

Subject name Anesthesiology and Intensive Therapy		ECTS Code																	
Name of unit teaching the subject THE ZBIGNIEW RELIGA FACULTY OF MEDICAL SCIENCES IN ZABRZE, THE UNIVERSITY OF TECHNOLOGY IN KATOWICE																			
Studies																			
Field of study	degree	mode	major	specialization															
medical	Uniform Master's	stationary																	
Surname of instructor (instructors)																			
Type of class, method of implementation and specified number of hours		Amount of ECTS points																	
A.Type of class <ul style="list-style-type: none"> • lecture, • exercise classes, • clinical classes, • design classes • laboratories, • lectureship, • diploma seminar, • professional internship.* * mark where applicable		Description of awarding ECTS points: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="padding: 5px; text-align: center;">Activity</th> <th style="padding: 5px; text-align: center;">Student workload</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Participation in lectures</td> <td style="padding: 5px; text-align: center;">15 hours</td> </tr> <tr> <td style="padding: 5px;">Participation in practical classes</td> <td style="padding: 5px; text-align: center;">45 hours</td> </tr> <tr> <td style="padding: 5px;">Preparation for practical classes and colloquiums</td> <td style="padding: 5px; text-align: center;">10 hours</td> </tr> <tr> <td style="padding: 5px;">Examination preparation</td> <td style="padding: 5px; text-align: center;">15 hours</td> </tr> <tr> <td style="padding: 5px;">Consultations</td> <td style="padding: 5px; text-align: center;">5 hours</td> </tr> <tr> <td style="padding: 5px;">Total number of hours</td> <td style="padding: 5px; text-align: center;">90 hours / 30</td> </tr> <tr> <td style="padding: 5px;">Amount of ECTS points per module</td> <td style="padding: 5px; text-align: center;">3 ETCS</td> </tr> </tbody> </table>		Activity	Student workload	Participation in lectures	15 hours	Participation in practical classes	45 hours	Preparation for practical classes and colloquiums	10 hours	Examination preparation	15 hours	Consultations	5 hours	Total number of hours	90 hours / 30	Amount of ECTS points per module	3 ETCS
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B.Amount of hours in accordance with the approved curriculum <ul style="list-style-type: none"> • lecture = 15h • clinical classes = 45h 																			
Didactic cycle Fourth year eighth semester																			
Subject status <ul style="list-style-type: none"> • mandatory / facultative 		Language of instruction Polish																	
Didactic methods Multimedia presentations Case analysis Practical classes using phantoms Learning to use the appropriate equipment Classes in the operating room Simulation classes		Forms and methods of passing and general grading criteria or examination requirements <hr style="border-top: 1px dashed black;"/> A. Method of passing <ul style="list-style-type: none"> • written and oral examination/test • Oral examination – practical – with the use of a simulator • Attendance and participation in classes <hr style="border-top: 1px dashed black;"/> B. Forms of passing: <ul style="list-style-type: none"> • written examination: test / with open questions (exercises)/longer written statement • oral examination • oral test/colloquium • obtaining credit for practical classes on simulators obtaining a credit for each exercise module in written form • completion of a semester assignment: preparation of a design or presentation/conducting research and presenting its results(written/oral)/completion of a specified practical work • <u>agreeing on a passing grade based on partial grades received during the course of the semester*</u> * mark where applicable																	

C. Basic grading criteria

Examination criteria are individually specified and correspond to the educational effects

Definition of preparatory subjects and initial requirements

Knowledge in anatomy, physiology and pathophysiology of the central nervous system, physiology and pathophysiology of the respiratory system, anatomy, physiology and pathophysiology of the circulatory system
Student must have knowledge in pharmacology of general and local anesthesia drugs, as well as first aid

Subject aim

Becoming familiar with:

- basics of the subject anesthesiology and intensive therapy, with particular emphasis on preparing doctors of various specializations for cooperation with anesthesiologists
- principles of perioperative medicine
- principles of cardiopulmonary resuscitation and emergency medicine
- principles of alleviating acute and chronic pain

Curriculum

Necessary definitions, principles of working in the operating room and in the intensive therapy unit, needed knowledge, abilities, necessary competencies for an anesthesiologist. Pathophysiology of stoppage of circulation, artificial and non-artificial opening of the airways, pharmacotherapy and electrotherapy in sudden stoppage of circulation, hydroelectrolytic balance, acid-base homeostasis, ABCDE testing, the SAMPLE medical interview, opening of the airways, techniques of ventilation and chest compression, using the defibrillator. Preparing the patient for anesthesia, pre-surgery evaluation, risk evaluation.

General anesthesia: recommendations, principles, techniques, complications. Anesthesia machine. Local anesthesia : recommendations, principles, techniques, complications. Preoperative care. Cardiopulmonary resuscitation. Qualifying a patient for ICU. What to do in direct life-threatening conditions. Acute respiratory failure. Mechanical ventilation. Postsurgical pain: pathophysiology, evaluation, procedures. End-of-life issues. Futile therapy. Brain death.

Principles of general anesthesia and local anesthesia. Selection of anesthesia methods and rules of qualification. Acute cardiorespiratory failure. Mechanical ventilation.. Medical apparatuses – monitoring the patient's condition. Performing procedures used in anesthesiology and intensive therapy. Cardiopulmonary resuscitation. Preoperative care. Alleviating acute pain and therapy of chronic pain

Literature

Guidelines of the European Resuscitation Council
Anestezjologia i intensywna Terapia – podręcznik dla studentów ed. by B. Kamiński, A. Kubler
Intensywna terapia dla dorosłych Z. Rybicki
Anestezjologia R. Larsen
Anestezjologia kliniczna z elementami intensywnej terapii i leczenia bólu E. Mayzer-Zawadzka

Educational effects:

Effect no	Description of an educational effect	Reference to field of study related effects
Knowledge:		
W1	Knows the rules of preoperative safety, preparing the patient for surgery, performing a general anesthesia and local anesthesia as well as controlling sedation	F.W4
W2	Knows postoperative treatment with analgesic treatment and postoperative monitoring	F.W5
W3	Knows the recommendations and principles of using intensive therapy	F.W6
W4	Knows the current guidelines for cardiopulmonary resuscitation of newborns, children, and adults	F.W7
W5	Knows the rules of presuming and recognizing brain death	F.W15

Abilities:		
U1	Can insert a peripheral venous catheter	F.U5
U2	Performs basic resuscitative procedures with the use of automated external defibrillator as well as other rescue procedures, and provides first aid	F.U10
U2	Acts in accordance with the current algorithm of advanced life support	F.U11
U3	Can monitor the postoperative period based on basic life parameters	F.U12
U4	Evaluates the condition of an unconscious patient and defines it in accordance with the international points scales in force	F.U21
U5	Can perform basic medical procedures, including: a) taking body temperature, pulse, non-invasive measurement of blood pressure, b) monitoring life parameters with the use of a cardiomonitor, pulse oximetry, c) spirometry test, oxygen therapy, assisted ventilation, and mechanical ventilation, d) inserting oropharyngeal tube, intravenous, intramuscular, and subcutaneous injections, peripheral venous cannulation, collecting peripheral blood, collecting blood cultures, collecting arterial blood, collecting arterialized capillary blood	E.U29a-e
U6	Monitors the condition of a patient who was poisoned by chemical substances or drugs	E.U34

Social competencies:		
K1	Recognizes his own diagnosis and treatment limitations, educational needs, plans his educational activities	
K2	Can work in a professional team, in a multi-cultural and multi-national environment	
K3	Implements principles of professional collegueship and collaboration with representatives of other professions as far as healthcare	
K4	Protects patient confidentiality and patient rights	

Methods used in the verification of educational effects					
Educational effect	Type of grade				
	colloquiums	Solving problems during exercise classes	Solving problems in groups	Oral/practical examination	Written examination
W1	X			X	X
W2	X	X		X	X
W3	X	X		X	X
W4	X	X		X	X
W5	X	X		X	X
U1		X		X	X
U2		X		X	X
U2		X		X	X
U3		X		X	X
U4		X		X	X
U5		X		X	X
U6		X		X	X
K1					

K2					
K3					
K4					

The practical examination consists of checking the student's abilities with the use of simulators and examining patients as far as:

- performing basic resuscitative procedures with the use of an automated external defibrillator and other rescue procedures, as well as principles of providing first aid,
- Acting in accordance with the current algorithm of advanced life support,
- Monitoring the patient's condition during the postoperative period based on basic life parameters,
- Evaluating the condition of an unconscious patient in accordance with the international points scales in force,
- Knowing the rules of presuming and recognizing brain death,
- Knowing the rules of preoperative safety, preparing the patient for surgery, performing a general anesthesia and local anesthesia as well as controlling sedation,
- Knows the principles of inserting an oropharyngeal tube

Criteria of evaluating educational effects					
Educational effect	For a grade of 3	For a grade of 3.5	For a grade of 4	For a grade of 4.5	For a grade of 5
W1	Exhibits knowledge of the educational content on a level of 60%-69%	Exhibits knowledge of the educational content on a level of 70%-76%	Exhibits knowledge of the educational content on a level of 77%-84%	Exhibits knowledge of the educational content on a level of 85%-92%	Exhibits knowledge of the educational content on a level of 93%-100%
W2	Exhibits knowledge of the educational content on a level of 60%-69%	Exhibits knowledge of the educational content on a level of 70%-76%	Exhibits knowledge of the educational content on a level of 77%-84%	Exhibits knowledge of the educational content on a level of 85%-92%	Exhibits knowledge of the educational content on a level of 93%-100%
W3	Exhibits knowledge of the educational content on a level of 60%-69%	Exhibits knowledge of the educational content on a level of 70%-76%	Exhibits knowledge of the educational content on a level of 77%-84%	Exhibits knowledge of the educational content on a level of 85%-92%	Exhibits knowledge of the educational content on a level of 93%-100%
W4	Exhibits knowledge of the educational content on a level of 60%-69%	Exhibits knowledge of the educational content on a level of 70%-76%	Exhibits knowledge of the educational content on a level of 77%-84%	Exhibits knowledge of the educational content on a level of 85%-92%	Exhibits knowledge of the educational content on a level of 93%-100%
W5	Exhibits knowledge of the educational content on a level of 60%-69%	Exhibits knowledge of the educational content on a level of 70%-76%	Exhibits knowledge of the educational content on a level of 77%-84%	Exhibits knowledge of the educational content on a level of 85%-92%	Exhibits knowledge of the educational content on a level of 93%-100%
U1	Exhibits knowledge of the educational	Exhibits knowledge of the educational	Exhibits knowledge of the educational	Exhibits knowledge of the educational	Exhibits knowledge of the educational content on a level of 93%-100%

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K4	Exhibits knowledge of the educational content on a level of 60%-69%	Exhibits knowledge of the educational content on a level of 70%-76%			