling, blood culture, arterial blood sampling, capillary blood sampling, nose, throat and skin swabbing, pleural puncture, urinary bladder catheterisation in men and women, gastric tube sampling, gastric lavage, enema, standard resting electrocardiogram with interpretation, electrical cardioversion and cardiac defibrillation, simple strip tests and blood glucose measurement	K_E.U29	
U07	A student implements basic medical procedures in acute poisonings	K_E.U33	
U08	A student monitors the condition of a patient poisoned by chemicals or drugs	K_E.U34	
U09	A student perform the procedures in accordance with the current advanced resuscitation algorithm	K_F.U11	
K01	A student accepts the need for ethical standards;	K_K01	
K02	A student understands the concept and the need for responsibility for the entrusted good	K_K02	
K03	A student shows the habit of self-education, understands the need of lifelong learning, is able	K_K03	

	to inspire and organize the learning process of others		
K04	A student cooperates with team members; can cooperate in a group taking up different roles	K_K04	
K05	A student can maintain medical confidentiality	K_K14	
K06	A student is able to take care of his own safety, as well as that of his surroundings and colleagues	K_K15	
K07	A student is aware of his/her own limitations and knows when to turn to experts	K_K17	

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	K_C.U19			X				
W02	K_C.W28			X				
W03	K_C.W29			X				
W04	K_C.W33			X				
W05	K_C.W37			X				
W06	K_C.W42			X				
W07	K_C.W43			X				
W08	K_C.W44			X				
W09	K_C.W45			X				
W10	K_E.W39			X				
W11	K_F.W6			X				
W12	K_F.W7			X				
U01	K_C.U19			X				
U02	K_E.U7			X				
U03	K_E.U14			X				
U04	K_E.U24			X				
U05	K_E.U25			X				
U06	K_E.U29			X				
U07	K_E.U33			X				
U08	K_E.U34			X				
U09	K_F.U11			X				
U10	K_K01			X				
K01	K_K02			X				
K02	K_K03			X				
K03	K_K04			X				
K04	K_K14			X				
K05	K_K15			X				

TABLE OF CURRICULUM			
Curriculum number	Curriculum content	Number of hours	Reference to the learning outcomes for the CLASSES
Winter/summer semester			
Practical Exercises			
TK01	Management of an unconscious patient due to acute poisoning with substances of various origin - indications and methods of treatment in the intensive care setting. Monitoring and documentation in the intensive care unit. The use of scales in relation to the patient's condition. The use of imaging diagnostics in the intensive care unit. Interpretation of laboratory tests in relation to serious conditions.	6	K_C.U19 K_C.W29 K_C.W33 K_C.W37 K_C.W42 K_C.W43 K_C.W44 K_C.W45 K_E.W39 K_F.W6 K_F.W7 K_E.U14 K_E.U24 K_E.U29 K_E.U33 K_E.U34 K_F.U11 K_K01 K_K02 K_K03 K_K04 K_K14 K_K15 K_K17
TK02	Criteria for patient admission to the intensive care unit. The most common causes of systemic failure requiring treatment in the intensive care unit. Etiology of the most common diseases causing admission to the ICU. Acute renal failure - indications and methods of treatment in the intensive care setting. Treatment applications for individual organ failure.	6	K_C.W28 K_C.W29 K_C.W33 K_C.W37 K_E.W39 K_F.W6 K_F.W7 K_E.U14 K_E.U24 K_E.U25 K_E.U29 K_F.U11 K_K01 K_K02 K_K03 K_K04 K_K14 K_K15 K_K17
TK03	Circulatory failure - indications and methods of treatment in intensive care. The use of invasive procedures. Diagnosis of sepsis. Sepsis-definition and diagnosis. Problems related to treatment in the intensive care unit. Ethical problems in ICU.	6	K_C.W28 K_C.W29 K_C.W33 K_C.W37 K_E.W39 K_F.W6 K_F.W7 K_E.U14 K_E.U24 K_E.U25 K_E.U29

			K_F.U11 K_K01 K_K02 K_K03 K_K04 K_K14 K_K15 K_K17
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Recommended Literature:
Required literature
Intensywna Terapia Dorosłych t. I i II Zbigniew Rybicki Wydaw. Makmed wyd. III 2015..
2 P.L.Marino "Intensive Care" Elseviere Urban&Partner, 4th ed. 2016
Complementary literature
1. Anestezjologia. Seria Crash Course Autor: Mark Weinert, red. wyd. pol. Andrzej Kubler Wydawca: Elsevier Urban & Partner
2. Podstawy anestezjologii i intensywnej terapii, pod redakcją prof. Z. Kruszyńskiego, skrypt AM w Poznaniu, rok wydania 2010 r.

Student workload	
Form of student workload (class participation, activity, report preparation, etc.)	Student workload [h].
	In the teacher's assessment (opinion)
Contact hours with the teacher/instructor	18
Preparation for practical exercise/seminar	5
Reading the recommended literature	5
Writing a lab/exercise report/preparing a project/reference, etc.	
Preparation for a test/short test	
Preparing for the exam	
Other	
Total student workload	
ECTS credits	1
Notes	

*Example Methodss 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

RZC - report from practical exercises with discussion of results

O - assessment 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