COURSE UNIT DESCRIPTION

Course unit title	Code
Basics of Anaesthesiology and Intensive Care. First AID.	

Lecturer(s)	Department(s)
Coordinating Prof . dr. (HP) Jūratė Šipylaitė Others: Assoc. Prof. dr. Eglė Kontrimavičiūtė, Assoc. Prof. dr. Ieva Jovaišienė, Assoc. Prof. dr. Mindaugas Šerpytis, Assoc. Prof. dr. Andrius Klimašauskas , Assoc. Prof. Dr. Robertas Badaras, Teaching assist. Šarūnas Judickas, Lect. Ernestas Gaižauskas, Lect. Dalia Gineitytė-Ozolinčė, Lect. Inga Lapinskienė, Lect. Akvilė Sabestinaitė	Clinic of Anaesthesiology and Intensive Care, Institute of Clinical Medicine, Faculty of Medicine, Santariskiu str. 2, Vilnius

Cycle	Level of the course unit	Type of the course unit
First cycle (integrated studies)		Compulsory

Mode of delivery	Period of delivery	Language of instruction
Face-to-face, lectures and seminars in the auditorium, practice in the operating theatre, intensive care unit and simulator class.	Year III, V semester;	Lithuanian, English

Prerequisites and corequisites	
Prerequisites: A student must have been completed the following courses: human anatomy, human physiology, propedeutics	**Corequisites (if any):**

Number of ECTS credits allocated to the course unit	Total student's workload	Contact hours	Self-study hours
5 credits	134 hrs	67	67

Purpose of the course unit Programme competences to be developed		
The purpose of the course - to teach the ethiology and pathophysiology of acute and chronic pain, impact on the human body, principles of pain management, methods of anaesthesia and analgesia, resuscitation standards and algorithms. Graduates should know how to perform the preoperative assessment, determine the physical status and risk of anaesthesia, evaluate the adequacy of the anaesthesia and vital functions of the patient, and provide initial and special resuscitation when needed.		
Learning outcomes of the course unit	**Teaching and learning methods**	**Assessment methods**
General competence acquired by the student during the course:		
Be honest and behave according to the basic ethical principles, be critical and self-critical in decision-making, be creative,	Practical training in the operating theatre and	Continuous evaluation of knowledge and skills achieved in the operating theatre,

show initiative at work and focus on the main purposes, also being good member of the team.	intensive care unit, also in the simulator class.	intensive care unit and simulator class.
To know the limits of his own competence and seek for help from colleagues in a timely manner, solve the problems and make decisions, be communicative and be active in the team-work with experts from other specialties.	Practical training in the operating theatre and intensive care unit, also in the simulator class.	Continuous evaluation of knowledge and skills achieved in the operating theatre, intensive care unit and simulator class.
Specialty competence acquired by the student during the course:		
Pre-anaesthetic assessment and consulting of the patient: collecting the patient's history of illness, basic medical examination, defining the clinical conclusion of the assessment and decision-making, obtain informed consent of the patient and provide reassurance.	Analysis and discussion of the clinical cases in the operating theatre and intensive care unit.	Continuous evaluation of knowledge and skills achieved in the operating theatre, intensive care unit and simulator class. Exam in a written form at the end of the course.
Consult the patient in a critical condition: collection of anamnesis, medical examination, clinical evaluation and decision-making, prescription of relevant drugs and other treatment methods in the clinical context; evaluate the appropriateness and potential benefits and harms of drugs and other treatment;	Analysis and discussion of the clinical cases in the operating theatre and intensive care unit.	Continuous evaluation of knowledge and skills achieved in the operating theatre, intensive care unit and simulator class. Exam in a written form at the end of the course.
Knowledge of emergency medicine and resuscitation, also providing basic life support according un-to-date EU standards.	Practical training in the intensive care unit, also in the simulator classes and workshop-stations (mannequins), lectures.	Continuous evaluation of knowledge and skills achieved in the intensive care unit and simulator classes, also during analysis of clinical cases. Exam in a written form at the end of the course.
Perform procedures: measure arterial blood pressure, oxygen therapy, transport patients and care for them, ECG, monitor and measure main circulatory and respiratory functions	Practical training in the operating theatre and intensive care unit, also in the simulator class.	Continuous evaluation of knowledge and skills achieved in the operating theatre and intensive care unit.

Topics	**Contact work hours**							**Time and tasks of self-study**	
	Lectures	Consultations	Seminars	Practice	Laboratory work	Practical training	**Total contact hours**	**Self-education**	**Tasks**
1 History of anaesthesia development. Types of anaesthesia. Components of general anaesthesia.	2						**2**	**2**	Get acquainted with the literature about the history of anaesthesia development in Lithuania and the world, also types of anaesthesia and components of general anaesthesia.

2	Physiology of pain and related pharmacology			3				**3**	**3**	Get acquainted with the literature about the physiology of pain and related pharmacology.
3	Inhalational anaesthesia. Airway management. Intubation of trachea				3			**3**	**3**	Get acquainted with the literature about the pharmacokinetics and pharmacodynamics of inhalation agents, and their choice, about the assessment of airways, intubation of trachea and other methods of airway management. Learn the algorithm of difficult airways.
4	Evaluation of the patient before anaesthesia, risk assessment, preparation for anaesthesia	2			6			**8**	**4**	Get acquainted with the literature about the risk assessment of anaesthesia and surgery, also preparation for anaesthesia.
5	Inhalational anaesthesia. Airway management. Intubation of trachea				3			**3**	**4**	Get acquainted with the literature about the pharmacokinetics and pharmacodynamics of inhalation agents, and their choice, about the assessment of airways, intubation of trachea and other methods of airway management. Learn the algorithm of difficult airways.
6	Non-inhalational anaesthesia. Muscle relaxants				3			**3**	**4**	Get acquainted with the literature about the pharmacokinetics and pharmacodynamics of medications deployed for non-inhalational anaesthesia, also their choices.
7	Monitoring during anaesthesia and critical illness	2			3			**5**	**4**	Get acquainted with the literature about the principles of patient monitoring during anaesthesia and in the ICU.
8	Local and regional anaesthesia				3			**3**	**4**	Get acquainted with the literature about the principles of local and regional anaesthesia, also the related complications.
9	Complications of anaesthesia	2			3			**5**	**4**	Get acquainted with the literature about the diagnosis and management of complications in anaesthesia.
10	Basic life support (BLS)	2			3			**5**	**4**	Get acquainted with the literature about the BLS and work with the simulation mannequins.
11	Advanced life support (ALS)	2			3			**5**	**4**	Get acquainted with the literature about the BLS and ALS, and work with the simulation mannequins.
12	Treatment of patients after resuscitation				3			**3**	**4**	Get acquainted with the literature about treatment of patients in the ICU after resuscitation.
13	Resuscitation in emergencies				3			**3**	**4**	Get acquainted with the literature about the resuscitation and work with the simulation mannequins.

									Learn the principles of life support in emergencies.
14	Toxycology, diagnosis and treatment principles				3			**3**	**4**	Get acquainted with the literature about basics toxycology
15	Sepsis, diagnosis and treatment	2			3			**5**	**6**	Get acquainted with the literature about sepsis, diagnosis and treatment
16	Shock, diagnosis and treatment	2			3			**5**	**4**	Get acquainted with the literature and shock of various ethiology
17	Test				3			**3**	**5**	
	Total	**16**		**3**	**48**			**67**	**67**	

Assessment strategy	**Weight (%)**	**Assessment period**	**Assessment criteria**
Examination: test writing at the end of the semester	100 %	June	The test is composed of 60 questions (of different complexity, from understanding to assessment). The assessment is as follows: 10 (Excellent): Excellent performance, outstanding knowledge and skills. 95-100 % correct answers. 9 (Very good): Strong performance, good knowledge and skills 85-94 % correct answers. 8 (Good): Above the average performance, knowledge and skills 75-84 % correct answers. 7 (Highly satisfactory): Average performance, knowledge and skills with unessential shortcomings 65-74 % correct answers. 6 (Satisfactory): Below average performance, knowledge and skills with substantial shortcomings. 55-64 % correct answers. 5 (Sufficient): Knowledge and skills meet minimum criteria. 45-54 % correct answers. 4, 3, 2, 1 (Insufficient): Knowledge and skills do not meet minimum criteria/below minimum criteria. 0-44 % correct answers. Failed.

Author	**Year of publication**	**Title**	**No of periodical or vol. of publication**	**Publication place and publisher or Internet link**
Required reading				
Ronald D. Miller, Manuel C. Pardo	2011	Basics of Anesthesia		Elsevier Saunders
European Resuscitation Council	2021	Resuscitation guidelines		https://cprguidelines.eu/
P. Dewachter, L. Savic	2019	Perioperative anaphylaxis: pathophysiology, clinical presentation and management		BJA Education, 19(10): 313e320 (2019) https://www.bjaed.org/action/showPdf?pii=S2058-5349%2819%2930110-6
Recommended reading				
