

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-AiTDe	
Name of discipline	Polish	Anestezjologia i intensywna terapia dziecięca
	English	Anaesthesiology and intensive paediatric care

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	dr n. med. Małgorzata Szerla
1.8. Person responsible for the discipline	Dr n. med. Małgorzata Szerla
1.9. Person conducting the discipline	Dr n. med. Małgorzata Szerla
1.10. Contact	malgorzata.szerla@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study to achieve the assumed clinical outcomes the student must possess knowledge of the essentials of medicine, which is obtained after 1-5 semesters of study
2.5. Preliminary requirements	anatomy, physiology, pathology, microbiology, immunology, pharmacology with toxicology, neurology, paediatrics, neonatology, surgery, paediatric surgery, gynaecology and obstetrics.

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	LECTURES: 15 hours, CLASSES – 20 hours	
3.2. Way of conducting classes	Lectures –in didactic rooms of the UJK Classes – Paediatric Anaesthesiology and Intensive Care Unit, Anaesthesiology Consultation Clinic; Department of Paediatric Surgery, Urology and Traumatology	
3.3. Way of obtaining credits for classes	Credit with grade	
3.4. Didactic methods	seminar, discussion, case study in natural conditions; participation in consultations and senior staff meetings	
3.5. List of literature	basic	1. Carl L. Gwinnutt: Lecture Notes: Clinical Anaesthesia, 3rd ed., Wiley Blackwell 2008 2. P. Marino: The ICU Book 3rd ed. Lippincot 2006 European Resuscitation Council Guidelines for Resuscitation 2010. Available at www.erc.edu
	supplementary	1. Aitkenhead AR, Smith G, Rowbotham DJ. Textbook of Anaesthesia. 5th ed. Churchill Livingstone 2006 2. Smith T, Pinnock C, Lin T, Jones R. Fundamentals of Anaesthesia 3rd ed., Cambridge University Press, 2010,

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims

C₁ – Acquisition of knowledge concerning the specificity of paediatric anaesthesiology and intensive care (patients at developmental age) and risk management in interdisciplinary area of peri-operative medicine;

C₂ – Teaching the skills of anticipation, assessment and risk management, and optimization of peri-operative safety at all stages of management of a paediatric patient through peri-operative experience, i.e. during pre-

hospitalization period, during and after hospitalization.

C3 - Teaching ethical, holistic and interdisciplinary approach to the management of children during peri-operative period and in intensive care unit in accordance with the European Charter of Patients' Rights (2002) and the Helsinki Declaration on Patient Safety in Anaesthesiology (2010), and the Guidelines for safe anaesthesia of children by the Consultation Council of the Polish Association of Anaesthesiology and Intensive Care for the matters of Quality and Safety of Anaesthesia (2010).

4.2. Programme content

LECTURES (lecture room at the UJK, conference room and/or seminar room at the Regional Polyclinical Hospital):

- Principles of optimization of safety and risk management in paediatric anaesthesiology and intensive care – dictated by age specificity of children at various periods of turbulent puberty and development (3 hours)
- Legal aspects concerning anaesthetizing paediatric patients: Guidelines for safe anaesthesia of children by the Consultation Council of the Polish Association of Anaesthesiology and Intensive Care for the Matters of Quality and Safety of Anaesthesia, Regulation by the Minister of Health of 10 November 2006 (Journal of Laws, No.06.213.1568 with later amendment of 08.30.187) (3 hours)
- Specificity of anaesthesia and intensive care in therapy of an infant: mature, pre-term, extremely immature with low birth weight (3 hours)
- Specificity of anaesthesia and intensive care in children with considerably elevated or extremely high peri-operative risk – children 'too ill' to undergo anaesthesia (3 hours)
- Ethics in neonatology and paediatrics – management with respect to a child with permanent life threatening incurable disease. Difficult and frank conversations with parents, whether to lavish an easy 'promise' of hope in intensive care. Palliative care an alternative for things which are impossible to fulfil. (3 hours)

PRACTICAL CLASSES (Anaesthesiology Consultation Clinic, Operating Block, Post-Operative Supervision Room – 'awaking room', laboratories for imaging tests and endoscopy, paediatric intensive care ward):

- Qualification of children for planned surgical procedures – assessment of peri-operative risk according to the ASA classification (3 hours)
- Supervising paediatric patient at all stages of general and local anaesthesia, and analgosedation (3 hours).
- Supervising child after anaesthesia and assessment of the degree of awakening following anaesthesia, and evaluation of the degree of awakening from anaesthesia according to the Steward. Algorithm of post-operative care directly after the procedure and discharge from the Post-Operative Supervision Room (awakening room) (5 hours).
- Participation in making diagnosis, monitoring and intensive care of children with disorders of consciousness, respiration, circulatory, renal, multi-organ injuries, burns, in severe sepsis and in septic shock (6 hours).
- Clinical, laboratory and spirometric monitoring of respiratory failure treated using a respirator (3 hours).

Education outcomes in the discipline				
Code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE :				
W01	knows the most common life-threatening conditions in children and the rules of conduct in these states;	++	E.W6.	
W02	knows the principles concerning the treatment of	+	E.W29.	

	pain, including cancer and chronic pain;			
W03	knows and understands the capabilities and limitations of laboratory tests in emergency situations;	+	E.W39.	
W04	knows eligibility rules as well as basic and most common complications of surgery and other invasive diagnostic and treatment procedures;	+	F.W3.	
W05	knows perioperative safety rules, preparing a patient for surgery, general and local anesthesia and controlled sedation	++	F.W4.	
W06	knows postoperative treatment and analgesic therapy as well as post-operative monitoring;	++	F.W5.	
W07	knows indications and rules for the application of intensive therapy;	++	F.W6.	
W08	knows the current guidelines for cardiopulmonary resuscitation of the newborns, children and adults;	++	F.W7.	
W09	knows the principles of the integrated state system of medical rescue;	+	F.W8.	
W10	knows the problem of surgical transplantation, indications for the transplantation of irreducibly damaged organs and tissues, and related procedures;	+	F.W14.	
W11	knows the rules concerning the diagnosis of brain death.	+	F.W15.	
within the scope of SKILLS :				
U01	conducts a review of medical history of the child and its family;	++	E.U2.	
U02	conducts physical examination of the child at any age;	+	E.U4.	
U03	performs differential diagnosis of the most common diseases in adults and children;	+	E.U12.	
U04	assesses and describes the somatic and mental state of patients;	+	E.U13.	
U05	recognizes states of a direct threat to life;	++	E.U14.	
U06	recognizes when a patient is under the influence of alcohol, drugs and other addictive products;	+	E.U15.	
U07	plans diagnostic, therapeutic and preventive procedures;	+	E.U16.	
U08	conducts analysis of the potential side effects of each drug and the interaction between them;	+	E.U17.	
U09	applies dietary treatment (including enteral and parenteral feeding);	+	E.U25.	
U10	implements the basic therapeutic procedure in acute poisoning;	+	E.U33.	
U11	monitors the status of a patient poisoned by chemical substances or drugs;	+	E.U34.	
U12	performs basic resuscitation with automated external defibrillator and other rescue activities and provides first aid;	++	F.U10.	
U13	acts in accordance with the current algorithm of advanced life support activities;	++	F.U11.	
U14	monitors the postoperative period basing on the basic parameters of life;	++	F.U12.	

U15	during child examination recognizes symptoms indicating the possibility of using violence against the child;	+	G.U5.	
U16	collects blood for toxicological studies and secures the material for hemogenetic research in accordance with given principles.	++	G.U7.	

4.3. Criteria for evaluation of obtained education outcomes

Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lecture				
Learning programme content on the basic level, replies chaotic, leading questions necessary.	Learning programme content on the basic level, answers systematized, requires assistance from the teacher.	Learning programme content on the basic level, answers systematized, independent. Solving of problems in typical situations.	The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations	The scope of presented knowledge exceeds the basic level based on independently acquired scientific sources of information.
Criteria for evaluation of oral answer				
<ol style="list-style-type: none"> 1. Provision of a comprehensive answer to the problem (task) 2. Skill of integration of knowledge from allied domains (disciplines) 3. Independence and/or creativity in the presentation of the scope of problems, proposals of solutions 4. Presentation of the current knowledge related with the discipline (domain) 5. Recognition of problems resulting from the task 				
Criteria for evaluation of written answer				
<ol style="list-style-type: none"> 1. Compliance with the essence of the subject matter of work (task) 2. Provision of a comprehensive answer to the problem (task) 3. Skill of integration of knowledge from allied domains (disciplines) 4. Independence and/or creativity in the presentation of the scope of problems 5. Presentation of the current knowledge related with the discipline (domain), pertinent selection of literature 				

4.4. Evaluation methods

Oral examination	Written examination	Project	Colloquium - with grade	Homework	Presentation Reports	Discussions	Others
			X		X	X	

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10

Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-CHN	
Name of discipline	Polish	Chirurgia naczyniowa
	English	Vascular surgery

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study specialty	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	dr hab. n. med. Maciej Kielar Prof. UJK
1.8. Person responsible for the discipline	dr hab. n. med. Maciej Kielar Prof. UJK
1.9. Person conducting the discipline	dr hab. n. med. Maciej Kielar Prof. UJK
1.10. Contact	Kielar63@interia.pl. Tel 601284203

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semester of study
2.5. Preliminary requirements	Performed outcomes in general surgery

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

5.1. Types of classes	lectures, seminars, practical trainings	
5.2. Way of conducting classes	Lecture halls at the Faculty, department of vascular surgery	
5.3. Way of obtaining credits for classes	Tests, oral examinations, syllabus	
3.1. Didactic methods	verbal, perceptions, independent experiences, use of didactic resources	
3.2. List of literature	basic	1. Eureka: Cardiovascular Medicine 9781907816826 2. Cardiovascular Intervention 9780323262194
	supplementary	Master Techniques in Surgery: Vascular Surgery: Hybrid, Venous, Dialysis Access, Thoracic Outlet, ISBN: 9781451191578

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

<p>4.1. Aims</p> <p>C₁- familiarizing students with symptoms, clinical image, course, prognosis, risk factors and epidemiology of vascular diseases</p> <p>C₂- presentation of diagnostic techniques in diseases of arteries and veins</p> <p>C₃ - familiarizing students with the methods of conservative treatment, rehabilitation, and surgical treatment of vascular diseases (classic and endovascular)</p> <p>C₄ - acquisition of knowledge of immediate and distant results of surgical treatment, occurrence of early and distant complications (local, infectious, cardiovascular, metabolic (reperfusion syndrome). Assessment of the quality of life during the course of treatment of vascular diseases, post-operative and ambulatory care. Progress in vascular surgery.</p>

<p>4.2. Programme content</p> <p>Education in the field of vascular surgery</p> <p>Educational content</p> <ol style="list-style-type: none"> 1. Anatomy and physiology of the vascular system. 2. Clinical symptoms of diseases of arteries and veins, classification of vascular diseases. 3. Diagnostics of vascular diseases: clinical examinations, imaging tests (Doppler USG, angiotomography,

angioresonance, digital angiography, scintigraphy, other diagnostic methods)

4. Indications and contraindications for conservative and surgical treatment in diseases of arteries and veins
5. Methods of conservative treatment.
6. Surgical treatment of diseases of arteries and veins. Classic and endovascular surgery.
7. Technical aspects of classic and endovascular surgeries, equipment, instruments, vascular prostheses, stents and stent-grafts.
8. Perioperative care, most frequent complications immediate and distant (local surgical complications, infections, cardiovascular, haematologic).
9. Outcomes of surgical and conservative treatment, assessment of the quality of life following bypass surgery.
10. Secondary vascular procedures, outcomes, risk, complications.
11. Progress in vascular surgery. Contribution of Polish medicine to the development of this domain of surgery.
New perspectives: progress in biotechnology, gene therapy, importance of angiogenic cytokines in the treatment of vascular diseases

Education outcomes in the discipline				
code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/ <u>standard</u>
within the scope of KNOWLEDGE :				
W01	knows anatomical, histological and embryological terminology in Polish and English;	+	A.W1.	
W02	knows human anatomy topographically (upper and lower limb, chest, abdomen, pelvis, back, neck and head) and functionally (respiratory system, digestive system, urogenital system, nervous system and sense organs, integumentary system);	+	A.W2.	
W03	knows eligibility rules as well as basic and most common complications of surgery and other invasive diagnostic and treatment procedures;	++	F.W3.	
W04	knows perioperative safety rules, preparing a patient for surgery, general and local anesthesia and controlled sedation;	+	F.W4.	
W05	knows postoperative treatment and analgesic therapy as well as post-operative monitoring;	+	F.W5.	
W06	knows the issues concerning modern imaging tests, in particular: a) basic radiological symptomatology of diseases, b) instrumental methods and imaging techniques used to perform medical treatments, c) the indications, contraindications and preparation of patients to particular types of imaging tests and contraindications the use of contrast agents;	+	F.W10.	

within the scope of **SKILLS:**

U01	conducts a review of medical history of the adult patient;	+	E.U1.	
U02	conducts a review of medical history of the child and its family;	++	E.U2.	
U03	conducts full and targeted physical examination of the adult patient;	+	E.U3.	
U04	performs differential diagnosis of the most common diseases in adults and children;	+	E.U12.	
U05	recognizes states of a direct threat to life;	++	E.U14.	
U06	plans diagnostic, therapeutic and preventive procedures;	+	E.U16.	
U07	qualifies the patient for home treatment and hospitalization;	+	E.U20.	
U08	assists during a typical surgery, prepares the surgical site and locally anesthetizes operated area;	+	F.U1.	
U09	uses basic medical tools;	+	F.U2.	
U10	complies with the aseptic and antiseptic rules;	+	F.U3.	
U11	manages simple wounds and changes sterile surgical dressing;	+	F.U4.	
U12	collects blood for toxicological studies and secures the material for hemogenetic research in accordance with given principles.	++	G.U7.	

4.3. Criteria for evaluation of obtained education outcomes

Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lecture – test results				
51%- 60%	61%-70%	71%-80%	81%-90%	91%-100%

4.4. Evaluation methods

Oral examination	Written examination	Project	Colloquium - with grade	Homework	Presentation Reports	Discussions	Others
	x						

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	

Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-DOwO	
Name of discipline	Polish	DIAGNOSTYKA OBRAZOWA W ONKOLOGII
	English	IMAGING DIAGNOSTICS IN ONCOLOGY

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	dr n. med. Michał Spalek
1.8. Person responsible for the discipline	dr n. med. Michał Spalek
1.9. Person conducting the discipline	dr n. med. Michał Spalek
1.10. Contact	michal_spa@op.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	knowledge in the field of anatomy, biophysics and radiology within the scope of study programme first-cycle licentiate study on the level of examination/final credit

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	LECTURE: 15, CLASSES: 20	
3.2. Way of conducting classes	Lecture - Classes in didactic rooms of the UJK Classes - classes in didactic rooms of the UJK and the Kielce Region Cancer	
3.3. Way of obtaining credits for classes	L: credit with grade C – credit with grade	
3.4. Didactic methods	L – information lecture with oral imparting of knowledge and use of visual means C – conversation lecture, discussion related with lecture, display with description, analysis of cases	
3.5. List of literature	basic	Clinical Radiation Oncology 9780323240987
	supplementary	Radiation Oncology - A Question Based Review, ISBN: 9781451191998

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims SEMESTER IV C1 – Obtaining knowledge of techniques of imaging diagnostics used in oncology. C2 – Obtaining knowledge of diagnostic algorithms in oncology. C3 – Preparation for the use of proper imaging techniques in oncology. C4 – Becoming familiarized with the safety principles while performing various diagnostic procedures in oncology.
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4.2. Programme content

Lectures

- Ultrasound in oncology
Physical and technical essentials. Doppler ultrasound, Contrast media. Preparation of the patient for USG examinations.
- Rentgenodiagnosics in oncology.
Physical and technical essentials. Contrast media. Rentgenodiagnostic imaging systems. Conventional X-rays photographs. Digital radiology. X-ray. Radiological functional examinations. Possibilities and limitations of individual methods. Preparation of patient for individual radiological examinations.
- Computed tomography in oncology
Physical and technical essentials. Contrast media. Possibilities and limitations of the method. Preparation of patient for computed tomography examinations.
- Magnetic resonance in oncologic diagnostics
Physical and technical essentials. Contrast media. Possibilities and limitations of the method. Preparation of patient for magnetic resonance.
- Scintigraphy, SPECT and PET/CT in oncologic diagnostics
Physical and technical essentials. Radiopharmaceutics. Possibilities and limitations of the method. Preparation of patient for scintigraphy, SPECT and PET/CT.

Classes

- Ultrasound in emergency cases - possibilities and limitations of the method.
- Rentgenodiagnosics in the states of emergency - possibilities and limitations of the method.
- Computed tomography in the states of emergency in the states of emergency - possibilities and limitations of the method.
- Magnetic resonance in the states of emergency - possibilities and limitations of the method.
- Scintigraphy, SPECT and PET/CT – possibilities and limitations of the method.

Education outcomes in the discipline				
Code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE:				
W01	knows the physical basis of non-invasive imaging methods;	+	B.W8.	
W02	knows the possibilities of modern telemedicine as a tool to support the work of a physician;	+	B.W33.	
W03	knows basic principles of stimulation and conduction in the nervous system and higher nervous functions, as well as physiology of striated and smooth muscles and functions of blood;	++	E.W24.	
W04	knows the issues concerning modern imaging tests, in particular: a) basic radiological symptomatology of diseases, b) instrumental methods and imaging techniques used to perform medical treatments, c) the indications, contraindications and preparation of patients to particular types of imaging tests and contraindications the use of contrast agents;	++	F.W10.	

within the scope of SKILLS:				
U01	makes conclusions as to the relationship between anatomical structures on the basis of intravital diagnostic tests, in particular in the field of radiology (plain images, tests using contrast agents, CT scans and magnetic resonance imaging);	+	A.U4.	
U02	conducts a review of medical history of the child and its family;	++	E.U2.	

Criteria for evaluation of obtained education outcomes				
Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lecture				
Acquired knowledge and skills mentioned in point 4.3 within the 'satisfactory' scope - obtaining 51- 60% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'satisfactory' – obtaining 61-70% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the 'good' scope – obtaining 71-80% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'good' – obtaining 81-90% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope 'very good' – obtaining more than 90% points for final credit
Classes				
Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'satisfactory' – obtaining 51-60% points form final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'satisfactory' – obtaining 61-70% points form final credit	Acquired knowledge and skills mentioned in point 4.3 within the 'good' scope – obtaining 71-80% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'good' – obtaining 81-90% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope 'very good' – obtaining more than 90% points for final credit

Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Presentation Report	Discussions	Others
						X* (classes)	X (lectures) - final credit from the thematic scope of lectures in a written or oral form X (classes) - final credit from the thematic scope of classes in a written or oral

							form
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* points obtained during the discussion are added to the points obtained from final credit

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL TRAINING	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-DOWSN	
Name of discipline	Polish	DIAGNOSTYKA OBRAZOWA W STANACH NAGLYCH
	English	EMERGENCY DIAGNOSTIC IMAGING

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	dr n. med. Michał Spalek
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1.9. Person conducting the discipline	dr n. med. Michał Spalek
1.10 Contact	michal_spa@op.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	knowledge in the area of anatomy, biophysics and radiology

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	LECTURE: 15, CLASSES: 20	
3.2. Way of conducting classes	Lectures - in didactic rooms of the UJK Classes - didactic rooms of the UJK and the Kielce Region Cancer Centre	
3.3. Way of obtaining credits for classes	Lectures: credit with grade C – credit with grade	
3.4. Didactic methods	Lectures – information lecture with oral imparting of knowledge and use of visual means Classes – conversation lecture, discussion related with the lecture, display with description, analysis of cases	
3.5. List of literature	Basic	Emergency Radiology: The Requisites, ISBN: 9780323376402
	Supplementary	Problem Solving in Emergency Radiology, ISBN: 9781455754175

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims
SEMESTER IV
C1 – Familiarization with the techniques of imaging diagnostics used in the states of emergency.
C2 – Obtaining knowledge of diagnostic algorithms in the states of emergency.
C3 – Preparation for using proper imaging techniques in the states of emergency.
C4 – Familiarization with the safety principles while performing various diagnostic imaging procedures in paediatrics.

4.2. Programme content

Lectures

- Ultrasound in the states of emergency
Physical and technical essentials. Doppler ultrasound. Contrast media. Preparation of the patient for USG examination.
- Rentgenodiagnosics in the states of emergency
Physical and technical essentials. Contrast media. Imaging systems in rentgenodiagnosics. Conventional X-ray. Digital radiology. X-ray picture. Radiological functional examinations. Possibilities and limitations of particular methods. Preparation of the patient for particular rentgenologic examinations.
- Computed tomography in diagnostics of the states of emergency
Physical and technical essentials. Contrast media. Possibilities and limitations of the method. Preparation of the patient for computed tomography.
- Magnetic resonance in diagnostics of the states of emergency
Physical and technical essentials. Contrast media. Possibilities and limitations of the method. Preparation of the patient for magnetic resonance examinations.
- Basic problems within the scope of radiological protection.
Types of ionizing radiation. Immediate and distant somatic effects of radiation. Dose limits related with occupational exposure, types of control of doses. Methods of protection of patient against an excessive exposure.

Classes

- Ultrasound in the states of emergency - possibilities and limitations of the method.
- Rentgenodiagnosics in the states of emergency – possibilities and limitations of the method.
- Computed tomography in the states of emergency - possibilities and limitations of the method.
- Magnetic resonance in the states of emergency - possibilities and limitations of the method.

Education outcomes in the discipline				
Code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE :				
W01	knows human anatomy topographically (upper and lower limb, chest, abdomen, pelvis, back, neck and head) and functionally (respiratory system, digestive system, urogenital system, nervous system and sense organs, integumentary system);	+	A.W2.	
W02	knows the physical basis of non-invasive imaging methods;	+	B.W8.	
W03	knows and understand the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common diseases requiring surgical intervention, taking into account the individuality of childhood, in particular: a) acute and chronic diseases of the abdominal cavity, b) diseases of the chest, c) diseases of limbs and head, d) bone fractures and injuries of organs;	++	F.W1.	
W04	knows the issues concerning modern imaging tests, in particular:	++	F.W10.	

	a) basic radiological symptomatology of diseases, b) instrumental methods and imaging techniques used to perform medical treatments, c) the indications, contraindications and preparation of patients to particular types of imaging tests and contraindications the use of contrast agents;			
within the scope of SKILLS :				
U01	makes conclusions as to the relationship between anatomical structures on the basis of intravital diagnostic tests, in particular in the field of radiology (plain images, tests using contrast agents, CT scans and magnetic resonance imaging);	+	A.U4.	
U02	collects blood for toxicological studies and secures the material for hemogenetic research in accordance with given principles.	++	G.U7.	

4.3. Criteria for evaluation of obtained education outcomes				
Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lectures				
Acquired knowledge and skills mentioned in point 4.3 within the satisfactory scope - obtaining 51- 60% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'satisfactory' – obtaining 61-70% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the 'good' scope – obtaining 71-80% points from final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'good' – obtaining 81-90% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope 'very good' – obtaining more 90% points for final credit
Classes				
Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'satisfactory' – obtaining 51-60% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'satisfactory' – obtaining 61-70% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the 'good' scope obtaining 71-80% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'good' – obtaining 81-90% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope 'very good' – obtaining more than 90% points from final credit

4.4. Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussions	Others
						X * (classes)	X (lectures) - final credit from the thematic scope of lectures in a written or oral form X (classes) - final credit from the thematic scope of classes in

							a written or oral form
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* points obtained during the discussion are added to the points obtained from final credit

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-EI	
Name of discipline	Polish	Elektrofizjologia
	English	Electrophysiology

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	I Cardiology Clinic, Kielce Region Cardiology Centre, Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	Prof. dr hab. n.med. B. Woźakowska-Kapłon
1.8. Person responsible for the discipline	Prof. dr hab. n.med. B. Woźakowska-Kapłon
1.9. Person conducting the discipline	Prof. dr hab. n.med. B. Woźakowska-Kapłon
1.10. Contact	bw.kaplon@poczta.onet.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	Anatomy, physiology, pathophysiology

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lectures, 15 Classes: 20	
3.2. Way of conducting classes	Classes: in didactic rooms of the UJK and I Cardiology Clinic, Kielce Region Cardiology Centre	
3.3. Way of obtaining credits for classes	Classes – credit with grade	
3.4. Didactic methods	conversation lecture, discussion, case study in natural conditions	
3.5. List of literature	basic	1. Ziad Issa, John M. Miller, Douglas P. Zipes. Clinical Arrhythmology and Electrophysiology. A companion to Braunwald's Heart Disease. ISBN: 978-1-4557-1274-8 2. Shoen J. Stephen Huang, John M. Miller. Catheter Ablation of Cardiac Arrhythmias. ISBN: 978-0-323-24429-9
	supplementary	1. Douglas P. Zipes. Cardiac Electrophysiology: From Cell to Bedside. ISBN: 978-1-4557-2856-5 2. Mark E. Josephson. Josephson's Clinical Cardiac Electrophysiology.

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims
C1 acquisition of knowledge concerning the application of electrophysiological examinations
C2 acquisition of knowledge concerning the application of the treatment of arrhythmia using ablation
C3 acquisition of skills of basic interpretation of electrophysiological examinations

4.2. Programme content	
Classes	
1. Clinical anatomy of the heart for electrophysiologists (1 hour)	
2. General principles of electrophysiological study of the heart (1hour)	
3. Indications for electrophysiological study and cardiac ablation (1 hour)	
4. Complications of electrophysiological study of the heart and ablation. Prevention and treatment (1hour).	
5. Atrio-ventricular nodal reentry tachycardia (hour)	
6. High frequency current ablation of accessory conduction pathways (1hour)	
7. Atrial tachycardia (1 hour)	
8. Atrial fibrillation – mechanisms of development and pulmonary veins isolation (1 hour)	
9. Ablation of the atrioventricular junction (1hour)	
10. Typical atrial flutter (1hour)	
11. Ventricular tachycardia in patients without restrictive heart disease and on the background of restrictive heart disease (1 hour)	
12. Ablation by classical method (1hour)	
13. Ablation of mapping ventricular tachycardia using electroanatomic system in patients with restrictive heart disease (1hour)	
14. Ventricular tachycardia in patients with restrictive heart disease: ablation using electroanatomical mapping system (1hour)	
15. New ablation techniques – application in practice (1hour)	

code	Student who obtained credit	Degree of saturation of major education outcomes [+] [++] [+++]	Reference to education outcomes	
			for discipline	for the area
within the scope of KNOWLEDGE :				
W01	knows basic principles of stimulation and conduction in the nervous system and higher nervous functions, as well as physiology of striated and smooth muscles and functions of blood;	++	B W24	
W02	knows the functions and mechanisms of regulation of all organs and systems of the human body, including the: circulatory, respiratory, digestive, and urinary systems as well as skins and understands the dependence between them;	+	B W25	
within the scope of SKILLS :				
U01.	performs a simple function tests evaluating the human body as a system stable regulation (stress tests); interprets the figures on the basic physiological variables;	+	B U8	

4.3. Criteria for evaluation of obtained education outcomes				
Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lectures				
Learning programme content on the basic level, replies chaotic, leading questions necessary.	Learning programme content on the basic level, answers systematized, requires assistance from the teacher.	Learning programme content on the basic level, answers systematized, independent. Solving of problems in typical situations.	The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations	The scope of presented knowledge exceeds the basic level based on independently acquired scientific sources of information.
Classes				

from 50%	from 62.5%	from 75%	from 82.5%	from 90%
Criteria for evaluation of oral answer				
1. Provision of a comprehensive answer to the problem (task)				
2. Skill of integration of knowledge from allied domains (disciplines)				
3. Independence and/or creativity in the presentation of the scope of problems, proposals of solutions				
4. Presentation of the current knowledge related with the discipline (domain)				
5. Recognition of problems resulting from the task				
Criteria for evaluation of written answer				
1. Compliance with the essence of the subject matter of work (task)				
2. Provision of a comprehensive answer to the problem (task)				
3. Skill of integration of knowledge from allied domains (disciplines)				
4. Independence and/or creativity in the presentation of the scope of problems				
5. Presentation of the current knowledge related with the discipline (domain), pertinent selection of literature.				

4.4. Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussions	Other
			x				

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-El	
Name of discipline	Polish	Elektrokardiografia
	English	Electrocardiography

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences, II Cardiology Clinic UJK
1.7. Person preparing course description chart	Prof. dr hab. n. med. Marianna Janion
1.8. Person responsible for the discipline	Prof. dr hab. n. med. Marianna Janion
1.9. Person conducting the discipline	Prof. dr hab. n. med. Marianna Janion
1.10. Contact	wnoz_ujk@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	Knowledge within the scope of the modules: morphological sciences and scientific essentials of medicine

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	lectures, classes	
3.2. Way of conducting classes	Lectures – didactic rooms at the UJK Classes – Cardiology Clinic	
3.3. Way of obtaining credits for classes	Lectures – credit with grade Classes – credit with grade	
3.4. Didactic methods	conversation lecture, discussion, case study in natural conditions	
3.5. List of literature	basic	1. Methods for the Economic Evaluation of Health Care Programmes (Oxford Medical Publications, 2015) by Michael F. Drummond et al. 4th ed 2. Decision modelling for health economic evaluation (Oxford medical publications 2006) by Andrew Briggs et al.
	supplementary	Cost-effectiveness in health and medicine by (Oxford University Press 1996) Marthe R. Gold et al. 1st ed.

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims	Expansion of knowledge within the scope of electrocardiography Preparation of student for independent planning of diagnostic procedure, interpretation of ECG results
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4.2. Programme content

Lectures -15 hours

1. Physical essentials of electrocardiography. Relationship between electrical phenomena in the heart and electrocardiogram. Techniques of registration of electrocardiogram. Lead systems: bipolar limb leads Einthoven (I, II, III), augmented unipolar Goldberg's leads (aVR, aVL, aVF), unipolar precordial Wilson's leads (V1, V2, V3, V4, V5, V6). Right ventricular leads. Frank's orthogonal leads (3 hours).
2. Assessment of morphology of electrocardiographic recording. Supraventricular arrhythmias (3 hours).
3. Sick sinus syndrome, ventricular arrhythmias. Disorders of atrioventricular conductivity (3 hours.).
4. Indications and contraindications for artificial heart stimulation. Evaluation of electrocardiogram in patient with inserted pacemaker (3 hours.).
5. Electrocardiogram in other pathological conditions – differences in ECG in patients with cardiac disorders. (3 hours).

Classes- 20 hours.

1. Familiarization with the construction and the principle of operation of an electrocardiograph. Calibration of amplitude and sweep speed. Correct performance of connections. Automation of recording. Most frequently occurring artifacts on the ECG recording. Registration of ECG signal on monitors in the monitoring system (3 hours).
2. Characteristic features of ECG recording: waves, elevations, intervals, ORS complex. Signal amplitude. Elevation and depression. Determination of the electrical axis of the heart. Practical performance of ECG recordings and their interpretation. Descriptions of ECG. (3 hours).
3. Assessment of the occurring changes and their location in the ECG recording. Analysis of ECG with supraventricular arrhythmias (3 hours).
4. Analysis of ECG recordings with sick sinus syndrome, ventricular arrhythmias. Analysis of ECG recordings with disorders of atrioventricular conductivity (3 hours).
5. ECG registration according to the Holter method. Evaluation of Holter recording. Main types of artificial stimulation of the heart – types of pacemakers. Typical changes in ECG in pathological conditions other than cardiological (3 hours).

Education outcomes in the discipline				
code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE :				
W01	knows the possibilities of modern telemedicine as a tool to support the work of a physician;	++	B.W33.	
W02	knows and understand the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most frequent internal diseases occurring in adults and their complications: a) cardiovascular diseases, including coronary heart disease, heart defects, endocarditis , myocarditis, pericarditis, heart failure (acute and chronic), arterial and venous diseases, primary and secondary hypertension, pulmonary hypertension; b) respiratory diseases, including diseases of the respiratory tract, chronic obstructive pulmonary disease, bronchial asthma, bronchiectasis, cystic fibrosis, respiratory infections, interstitial lung disease, pleura, mediastinum, obstructive and central sleep apnea, respiratory failure (acute and chronic), respiratory cancers, c) gastrointestinal diseases, including diseases of	+	E.W7.	

	<p>oral cavity, esophagus, stomach and duodenum, intestine, pancreas, liver, biliary tract and gall bladder;</p> <p>d) endocrine diseases, including diseases of the hypothalamus and pituitary, thyroid, parathyroid, cortex and adrenal medulla, ovaries and testes as well as neuroendocrine tumors polyglandular syndromes, different types of diabetes and metabolic syndrome: hypoglycemia, obesity, dyslipidemia;</p> <p>e), diseases of kidney and urinary tract, including acute and chronic renal failure, renal glomeruli diseases, cystic kidney disease, kidney stones, urinary tract infections, urinary tract tumor, particularly bladder cancer and kidney cancer;</p> <p>f) hematological diseases, including bone marrow aplasia, anemia, neutropenia and agranulocytosis, thrombocytopenia, acute leukemia, myeloproliferative neoplasms and myelodysplastic -myeloproliferative disorders, myelodysplastic syndromes, cancer of mature B and T lymphocytes, bleeding disorders, thrombophilia, states of a direct threat to life in hematology, blood disorders, diseases of other organs;</p> <p>g) rheumatic diseases, including systemic connective tissue disease, systemic vasculitis, inflammation of joints involving the spine, metabolic bone diseases, especially osteoporosis and degenerative diseases of the joints, gout;</p> <p>h) allergic diseases, including: anaphylaxis and anaphylactic shock and angioedema;</p> <p>i) water-electrolyte abnormalities and acid-base disorders: states of dehydration or fluid overload, electrolyte disorders, acidosis and alkalosis;</p>			
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within the scope of **SKILLS**:

U01	<p>performs basic medical procedures and treatments, including:</p> <p>a) measurement of body temperature, pulse measurement, non-invasive blood pressure measurement,</p> <p>b) monitoring of vital signs using a cardio-monitor or pulse oximetry,</p> <p>c) spirometry, oxygen therapy, assisted and control mode ventilation</p> <p>d) introduction of the oropharyngeal tube,</p> <p>e) intravenous injection , intramuscular and subcutaneous injections, cannulation of peripheral veins, collection of peripheral venous blood, collection of arterial blood, collection arterialized capillary blood,</p> <p>f) collecting swabs from the nose, throat and skin, puncture of pleural cavity,</p> <p>g) catheterization of the urinary bladder in women and me, nasogastric intubation, gastric lavage, enema,</p> <p>h) standard electrocardiogram along with its interpretation, cardioversion and defibrillation of the heart,</p> <p>i) simple test strips and measuring the concentration of glucose in the blood;</p>	++	E.U29.	
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4.3. Criteria for evaluation of obtained education outcomes				
Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lecture				
70% of correct test answers	71 - 79% of correct test answers	80% - 89% of correct test answers	90 % -95% of correct test answers	96% - 100% of correct test answers

4.4. Evaluation methods							
Oral examination	Written examination (credit with grade)	Project	Colloquium	Homework	Presentation Reports	Discussions	Other
	X						Practical task: performance of ECG recording and interpretation of 10 ECG recordings

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-Fa	
Name of discipline	Polish	Farmakoeconomika
	English	Pharmacoeconomics

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	Dr hab. n. med. Ewa Orlewska, prof UJK
1.8. Person responsible for the discipline	Dr hab. n. med. Ewa Orlewska, prof UJK
1.9. Person conducting the discipline	Dr hab. n. med. Ewa Orlewska, prof UJK
1.10. Contact	ewa.orlewska@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	Pharmacology and clinical toxicology, statistics

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lectures: 15 hours, Classes – 20 hours
3.2. Way of conducting classes	Lectures – in didactic rooms of the UJK, Classes – in didactic rooms of the UJK, each student has an individual access to a computer
3.3. Way of obtaining credits for classes	Students who have ≥ 50 % absenteeism during mandatory classes (classes, lectures) will not obtain credit. The obtaining of credit for classes will consist in an independent performance by the student of a given task (assigned work in Excel spreadsheet or Revman software). Credit for discipline: oral credit; to the credit will be admitted students who have obtained credit for classes.
3.4. Didactic methods	Conversation lecture, discussion
3.5. List of literature	basic 1. Methods for the Economic Evaluation of Health Care Programmes (Oxford Medical Publications, 2015) by Michael F. Drummond et al. 4th ed 2. Decision modelling for health economic evaluation (Oxford medical publications 2006) by Andrew Briggs et al.
	supplementary Cost-effectiveness in health and medicine by (Oxford University Press 1996) Marthe R. Gold et al. 1st ed

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims

The aim of the discipline 'Pharmacoeconomics' is familiarizing students of the medical specialty with terminology of pharmacoeconomics, teaching the methods for evaluation the quality of life and usability of health states, conducting pharmacoeconomic analyses and interpretation of their results. Students should acquire the skill of solving decision-making problems based on the principles of evidence-based medicine and decision analysis.

4.2. Programme content

Lectures:

1. Pharmacoeconomics as a tool in making medical decisions (1 hour).
2. Causes of dynamic development of economic assessment of health programmes, factors responsible for an increase in costs of medical care (1 hour)
3. Basic definitions and methods of cost measurement in health care (2 hours)
4. Concept of health effect in pharmacological analysis: definitions, methods of measurement, sources of data (2 hours)
5. Main types of pharmacoeconomic analyses (1 hour).
6. Types of pharmacoeconomic investigations, definitions, general characteristics (2 hours.)
7. Study of the effectiveness of costs and usability of costs based on selected examples (1 hour.)
8. Study of the costs of disease based on selected examples. (1 hour.)
9. Interpretation of results of pharmacoeconomic analysis (intercremental analysis break-even point of treatment) (1 hour)
10. Analysis of effect on budget – characteristics, methodology. (2 hours)
11. Guidelines for performance of economic analyses, importance of pharmacoeconomy in the cost-reimbursement systems in selected countries (1 hour.)

Classes (4 hours each)

1. Metaanalysis of data
2. Modelling – decision tree
3. Modelling – Markov model
4. Investigation of the usability of health states
5. Modelling – analysis of the effect on budget.

Education outcomes in the discipline				
Code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE:				
W01	knows the foundations of evidence-based medicine	+	D.W20.	
W02	knows and understands the basic principles of pharmacotherapy of diseases of the elderly;	+	E.W10.	
W03	knows and understand the causes, symptoms, principles of diagnosis and therapeutic management of the most common hereditary diseases;	+	E.W35.	
W04	lists indications for the implementation of monitoring therapy;	+	E.W40.	
W05	defines basic pharmacoeconomic concepts.	++	E.W41.	
within the scope of SKILLS:				
U01	selects the treatment which minimizes the social consequences for the patient;	+	D.U3.	
U02	critically examines medical literature, including medical literature in English, and draws conclusions based on the available literature;	+	D.U17.	
U03	plans diagnostic, therapeutic and preventive procedures;	+	E.U16.	

U04	proposes individualization of existing guidelines and other therapeutic treatments in the case of non-effectiveness of or contraindications to standard therapy;	+	E.U18.	
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4.3. Criteria for evaluation of obtained education outcomes							
Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5			
Lectures							
Learning programme content on the basic level, replies chaotic, leading questions necessary.	Learning programme content on the basic level, answers systematized, requires assistance from the teacher.	Learning programme content on the basic level, answers systematized, independent. Solving of problems in typical situations.	The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations	The scope of presented knowledge exceeds the basic level based on independently acquired scientific sources of information.			
from 50%	from 62.5%	from 75%	from 82.5%	from 90%			
<p>Criteria for evaluation of oral answer:</p> <ol style="list-style-type: none"> 1. Provision of a comprehensive answer to the problem (task) 2. Skill of integration of knowledge from allied domains (disciplines) 3. Independence and/or creativity in the presentation of the scope of problems, proposals of solutions 4. Presentation of the current knowledge related with the discipline (domain) 5. Recognition of problems resulting from the task <p>Criteria for evaluation of written answer</p> <ol style="list-style-type: none"> 1. Compliance with the essence of the subject matter of work (task) 2. Provision of a comprehensive answer to the problem (task) 3. Skill of integration of knowledge from allied domains (disciplines) 4. Independence and/or creativity in the presentation of the scope of problems 5. Presentation of the current knowledge related with the discipline (domain), pertinent selection of literature 							
4.4. Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussion	Other
						X	

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Udział w zajęciach dydaktycznych określonych w planie studiów (godz. kontaktowe)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	

Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-Far	
Name of discipline	Polish	Farmakogenetyka
	English	Pharmacogenetics

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	Dr hab. n. med. Ewa Orlewska, prof UJK
1.8. Person responsible for the discipline	Dr hab. n. med. Ewa Orlewska, prof UJK
1.9. Person conducting the discipline	Dr hab. n. med. Ewa Orlewska, prof UJK
1.10. Contact	ewa.orlewska@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	Pharmacology and toxicology, genetics, biochemistry, physiology and pathophysiology

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lectures: 15 hours, Classes: 20 hours
3.2. Way of conducting classes	Lectures – in didactic rooms of the UJK
3.3. Way of obtaining credits for classes	Students who have $\geq 50\%$ absenteeism during lectures will not obtain credit. Written credit: single choice test, 20 questions
3.4. Didactic methods	Conversation lecture, discussion
3.5. List of literature	basic Pharmacogenomics, ISBN: 9780123919182.

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims

The aim of the discipline 'Pharmacogenetics' is familiarization of students from the specialty of medicine with terminology and history of pharmacogenetics, and genetic basis of human response to drugs, most important genetically conditioned diseases taking the course with a different reaction to drugs, and teaching the practical use of pharmacogenetics in clinical practice.

4.2. Programme content

Lectures:

1. Introduction into pharmacogenetics – definitions and their meaning (2 hours)
2. Genetic polymorphism in pharmacology (2 hours)
3. Undesirable effects and pharmacogenetics (2 hours)
4. Genetic polymorphism of receptors (2 hours.)
5. Drug metabolism and genetic diversity (2 hours)
6. Selected diseases and examples of changed body response to drugs (2 hours)
7. Practical use of pharmacogenetics in psychopharmacology (1 hour)
8. Genetic tests in pharmacogenetics (1 hour)
9. Ethical and economic issues (1 hour)

Education outcomes in the discipline

code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE :				
W01	knows the basic concepts of genetics;	+	C.W1.	
W02	knows the principles of inheritance, inheritance of quantitative traits, independent inheritance of traits and inheritance of extranuclear genetic information;	+	C.W5.	
W03	knows the factors affecting primary and secondary genetic balance of the population	+	C.W8.	
W04	knows the foundation for the diagnosis of gene and chromosome mutations responsible for hereditary and acquired diseases, including cancer;	+	C.W9.	
W05	knows genetic mechanisms, the acquisition of drug resistance by microorganisms and tumor cells;	+	C.W11.	
W06	understands the indications for genetic testing performed to ensure the individualization of pharmacotherapy;	++	C.W40.	
W07	knows the basic trends of therapy development, in particular the possibility of applying cell therapy, gene therapy as well as targeted therapy in specific diseases;	+	C.W41.	
W08	knows the most common symptoms of acute poisoning, including poisoning with alcohol, drugs and other psychoactive substances, heavy metals and selected classes of drugs;	+	C.W44.	
W09	knows the possibilities of modern cancer therapy (including multimodal therapy), the prospects for cell and gene therapies and their adverse effects;	++	E.W25.	
W10	knows and understand the causes, symptoms, principles of diagnosis and therapeutic management of the most common hereditary diseases;	+	E.W35.	
within the scope of SKILLS :				
U01	makes a decision on the need to perform cytogenetic and molecular tests;	++	C.U3.	
U02	selects drugs at appropriate doses for correcting the pathological phenomena in the body and in individual organs;	+	C.U14.	

4.3. Criteria for evaluation of obtained education outcomes				
Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lecture				
Learning programme content on the basic level, replies chaotic, leading questions necessary.	Learning programme content on the basic level, answers systematized, requires assistance from the teacher.	Learning programme content on the basic level, answers systematized, independent. Solving of problems in typical situations.	The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations	The scope of presented knowledge exceeds the basic level based on independently acquired scientific sources of information.
From 50%	From 62.5%	From 75%	From 82.5%	From 90%
<p>Criteria for evaluation of oral answer:</p> <ol style="list-style-type: none"> 1. Provision of a comprehensive answer to the problem (task) 2. Skill of integration of knowledge from allied domains (disciplines) 3. Independence and/or creativity in the presentation of the scope of problems, proposals of solutions 4. Presentation of the current knowledge related with the discipline (domain) 5. Recognition of problems resulting from the task <p>Criteria for evaluation of written answer</p> <ol style="list-style-type: none"> 1. Compliance with the essence of the subject matter of work (task) 2. Provision of a comprehensive answer to the problem (task) 3. Skill of integration of knowledge from allied domains (disciplines) 4. Independence and/or creativity in the presentation of the scope of problems 5. Presentation of the current knowledge related with the discipline (domain), pertinent selection of literature. 				

4.4. Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussions	Other
	X					X	

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-GDz	
Name of discipline	Polish	Gastroenterologia dziecięca
	English	Paediatric Gastroenterology

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	dr n. med. Przemysław Wolak
1.8. Person responsible for the discipline	dr n. med. Przemysław Wolak
1.9. Person conducting the discipline	dr n. med. Przemysław Wolak
1.10. Contact	wojteknie@poczta.onet.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	Essentials of paediatrics, surgery, internal diseases, infectious diseases

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lecture 15 hours, Classes 20 hours	
3.2. Way of conducting classes	Lecture: lecture-didactic rooms at the UJK, Classes – Department of Gastroenterology, Paediatric Surgery and Department of Imaging Diagnostics; Regional Specialist Children Hospital in Kielce	
3.3. Way of obtaining credits for classes	Lecture – with grade, Classes – with grade	
3.4. Didactic methods	Lecture: conversation, problem Activation methods: case study in natural conditions, didactic discussion with discussing clinical cases	
3.5. List of literature	basic	Pediatric Gastrointestinal and Liver Disease; Robert Wyllie Robert Wyllie Jeffrey S. Hyams, Elsevier 2015.
	supplementary	Pediatric Practice Gastroenterology; Warren P. Bishop McGraw-Hill Education / Medical 2010.

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims

1. Acquisition of knowledge and competences in diagnostics, diagnosis and treatment of gastrointestinal tract diseases in children
2. Familiarization with distinctiveness of gastrointestinal tract diseases in children
3. Familiarization with the specificity of work of a physician in paediatric wards.

4.2. Programme content

Lectures:

1. Symptomatology of gastrointestinal diseases in children (1 hour)
2. Esophageal diseases (gastroesophageal reflux disease, esophagitis, achalasia, hiatal hernia, motility disorders, nanometric examinations - indications) (2 hours)
3. Gastric diseases (gastric emptying disorders, gastritis in children, Helicobacter pylori infection, peptic ulcer disease, stress induced gastric ulcer, effect of NSAIDs on gastric mucosa) (2 hours)
4. Diarrhea in children (etiologic factors of acute and chronic diarrhea, treatment of diarrhea (2 hours)
5. Etiopathogenesis of celiac disease, diagnostics and treatment (2 hours)
6. Non-specific inflammatory bowel diseases (ulcerative colitis, Leśniowski- Crohn's disease, valid standards in the diagnostics and treatment of non-specific inflammatory bowel disease in children) (2 hours)
7. pancreatic diseases in children - etiology, diagnostics and treatment of acute and chronic pancreatitis in children (2 hours)
8. Functional disorders of the gastrointestinal tract in children - etiology, diagnostics, differentiation, treatment (2 hours).

Classes:

1. Ultrasound diagnostics of gastrointestinal diseases in children (2 hours)
2. Jaundice during the neonatal-infancy period (1hour)
3. Cholecystolithiasis in children (symptoms, diagnostics, indications for treatment) (1hour)
4. Food allergy in children (1hour)
5. Elimination diets for food allergies (1hour)
6. Bleedings and haemorrhages from the upper section of gastrointestinal tract (1hour)
7. Bleedings and haemorrhages from the lower section of gastrointestinal (1hour)
8. Selected problems of hepatology (1hour)
9. Irritable bowel syndrome – diagnostics and treatment (1hour)
10. Constipation and defecation disorders, dysganglionosis, dirty underwear – etiology, management and treatment (2 hours)
11. Enteral and parenteral nutrition therapy (1hour)
12. Anatomical defects of intestines, bowel obstruction – indications for surgical consultation and surgical treatment - 2 hours.

Education outcomes in the discipline				
Code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE :				
W01	knows environmental and epidemiological conditions for the most common diseases;	++	E.W1.	

W02	knows and understand the causes, symptoms, principles of diagnosis and therapeutic procedures in the case of the most frequent diseases of children: a) acute and chronic abdominal pain, vomiting, diarrhea, constipation, gastrointestinal bleeding, peptic ulcer, nonspecific intestinal diseases, pancreatic diseases, cholestasis, liver disease, and other acquired diseases and congenital defects of the gastrointestinal tract, b) genetic syndromes,	++	E.W3.	
W03	knows eligibility rules as well as basic and most common complications of surgery and other invasive diagnostic and treatment procedures;	+	F.W3.	
W04	knows perioperative safety rules, preparing a patient for surgery, general and local anesthesia and controlled sedation;	+	F.W4.	
within the scope of SKILLS:				
U01	assists during a typical surgery, prepares the surgical site and locally anesthetizes operated area;	+	F.U1.	

4.3. Criteria for evaluation of obtained education outcomes				
Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lectures				
Student's knowledge on a basic level, lack of independently expressed answer, uncertain answers, requires additional questions	Student's knowledge on a basic level, engagement during classes; however, answers poorly systematized, requires assistance from the teacher conducting classes	Scope of student's knowledge satisfactory, correctly draws conclusions and undertakes adequate therapeutic actions in typical situations	Scope of student's knowledge mediocre, knowledge well-established, independently in a logical way, performs physical examinations and medical history taking	Student's scope of knowledge exceeds the programme requirements, the student expands knowledge using the relevant literature available, tries to independently solve clinical problems by conducting differential diagnosis
Classes/practical classes/laboratory				
from 50%	from 62.5%	from 75%	from 82.5%	from 90%
Practical classes				
from 50%	from 62.5%	from 75%	from 82.5 %	from 90%

4.4. Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussions	Other
x			x			x	

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
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Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-GwO	
Name of discipline	Polish	Genetyka w onkologii
	English	Genetics in oncology

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences, Kielce Region Oncology Centre
1.7. Person preparing course description chart	dr hab. Pałyga Jan., prof. UJK
1.8. Person responsible for the discipline	dr hab. Pałyga Jan, prof. UJK
1.9. Person conducting the discipline	dr hab. Pałyga Jan, prof. UJK
1.10. Contact	stanislawgo@onkol.kielce.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	Genetics

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lecture: 15 hours, Classes 20 hours	
3.2. Way of conducting classes	Lecture – Classes in didactic rooms of the UJK, Kielce Region Cancer Centre	
3.3. Way of obtaining credits for classes	Lecture – with grade	
3.4. Didactic methods	conversation lecture	
3.5. List of literature	basic	Principles of Cancer Genetics, 2016, ISBN: 9789401774826
	supplementary	Cancer Genetics, ISBN: 9781441960320

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims

- C1 Obtaining knowledge of the mechanism of inheritance of cancerous diseases
 C2 Obtaining knowledge of the principles of genetic counselling
 C3 Shaping proper attitudes of physicians towards patients using genetic counselling

4.2. Programme content

Lectures

- 1) Clinical genetics of breast and ovarian cancer (BRCA1 test) (2 hours)
- 2) Hereditary colorectal cancer predisposition syndromes (2 hours)
- 3) Clinical genetics of medullary thyroid carcinoma (MEN 2) (2 hours)
- 4) Retinoblastoma – model cancer on the genetic background (2 hours)
- 5) 5. Neurofibromatosis (NF1,NF2) (2 hours)
- 6) Clinical genetics of melanoma, prostate cancer, gastric cancer (2 hours)
- 7) DNA tests for moderate increased risk of malignant cancer (2 hours)
- 8) Credit (1 hour)

Education outcomes in the discipline				
code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE:				
W01	knows the foundation for the diagnosis of gene and chromosome mutations responsible for hereditary and acquired diseases, including cancer;	+	C.W9.	
W02	knows the basic trends of therapy development, in particular the possibility of applying cell therapy, gene therapy as well as targeted therapy in specific diseases;	+	C.W41.	
W03	knows the basis of early detection of cancer and principles of screening in oncology;	+	E.W24.	
W04	knows the possibilities of modern cancer therapy (including multimodal therapy), the prospects for cell and gene therapies and their adverse effects;	+	E.W25.	
W05	knows and understand the causes, symptoms, principles of diagnosis and therapeutic management of the most common hereditary diseases;	+	E.W35.	
within the scope of SKILLS:				
U01	analyses genetic crossing over, pedigree qualities and human diseases as well as the estimated risk of having a child with chromosomal aberrations;	+	C.U1.	
U02	makes a decision on the need to perform cytogenetic and molecular tests;	+	C.U3.	
U03	makes morphometric measurements, analyzes the developmental profile and records the diseases' karyotypes;	+	C.U4.	
U04	assesses the risk of disclosure of a particular disease in the offspring based on family predisposition and the influence of environmental factors;	+	C.U5.	

4.3. Criteria for evaluation of obtained education outcomes				
Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lecture				
Learning programme content on the basic level, replies chaotic, leading questions necessary.	Learning programme content on the basic level, answers systematized, requires assistance from the teacher.	Learning programme content on the basic level, answers systematized, independent. Solving of problems in typical situations.	The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations	The scope of presented knowledge exceeds the basic level based on independently acquired scientific sources of information.
Principles of form of obtaining credit. The basis of obtaining credit is colloquium organized on the last day of classes. Colloquium is in the form of a test. The precondition for admission to the colloquium is presence during lectures. In the case of one unjustified absence the credit is possible based on a presentation or conversation with the person conducting the classes.				
4.4. Evaluation methods				

Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussions	Other
			X				

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time studies
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-Hi	
Name of discipline	Polish	Hipertensjologia
	English	Hypertensiologia

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	I Cardiology Clinic, Kielce Region Cardiology Centre, Faculty of Medicine and Health Sciences, UJK
1.7. Person preparing course description chart	prof. dr hab. n.med. B. Woźakowska-Kapłon
1.8. Person responsible for the discipline	prof. dr hab. n.med. B. Woźakowska-Kapłon
1.9. Person conducting the discipline	prof. dr hab. n.med. B. Woźakowska-Kapłon
1.10. Contact	bw.kaplon@poczta.onet.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	Anatomy, physiology, pathophysiology

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lecture: 15 hours, Classes – 20 hours	
3.2. Way of conducting classes	Lecture – in didactic rooms of the UJK Classes - I Cardiology Clinic, Kielce Region Cardiology Centre	
3.3. Way of obtaining credits for classes	Lecture - presence, Classes – with grade	
3.4. Didactic methods	conversation lecture, discussion, case study in natural conditions	
3.5. List of literature	basic	1. CURRENT Diagnosis And Treatment Nephrology And Hypertension, ISBN: 9780071447874 2. Manual of Hypertension, ISBN: 9789352500307
	supplementary	1. ABC of Hypertension, ISBN: 9780470659625 2. Pediatric Hypertension, ISBN: 9781603278232

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims

C1 obtaining knowledge concerning pathogenesis of arterial hypertension
C2 preparation for diagnostics of arterial hypertension
C3 shaping skills of individualization of arterial hypertension therapy.

4.2. Programme content

Lectures:

- 1) Epidemiology of individualization of arterial hypertension (1hour)
- 2) Pathogenesis of arterial hypertension (2 hours)
- 3) Secondary arterial hypertension – discussion of endocrinological causes (2 hours)
- 4) Secondary arterial hypertension – Discussion of nephrological causes (2 hours).
- 5) Diagnostics of arterial hypertension (2 hours)
- 6) Principles of non-pharmacological treatment of arterial hypertension (2 hours)
- 7) Principles of pharmacotherapy of arterial hypertension. (3hours)
- 8) Surgical treatment of arterial hypertension (1hour)

Classes - individualized treatment of arterial hypertension:

- 1) Patient with arterial hypertension and diabetes (1hour)
- 2) Patient with arterial hypertension and heart failure (1hour)
- 3) Patient with arterial hypertension and glaucoma (1hour)
- 4) Patient with arterial hypertension and prostatic hyperplasia (1hour)
- 5) Patient with arterial hypertension and ischemic heart disease (1hour)
- 6) Patient with arterial hypertension who had undergone myocardial infarction (1hour)
- 7) Patient with arterial hypertension at an old age (1hour)
- 8) Patient with arterial hypertension who had undergone cerebral stroke (1hour)
- 9) Patient with arterial hypertension during peri-operative period (1hour)
- 10) Patient with arterial hypertension and atrial flutter (1hour)
- 11) Patient with arterial hypertension in pregnancy (1hour)
- 12) States of emergency in arterial hypertension (1hour)
- 13) Patient with arterial hypertension and chronic renal disease (1hour)
- 14) Arterial hypertension in children (1hour)
- 15) Summing-up. Credit (1hour)

Education outcomes in the discipline				
code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE :				
W01	knows environmental and epidemiological conditions for the most common diseases;	++	E.W1.	
W02	knows and understand the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most frequent internal diseases occurring in adults and their complications: a) cardiovascular diseases, including coronary heart disease, heart defects, endocarditis , myocarditis, pericarditis, heart failure (acute and chronic), arterial and venous diseases, primary and secondary hypertension, pulmonary hypertension;	+	E.W7.	
within the scope of SKILLS :				
U01	conducts a review of medical history of the adult patient;	+	E.U1.	
U02	conducts full and targeted physical examination of the adult patient	+	E.U3.	
U03	plans diagnostic, therapeutic and preventive procedures;	+	E.U16.	
U04	conducts analysis of the potential side effects of each drug and the interaction between them;	+	E.U17.	
U05	qualifies the patient for home treatment and hospitalization	+	E.U20.	
U06	plans specialist consultations;	+	E.U32.	

4.3. Criteria for evaluation of obtained education outcomes

Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
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Lecture				
Learning programme content on the basic level, replies chaotic, leading questions necessary.	Learning programme content on the basic level, answers systematized, requires assistance from the teacher.	Learning programme content on the basic level, answers systematized, independent. Solving of problems in typical situations.	The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations	The scope of presented knowledge exceeds the basic level based on independently acquired scientific sources of information.

Classes				
from 50%	from 62.5%	from 75%	from 82.5%	from 90%

Criteria for evaluation of oral answer:

1. Provision of a comprehensive answer to the problem (task)
2. Skill of integration of knowledge from allied domains (disciplines)
3. Independence and/or creativity in the presentation of the scope of problems, proposals of solutions
4. Presentation of the current knowledge related with the discipline (domain)
5. Recognition of problems resulting from the task

Criteria for evaluation of written answer

1. Compliance with the essence of the subject matter of work (task)
2. Provision of a comprehensive answer to the problem (task)
3. Skill of integration of knowledge from allied domains (disciplines)
4. Independence and/or creativity in the presentation of the scope of problems
5. Presentation of the current knowledge related with the discipline (domain), pertinent selection of literature

4.4. Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussions	Other
	x					x	

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15

Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-Ki	
Name of discipline	Polish	Kardiologia interwencyjna
	English	Interventional cardiology

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences
1.7. Person preparing course description chart	Prof. dr hab. n. med. Marianna Janion
1.8. Person responsible for the discipline	Prof. dr hab. n. med. Marianna Janion
1.9. Person conducting the discipline	Prof. dr hab. n. med. Marianna Janion
1.10. Contact	wnoz_ipp@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	Knowledge within the scope of modules: morphological sciences and scientific essentials of medicine

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lectures, Classes	
3.2. Way of conducting classes	Lectures – didactic rooms of the UJK Classes – Cardiology Clinic	
3.3. Way of obtaining credits for classes	Lectures – credit with grade Classes – credit with grade	
3.4. Didactic methods	conversation lecture, discussion, case study in natural conditions	
3.5. List of literature	basic	1. Braunwald's Heart Disease Review and Assessment, ISBN: 9780323341349; 2. Cardiac Catheterization Handbook, ISBN: 9780323340397; 3. Textbook of Interventional Cardiology, ISBN: 9780323340380.
	supplementary	1. Park's Pediatric Cardiology for Practitioners, ISBN: 9780323169516; 2. Oxford Handbook of Cardiology, ISBN: 9780199643219.

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims

Acquisition of knowledge within the scope of interventional cardiology

4.2. Programme content**Lectures -15 hours**

1. Studies in interventional cardiology: coronarography, intravascular ultrasound, measurement of fractional flow reserve, computed tomography (3 hours)
2. Coronary angioplasty in stable coronary disease and acute coronary syndromes (3 hours)
3. Interventional treatment of heart defects and defects of large vessels of the chest in adults (3 hours)
4. Interventional procedures within the region of the heart and large vessels: carotid artery angioplasty, aortic arch angioplasty, obliteration of the left atrial appendage, atrial septostomy, ablation, placement of venous filters. Intra-aortic balloon pump (3 hours)
5. Interventional procedures complications – prevention and management. New technologies in interventional cardiology (3 hours)

Classes - 20 hours

1. Organization of work in the laboratory for interventional cardiology. Equipment and appliances used in interventional cardiology. Protection against radiation. Indications and contraindications for interventional cardiology procedures. (3 hours)
2. Preparation of a patient for coronography and coronary angioplasty. Evaluation of coronographic examination. Technique of performing the procedure. Management in acute coronary syndromes. Assessment of the grade of coronary blood flow TIMI. Angiographic assessment of perfusion of coronary microcirculation MBG (3 hours)
3. Indications for interventional cardiology procedures. Techniques of performing the procedures. Evaluation of outcomes. Possible complications. Performance of procedures in the states of emergency (6 hours).
4. Hybrid procedures. Artificial left ventricle. Miniaturisation of devices. Struggle with immunological barrier (3 hours)

Education outcomes in the discipline				
code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE :				
W01	knows eligibility rules as well as basic and most common complications of surgery and other invasive diagnostic and treatment procedures;	+	F.W3.	
W02	knows perioperative safety rules, preparing a patient for surgery, general and local anesthesia and controlled sedation;	+	F.W4.	
W03	knows postoperative treatment and analgesic therapy as well as post-operative monitoring;	+	F.W5.	
within the scope of SKILLS :				
U01	assists during a typical surgery, prepares the surgical site and locally anesthetizes operated area;	+	F.U1.	

4.3. Criteria for evaluation of obtained education outcomes

Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lecture				

70% of correct test answers	71 - 79% of correct test answers	80% - 89% of correct test answers	90% - 95% of correct test answers	96% - 100% of correct test answers
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4.4. Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussions	Other
	x						

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-PP	
Name of discipline	Polish	Problemy płodności
	English	Fertility problems

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	prof. dr hab. n. med. Bogdan Chazan
1.8. Person responsible for the discipline	prof. dr hab. n. med. Bogdan Chazan
1.9. Person conducting the discipline	prof. dr hab. n. med. Bogdan Chazan
1.10. Contact	b.chazan@wp.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	Anatomy, physiology

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lectures: 15 hours, Classes: 20 hours	
3.2. Way of conducting classes	In didactic rooms of the UJK	
3.3. Way of obtaining credits for classes	Credit with grade	
3.4. Didactic methods	Classes in the form of seminars during subsequent weeks. Each seminar is divided into the lecture and class parts. The use of multimedia presentations, films and menstrual cycle observation charts. Discussion.	
3.5. List of literature	basic	1. Sexual and Reproductive Health at a Glance, ISBN: 9781118460726 2. Ultrasonography in Reproductive Medicine and Infertility
	supplementary	1. Oxford Handbook of Reproductive Medicine and Family Planning, ISBN: 9780199203802 2. Textbook of Human Reproductive Genetics, ISBN: 9781107683587

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims
<ol style="list-style-type: none"> 1. Acquisition of knowledge concerning the physiology of the reproductive cycle in females, scientific basis of various bio-indicators of the menstrual cycle, methods of their observation, contemporary methods for recognizing fertility (Fertility Awareness Methods - FAM) and their effectiveness, and possibilities of use in family planning. 2. Preparation for independent use of FAM in the diagnostics of menstrual cycle abnormalities. 3. Acquisition of knowledge concerning artificial family planning methods, the mechanism of their effects, advantages and adverse effects. 4. Recognition of ethical, medical, social, and cultural conditioning of the selection of family planning methods. 5. Acquisition of knowledge concerning a negative effect of an inappropriate life style, risky behaviours, inadequate nutrition, and drugs on fertility, facilitating the understanding of the need for care of fertility and recognition of the causes of infertility. 6. Preparation for management in the area of prophylaxis of infertility, recognition of its causes and causative treatment.

7. Understanding of the mechanisms responsible for fertility in various periods of life, during puberty, sexual maturity, lactation and perimenopausal period.
8. Familiarization with elements of preconception care, and care of reproductive health.
9. Acquisition of knowledge concerning assisted reproduction techniques, its methods, effectiveness, effect on health of the mother and baby, ethical and medical aspects.
10. Obtaining basic knowledge in the field of demography.
11. Acquisition of skills of conducting counselling in the field of prevention of infertility, diagnosing and treatment of infertility, and family planning considering patients' expectations, enabling the gaining of trust and make full contact, full of respect and understanding.
12. Acquisition of skills of motivating patients for health promoting behaviours and concern about reproductive health.

4.2. Programme content

1. Anatomy of males and female reproductive organs. Hormonal regulation of menstrual cycle. Phases of the cycle, indicators of fertility during woman's menstrual cycle.
2. History of the method of recognizing fertility. Methods of recognizing fertility worldwide and in Poland. Recommendations by the World Health Organization.
3. A review of methods for recognizing fertility and their effectiveness. Single indicator methods, accurate thermal, Billings ovulation, Creighton Model Fertility Care, and multi-indicator methods: expanded thermal, symptomatic-thermal.
4. English method of double checking. The Creighton Model. Rules of interpretation of the symptoms of fertility. Interpretations of typical menstrual cycle charts.
5. Advantages and difficulties with application, effectiveness of the methods of recognizing fertility. Usefulness of observation in the diagnostics of menstrual cycle disorders.
6. Artificial family planning methods. Contraception – types, mechanisms of effect, effectiveness, side effects, complications. Interpretation of fertility indicators after discontinuation of hormonal contraceptives.
7. Infertility. Prophylaxis, diagnosing and treatment of causes. Conducting infertility counselling. Usefulness of methods of diagnosing fertility in the situation of problems with conception.
8. Use of methods of diagnosing fertility in preconception care. Breastfeeding. Absence of menstrual periods as a result of breastfeeding. Interpretation of menstrual cycle charts after childbirth.
9. Diet and fertility. Fertility in individual periods of life of man and woman. Interpretation of cycles during the periods of puberty and pre-menopause.
10. Assisted reproduction methods. Obtaining credits.

Education outcomes in the discipline				
code	Student who obtained credit	Degree of saturation of outcome in discipline ¹ [+] [++] [+++]	Reference to education outcome	
			for discipline	for area/standard
SEMESTER II				
within the scope of KNOWLEDGE:				
W01	knows the reproductive function in women and men;	++	B. W27	
W02	knows female reproductive functions, disorders associated with them as well as diagnostic and therapeutic procedures concerning in particular: a) the menstrual cycle and its disorders, b) pregnancy, c) physiological and pathological childbirth and postpartum, d) inflammations and tumors in the genital organs, e) birth control, f) menopause, g) basic methods of diagnostics and gynecological procedures;	++	F. W9	
within the scope of SKILLS:				

U01	makes recommendations, indications and contraindications for the use of contraceptive methods;	++	F. U18	
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4.3. Criteria for evaluation of obtained education outcomes				
Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lectures				
Acquired knowledge concerning the basic programme content. Incoherent answers, poor knowledge of details	Acquired knowledge concerning the basic programme content. Requires guidance by the teacher.	Well-acquired basic knowledge. Independent answers within the scope of this knowledge. Gaps occur in detailed knowledge	The scope of knowledge covers problems exceeding the basic programme content. Skills of independent thinking and solving complex problems.	Well-acquired contemporary knowledge based on many sources. Independent way of drawing conclusions. Skills of defending own point of view.
classes/practical classes/laboratory				
from 50%	from 62.5%	from 75%	from 82.5%	from 90%

4.4. Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussions	Other
	X					X	

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	5
Preparation for classes, discussion sessions, laboratory, etc.	5
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-P	
Name of discipline	Polish	Pulmonologia
	English	Pulmonology

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	dr n. med. Małgorzata Czarny-Działak
1.8. Person responsible for the discipline	dr n. med. Małgorzata Czarny-Działak
1.9. Person conducting the discipline	dr n. med. Małgorzata Czarny-Działak
1.10. Contact	drmczarny@interia.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	basic knowledge in the field of anatomy and physiology of the respiratory system

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lectures: 15 hours Classes: 20 hours	
3.2. Way of conducting classes	Lectures – in didactic rooms of the UJK Classes – Department of Lung Diseases Regional Hospital Complex, Czerwona Góra near Kielce	
3.3. Way of obtaining credits for classes		
3.4. Didactic methods	Conversation lecture, discussion, case study in natural conditions	
3.5. List of literature	basic	Principles of pulmonary medicine (Weinberger),
	supplementary	Pulmonary and critical care medicine (Harrison).

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims

C1 obtaining knowledge concerning the specificity of pulmonary disorders in all age groups
C2 preparation for classes in conditions of pulmonology ward, skills of diagnosing lung diseases
C3 shaping physician's proper attitude towards patients with pulmonary diseases.

4.2. Programme content

Lectures:

1. Structure and function of the respiratory system, congenital defects of the respiratory system (1 h)
2. History of pulmonology in Poland and worldwide (0.5h)
3. Epidemiology of respiratory system diseases (0.5h)
4. Bronchial asthma – symptoms, diagnostics, treatment. Asthmatic state – therapeutic management (2h)
5. COPD – diagnosis, treatment, management during aggravations. Respiratory system diseases and rehabilitation (2h)
6. Pneumonia – classification of pneumonia, diagnostics and treatment. Principles of antibiotic therapy (2h)
7. Interstitial lung diseases: sarcoidosis, idiopathic interstitial pneumonia (1h)
8. Respiratory failure – acute and chronic – therapeutic management. Oxygen therapy (1h)
9. Pleural diseases – diagnostics and therapeutic management. Chemical pleurodesis (1h)

10. Lung cancer – classification, diagnosis and treatment (1h)
 11. Pulmonary tuberculosis and mycobacterial lung infections – epidemiology, diagnosis and treatment – antimycobacterial drugs (2h)
 12. Pulmonary embolism – diagnostics and treatment (1h)
Classes:
 1. Symptomatology of respiratory system diseases 3h
 2. Imaging diagnostics of respiratory system diseases 3h
 3. Functional examinations of respiratory system diseases – spirometry, PEF measurement, bronchial hyperresponsiveness test, stress tests, measurement of nitric oxide concentration in exhaled air 3h
 4. Endoscopic examinations of the respiratory system – indications and contraindications, technique of examination, preparation of patient for examination 2h
 5. Radioisotopic examinations in diagnostics of pulmonary and mediastinal diseases 2h
 6. Credit 2h

Education outcomes in the discipline				
code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE:				
W01	knows environmental and epidemiological conditions for the most common diseases;	++	E.W1.	
W02	knows and understand the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most frequent internal diseases occurring in adults and their complications: b) respiratory diseases, including diseases of the respiratory tract, chronic obstructive pulmonary disease, bronchial asthma, bronchiectasis, cystic fibrosis, respiratory infections, interstitial lung disease, pleura, mediastinum, obstructive and central sleep apnea, respiratory failure (acute and chronic), respiratory cancers,	+	E.W7.	
within the scope of SKILLS:				
U01	analyses defensive and adaptation reactions as well as regulation disorders caused by the etiological factor;	+	C.U12.	
U02	conducts a review of medical history of the adult patient;	+	E.U1.	
U03	conducts a review of medical history of the child and its family;	+	E.U2.	
U04	conducts full and targeted physical examination of the adult patient;	+	E.U3.	
U05	assesses and describes the somatic and mental state of patients;	+	E.U13.	
U06	interprets laboratory tests/results and identifies the reasons for deviations;	+	E.U24.	
U07	assists when the following procedures and medical treatments are performed: a) transfusions of blood and blood products, b) drainage of the pleural cavity,	+	E.U30.	

4.3. Criteria for evaluation of obtained education outcomes				
Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lecture				

Learning programme content on the basic level, replies chaotic, leading questions necessary.	Learning programme content on the basic level, answers systematized, requires assistance from the teacher.	Learning programme content on the basic level, answers systematized, independent. Solving of problems in typical situations.	The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations	The scope of presented knowledge exceeds the basic level based on independently acquired scientific sources of information.
classes/practical classes/laboratory				
from 50%	from 62.5%	from 75%	from 82.5%	from 90%

Criteria for evaluation of oral answer:

1. Provision of a comprehensive answer to the problem (task)
2. Skill of integration of knowledge from allied domains (disciplines)
3. Independence and/or creativity in the presentation of the scope of problems, proposals of solutions
4. Presentation of the current knowledge related with the discipline (domain)
5. Recognition of problems resulting from the task

Criteria for evaluation of written answer

1. Compliance with the essence of the subject matter of work (task)
2. Provision of a comprehensive answer to the problem (task)
3. Skill of integration of knowledge from allied domains (disciplines)
4. Independence and/or creativity in the presentation of the scope of problems
5. Presentation of the current knowledge related with the discipline (domain), pertinent selection of literature

4.4. Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussions	Other
			X				

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-RwP	
Name of discipline	Polish	Radiologia w pediatrii
	English	PEDIATRIC RADIOLOGY

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	dr n. med. Michał Spalek
1.8. Person responsible for the discipline	dr n. med. Michał Spalek
1.9. Person conducting the discipline	dr n. med. Michał Spalek
1.10. Contact	michal_spa@op.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	6-9 semesters of study
2.5. Preliminary requirements	knowledge within the scope of anatomy, biophysics, and radiology

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lectures: 15 hours, Classes: 20 hours	
3.2. Way of conducting classes	Lectures – in didactic rooms of the UJK Classes - in didactic rooms of the UJK, and Kielce Region Cancer Centre	
3.3. Way of obtaining credits for classes	Lectures: credit with grade; Classes – credit with grade	
3.4. Didactic methods	Lecture – information lecture with oral imparting of knowledge and use of visual means Classes – conversation lectures, discussion related with the lecture, presentation with description, case analysis	
3.5. List of literature	basic	Pediatric Imaging, ISBN: 9781451193176
	supplementary	Valid legal acts in the scope of radiotherapy

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims	
C1 – Familiarisation with modern techniques of imaging diagnostics used in paediatrics.	
C2 – Familiarisation with diagnostic imaging algorithms in paediatrics.	
C3 – Preparation for using appropriate imaging techniques in paediatric diagnostics.	
C4 – Familiarisation with the principles of appropriate preparation of patients for particular imaging tests in paediatrics.	
C5 – Familiarisation with safety principles while performing various imaging diagnostics procedures in paediatrics.	

4.2. Programme content

Lectures

- Ultrasound in paediatrics.
Physical and technical essentials. Doppler ultrasound, Contrast media. Preparation of the patient for USG examinations.
- Paediatric rentgenodiagnostics
Physical and technical essentials. Contrast media. Imaging systems in rentgenodiagnostics. Conventional X-rays photographs. Digital radiology. X-ray. Radiological functional examinations. Possibilities and limitations of individual methods. Preparation of patient for individual radiological examinations.
- Computed tomography in paediatric diagnostics
Physical and technical essentials. Contrast media. Possibilities and limitations of the method. Preparation of patient for computed tomography examinations.
- Magnetic resonance in paediatric diagnostics
Physical and technical essentials. Contrast media. Possibilities and limitations of the method. Preparation of patient for magnetic resonance
- Basic problems within the scope of radiological protection.
Types of ionizing radiation. Immediate and distant somatic effects of radiation. Dose limits for occupational exposure, types of doses control. Methods of protection of patient against an excessive exposure.

Classes

- Ultrasound in paediatrics - possibilities and limitations of the method.
- Paediatric rentgenodiagnostics - possibilities and limitations of the method.
- Computed tomography in paediatric diagnostics - possibilities and limitations of the method.
- Magnetic resonance in paediatric diagnostics - possibilities and limitations of the method.

Education outcomes in the discipline				
code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE :				
W01	knows human anatomy topographically (upper and lower limb, chest, abdomen, pelvis, back, neck and head) and functionally (respiratory system, digestive system, urogenital system, nervous system and sense organs, integumentary system);	+	A.W2.	
W02	knows the physical basis of non-invasive imaging methods;	+	B.W8.	
W03	knows and understand the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common diseases requiring surgical intervention, taking into account the individuality of childhood, in particular: a) acute and chronic diseases of the abdominal cavity, b) diseases of the chest, c) diseases of limbs and head, d) bone fractures and injuries of organs;	+	F.W1.	
W04	knows the issues concerning modern imaging tests, in particular: a) basic radiological symptomatology of diseases, b) instrumental methods and imaging techniques used to perform medical treatments, c) the indications, contraindications and preparation of patients to particular types of imaging tests and	++	F.W10.	

	contraindications the use of contrast agents;			
within the scope of SKILLS :				
U01	makes conclusions as to the relationship between anatomical structures on the basis of intravital diagnostic tests, in particular in the field of radiology (plain images, tests using contrast agents, CT scans and magnetic resonance imaging);	+	A.U4.	

4.3. Criteria for evaluation of obtained education outcomes				
Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lectures				
Acquired knowledge and skills mentioned in point 4.3 within the 'satisfactory' scope – obtaining 51- 60% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'satisfactory' obtaining 61-70% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the 'good' scope obtaining 71-80% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'good' obtaining 81-90% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope 'very good' obtaining more than 90% points for final credit
Classes				
Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'satisfactory' obtaining 61-70% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'satisfactory' obtaining 61-70% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the 'good' scope obtaining 71-80% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope higher than 'good' obtaining 81-90% points for final credit	Acquired knowledge and skills mentioned in point 4.3 within the scope 'very good' obtaining more than 90% points for final credit

4.3. Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussions	Other
						X * (classes)	X (lectures) - final credit from the thematic scope of lectures in a written or oral form X (classes) - final credit from the thematic scope of classes in a written or oral form

* points obtained during discussion are added to the points obtained for final credit

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

Discipline code	12.6-3LEK-F-R	
Name of discipline	Polish	Radioterapia
	English	Radiotherapy

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	dr n. med. Stanisław Gózdź
1.8. Person responsible for the discipline	dr n. med. Stanisław Gózdź
1.9. Person conducting the discipline	dr n. med. Stanisław Gózdź
1.10. Contact	stanislawgo@onkol.kielce.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	
2.5. Preliminary requirements	Oncology

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lectures – 15 hours, Classes 20 hours	
3.2. Way of conducting classes	Classes in didactic rooms of the UJK, Radiotherapy Clinic, Kielce Region Cancer Centre	
3.3. Way of obtaining credits for classes	lecture – with grades	
3.4. Didactic methods	Conversation lecture, multimedia presentation	
3.5. List of literature	basic	1 Perez and Brady- Principles and Practice of Radiation Oncology, Sixth Edition: Lippincott, Williams&Wilkins 2013. 2.Khan Faiz- Treatment Planning in Radiation Oncology, Second Edition: Lippincott, Williams&Wilkins 2007. 3.Lee N.,Lu J. (Editors)- Handbook of Evidence-based Radiation Oncology, Springer 2007.
	supplementary	1. Hansen E., Roach III M. (Editors)- Handbook of Evidence-based Radiation Oncology, Springer 2007. 2.Moeller T., Reif E.-Pocket Atlas of Sectional Anatomy, Thieme 2007. 3.Steel G.-Basic Clinical Radiobiology, Third Edition, Taylor&Francis 2002.

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims
C1 Obtaining knowledge of the possibilities of contemporary cancer therapy by the method of radiotherapy.
C2 Knowledge of adverse effects of radiotherapy
C3 Shaping proper attitude of physician with respect to patients covered with oncologic care

4.2. Programme content

Lectures

1. Introduction to radiotherapy. 2 hours.
2. Organization of work at the department of radiotherapy. Equipment used in radiotherapy (2 hours)
3. Types of radiotherapy. Planning of radiotherapy 2D, 3D in selected types of cancer (3 hours)
4. Planning of brachytherapy in selected types of cancer (3 hours)
5. Palliative radiotherapy (1hour)
6. Combined treatment of cancer (2 hours)
7. Prevention and alleviation of complications of radiotherapy and combined treatment (1hour)
7. Credit (1hour)

Education outcomes in the discipline				
code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE:				
W01	knows the physical principles of selected therapeutic techniques, including ultrasound and radiation;	+	B.W9.	
W02	knows the principles of combination therapies in oncology, algorithms for diagnostic and therapeutic procedures in most common human cancers;	+	E.W26.	
W03	knows and understand the causes, symptoms, principles of diagnosis and therapeutic management of the most common problems of palliative medicine, including: a) the symptomatic treatment of the most common somatic symptoms, b) the procedures applied in cancer cachexia syndrome and the prevention and treatment of bedsores, c) the most common emergencies in palliative medicine;	+	E.W27.	
W04	knows the rules of palliative procedures for the terminally ill patients;	+	E.W28.	
W05	knows the principles concerning the treatment of pain, including cancer and chronic pain;	+	E.W29.	
W06	knows eligibility rules as well as basic and most common complications of surgery and other invasive diagnostic and treatment procedures;	+	F.W3.	
within the scope of SKILLS:				
U01	plans diagnostic, therapeutic and preventive procedures;	+	E.U16.	
U02	interprets laboratory tests/results and identifies the reasons for deviations;	+	E.U24.	
U03	plans specialist consultations;	+	E.U32.	

Criteria for evaluation of obtained education outcomes							
Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5			
Lecture							
Learning programme content on the basic level, replies chaotic, leading questions necessary.	Learning programme content on the basic level, answers systematized, requires assistance from the teacher.	Learning programme content on the basic level, answers systematized, independent. Solving of problems in typical situations.	The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations	The scope of presented knowledge exceeds the basic level based on independently acquired scientific sources of information.			
<p>principles and form of obtaining credits. A basis of obtaining credit is colloquium organized on the last day of classes. The colloquium is in the form of a written test. The precondition of admission to the colloquium is presence during lectures. In the case of excused absence – the duty to make up for the classes after previous agreement with the assistant professor conducting the classes.</p>							
Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussions	Other
			X				

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-S	
Name of discipline	Polish	Seksuologia
	English	Sexology

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences UJK
1.7. Person preparing course description chart	Dr hab. n. med., prof. UJK Wojciech Rokita
1.8. Person responsible for the discipline	Dr hab. n. med., prof. UJK Wojciech Rokita Dr n. med. Piotr Niziurski Dr n. med. Wojciech Piwoński Dr n. med. Olga Adamczyk-Gruszka
1.9. Person conducting the discipline	Dr hab. n. med., prof. UJK Wojciech Rokita
1.10. Contact	rokita@kielce.com.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	
2.5. Preliminary requirements	lack

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lectures : 15 hours Classes 20 hours	
3.2. Way of conducting classes	Lectures and classes	
3.3. Way of obtaining credits for classes		
3.4. Didactic methods: problem methods (<i>problem lecture, conversation lecture, classic problem method, activation method, case method, situational method, staging, didactic games: simulations, decision-making</i>) exposing methods (<i>film, animation</i>) practical methods (<i>display, practical classes</i>)	Lectures with multimedia presentation (W1): <ul style="list-style-type: none"> • information • problem Classes: <ul style="list-style-type: none"> • active participation in discussion case analysis • simulation of conversation with patient 	
3.5. List of literature	basic	The Illustrated Manual of Sex Therapy, ISBN: 9781138133853
	supplementary	Sexual Dysfunction, ISBN: 97807234326619

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims

The aim of classes is familiarisation of students with basic problems related with human sexology, including the biological essentials of sexuality, determinants of normal development, as well as psychological aspects of interpersonal attractiveness. During classes the students will be familiarised with knowledge concerning sexual dimorphism and psychological sexual disorders. The current state of knowledge will be presented concerning norms regarding sexuality, as well as stereotypes and prejudices related with human sexuality. A separate important element of the faculty is the presentation of problems related with sexual education of adolescents.

4.2. Programme content

Psychological determinants of health and disease. Psychological pathogenic mechanisms. Psychosomatic disorders. Psychological aspects of pain. Functioning of an ill person. Process of adaptation to the disease. Physician-patient relationships – difficulties with cooperation.

Education outcomes in the discipline				
code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcomes	
			for discipline	for area/standard
within the scope of KNOWLEDGE :				
W01	knows the problems of: child abuse and sexual abuse, mental retardation, behavioral disorders: psychosis, addiction, eating disorders, and excretion in children;	++	E.W4.	
W02	has the knowledge about human sexuality and fundamental disorders related thereto;	++	E.W21.	
W03	knows female reproductive functions, disorders associated with them as well as diagnostic and therapeutic procedures concerning in particular: a) the menstrual cycle and its disorders, b) pregnancy, c) physiological and pathological childbirth and postpartum, d) birth control, e) menopause,	+	F.W9.	
within the scope of SKILLS :				
U01	during the therapeutic procedure takes account subjective needs and expectations of the patient resulting from socio-cultural conditions;	+	D.U1.	
U02	detects the signs of unhealthy and self-destructive behavior and properly responds to them;	+	D.U2.	
U03	creates the atmosphere of trust during the entire treatment process;	+	D.U4.	
U04	leads conversations with an adult patient, a child and family using the techniques of active listening and expression of empathy, and talks with the patient about his/her life situation;	+	D.U5.	
U05	identifies risk factors for violence, recognizes violence and responds appropriately	+	D.U9.	

4.3. Criteria for evaluation of obtained education outcomes

Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lecture				
Learning programme content on the basic level, replies chaotic, leading questions necessary.	Learning programme content on the basic level, answers systematized, requires assistance from the teacher.	Learning programme content on the basic level, answers systematized, independent. Solving of problems in typical situations.	The scope of presented knowledge exceeds the basic level based on the supplementary literature provided. Solving of problems in new complex situations	The scope of presented knowledge exceeds the basic level based on independently acquired scientific sources of

				information.
<p>Criteria for evaluation of oral answer:</p> <ol style="list-style-type: none"> 1. Provision of a comprehensive answer to the problem (task) 2. Skill of integration of knowledge from allied domains (disciplines) 3. Independence and/or creativity in the presentation of the scope of problems, proposals of solutions 4. Presentation of the current knowledge related with the discipline (domain) 5. Recognition of problems resulting from the task <p>Criteria for evaluation of written answer</p> <ol style="list-style-type: none"> 1. Compliance with the essence of the subject matter of work (task) 2. Provision of a comprehensive answer to the problem (task) 3. Skill of integration of knowledge from allied domains (disciplines) 4. Independence and/or creativity in the presentation of the scope of problems 5. Presentation of the current knowledge related with the discipline (domain), pertinent selection of literature <p>Lectures: Written part</p> <p>written examination – multiple choice test, scope of problems from lectures and classes, 20 true-false questions (the precondition for obtaining credit is obtaining minimum 60% of correct answers)</p> <p>Classes:</p> <ul style="list-style-type: none"> • Presence during all classes • Observation of the student and testing knowledge by lecturers conducting classes 				

4.4. Evaluation methods							
Oral examination	Written examination	Project	Colloquium	Homework	Project reports	Discussions	Other
X	X					X	

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load
	Full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-TD	
Name of discipline	Polish	Traumatologia dziecięca
	English	Traumatology in paediatric surgery

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences, Department of Surgery, Urology and Paediatric Traumatology, UJK
1.7. Person preparing course description chart	dr n. med. Przemysław Wolak
1.8. Person responsible for the discipline	dr n. med. Przemysław Wolak
1.9. Person conducting the discipline	dr n. med. Przemysław Wolak
1.10. Contact	przemyslaw.wolak@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	
2.5. Preliminary requirements	Anatomy, physiology, surgery, paediatrics, paediatric surgery

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	Lectures: 15 hours , Classes – 20 hours	
3.2. Way of conducting classes	Lectures – in didactic rooms of the UJK Classes - Department of Surgery, Urology and Paediatric Traumatology	
3.3. Way of obtaining credits for classes	Credit with grade	
3.4. Didactic methods	conversation lecture, discussion, case study in natural conditions	
3.5. List of literature	basic	1. Emergency Pediatric Surgery, An Issue of Surgical Clinics Todd A. Ponsky, Aaron P. Garrison, Elsevier 2017. 2. Emergent Management of Trauma, Third Edition, John Bailitz, Faran Bokhari, Thomas A. Scaletta, Jeffrey J. Schaidler, McGraw-Hill Medical, 2011.
	supplementary	Rockwood and Wilkins' Fractures in Children, John M Flynn David L. Skaggs, Peter M Waters, LWW 2014.

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims
C1 acquisition of knowledge concerning specificity and distinctness of trauma-related disorders in children and adolescents
C2 preparation for hospitalization in conditions of paediatric surgery ward, skills of diagnosing surgical disorders in children
C3 shaping appropriate attitude of physician with respect to surgically ill children

4.2. Programme content

Lectures

1. Distinctness of paediatric traumatology.
2. Traumatology of osteoarticular system in children.
3. Burns in children
4. Cerebrocranial injuries in children.
5. Injuries of the parenchymal organs in children.
6. Battered child syndrome.
7. Multiple organ injuries in children.

Classes

Presentation of cases, participation in diagnostics and treatment of children with injuries, including participation in surgical procedures.

Education outcomes in the discipline				
code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcome	
			for discipline	for area/standard
within the scope of KNOWLEDGE :				
W01	knows the most common life-threatening conditions in children and the rules of conduct in these states;	+	E.W6.	
W02	knows and understands the capabilities and limitations of laboratory tests in emergency situations	+	E.W39.	
W03	knows and understand the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common diseases requiring surgical intervention, taking into account the individuality of childhood, in particular: a) bone fractures and injuries of organs;	++	F.W1.	
W04	knows selected issues of pediatric surgery including traumatology and otorhinolaryngology, defects and acquired diseases being an indication for surgical treatment in children;	++	F.W2.	
W05	knows eligibility rules as well as basic and most common complications of surgery and other invasive diagnostic and treatment procedures;	+	F.W3.	
W06	knows perioperative safety rules, preparing a patient for surgery, general and local anesthesia and controlled sedation;	+	F.W4.	
W07	knows postoperative treatment and analgesic therapy as well as post-operative monitoring;	+	F.W5.	
W08	knows the current guidelines for cardiopulmonary resuscitation of the newborns, children and adults	+	F.W7.	
W09	knows the principles of the integrated state system of medical rescue;	++	F.W8.	
W10	knows the issues concerning modern imaging tests, in particular: a) basic radiological symptomatology of diseases, b) instrumental methods and imaging techniques used to perform medical treatments, c) the indications, contraindications and preparation of patients to particular types of imaging tests and contraindications the use of contrast agents;	+	F.W10.	

W11	knows and understands the causes, symptoms, principles of diagnosis and therapeutic procedures for the most frequent diseases of the central nervous system in terms of: a) a swelling of the brain and its consequences, with particular emphasis on the states of emergency, b) other forms of intracranial narrowness of their consequences, c) cranio-cerebral injuries d) diseases of the spine and spinal cord;	++	F.W13.	
W12	knows the rules concerning the diagnosis of brain death.	+	F.W15.	
W13	knows and understands the concept of death, violent and sudden death, as well as the difference between the concepts of injury or damage;	+	G.W14.	
within the scope of SKILLS:				
U01	makes conclusions as to the relationship between anatomical structures on the basis of intravital diagnostic tests, in particular in the field of radiology (plain images, tests using contrast agents, CT scans and magnetic resonance imaging);	+	A.U4.	
U02	acts correctly in the case of injuries (uses dressing or immobilization, stitches the wound);	++	E.U36.	
U03	assists during a typical surgery, prepares the surgical site and locally anesthetizes operated area;	+	F.U1.	
U04	uses basic medical tools;	+	F.U2.	
U05	complies with the aseptic and antiseptic rules;	+	F.U3.	
U06	manages simple wounds and changes sterile surgical dressing;	+	F.U4.	
U07	assesses radiological test result in terms of the most common types of fractures, especially fractures of long bones;	+	F.U7.	
U08	performs temporary immobilization of a limb, selects the type of immobilization necessary for use in typical clinical situations and checks blood supply to the limbs after using the cast;	+	F.U8.	
U09	manages external bleeding;	+	F.U9.	
U10	during child examination recognizes symptoms indicating the possibility of using violence against the child;	++	G.U5.	

4.3. Criteria for evaluation of obtained education outcomes

Grade 3	Grade 3.5	Grade 4	Grade 4.5	Grade 5
Lecture				
Learning programme content on the basic level, replies chaotic, leading questions	Learning programme content on the basic level,	Learning programme content on the basic level, answers	The scope of presented knowledge exceeds the basic level based on the supplementary	The scope of presented knowledge exceeds the basic level based

necessary.	answers systematized, requires assistance from the teacher.	systematized, independent. Solving of problems in typical situations.	literature provided. Solving of problems in new complex situations	on independently acquired scientific sources of information.
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Criteria for evaluation of oral answer:

1. Provision of a comprehensive answer to the problem (task)
2. Skill of integration of knowledge from allied domains (disciplines)
3. Independence and/or creativity in the presentation of the scope of problems, proposals of solutions
4. Presentation of the current knowledge related with the discipline (domain)
5. Recognition of problems resulting from the task

Criteria for evaluation of written answer

1. Compliance with the essence of the subject matter of work (task)
2. Provision of a comprehensive answer to the problem (task)
3. Skill of integration of knowledge from allied domains (disciplines)
4. Independence and/or creativity in the presentation of the scope of problems
5. Presentation of the current knowledge related with the discipline (domain), pertinent selection of literature

4.4. Evaluation methods

Oral examination	Written examination	Project	Colloquium	Homework	Presentation Reports	Discussions	Other
X						X	

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-ZWPKD	
Name of discipline	Polish	Zakażenia wirusami przenoszonymi drogą krwi
	English	Bloodborne viral infections

1. POSITION OF DISCIPLINE IN THE STUDY SYSTEM

1.1. Study speciality	medicine
1.2. Form of study	full-time
1.3. Level of study	uniform Master's study
1.4. Profile of study	practical
1.5. Specialization	lack
1.6. Unit conducting the discipline	Faculty of Medicine and Health Sciences, Clinic of Infectious Diseases, UJK
1.7. Person preparing course description chart	dr hab.n.med. Wiesław Kryczka, prof. UJK
1.8. Person responsible for the discipline	dr hab.n.med. Wiesław Kryczka, prof. UJK
1.9. Person conducting the discipline	dr hab.n.med. Wiesław Kryczka, prof. UJK
1.10. Contact	wkryczka@mp.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	facultative
2.2. Status of discipline	facultative
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	
2.5. Preliminary requirements	Knowledge within the scope of microbiology, immunology, pharmacology, epidemiology, essentials of internal diseases and paediatrics

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1. Types of classes	SEMINARS: 15; CLASSES: 20	
3.2. Way of conducting classes	Classes and seminars: Clinic of Infectious Diseases	
3.3. Way of obtaining credits for classes	Credit – seminars and classes – oral examination + final written examination (test)	
3.4. Didactic methods		
3.5. List of literature	basic	Gerald L. Mandel, John E. Bennett, and Raphael Dolin: Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases, 7th Edition, Churchill Livingstone, 2010;

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims	<p>Blood-borne viral infections (HBV, HCV and HIV) are an important epidemiological, clinical, and social problem in Poland and worldwide. Due to the implementation of vaccinations against HBV, the number of new cases is constantly decreasing, and the introduction of commonly available, safe treatment with interferon and nucleotide/nucleoside analogues the risk of end-stage complications cirrhosis and primary liver cancer constantly decreases. The situation with respect to HCV infection is the opposite; due to the ageing of the population infected with HCV, the number of complications is constantly increasing. Introduction of new drugs, safer and more effective than the standard pegylated interferon and ribavirin, is not a common phenomenon considering the high percentage of side-effects of drugs, as well as due to the high cost of therapy. The epidemiological situation with respect to HIV infection is quite different. Since 3 years in Poland, relatively rapidly growing number of new infections has been observed, with all the related consequences – epidemiological, clinical and social.</p> <p>The primary task is the earliest detection and treatment of all those infected with any of the above-mentioned viruses. This problem is difficult and burdened with a high risk of complications; at the same time, the treatment is very expensive and requires a tremendous scope of comprehensive knowledge which cannot be provided within the educational programmes of medical studies. The supplementation of this knowledge is the aim of the presented discipline.</p> <p>The student should acquire knowledge within the scope of epidemiology, diagnosis, treatment and prophylaxis</p>
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of infections with hepatotropic viruses (HBV and HCV), and HIV infections, and related with them opportunistic infections and cancers.

The student should be able to recognize risk factors in patients or risky behaviours conducive to blood-borne viral infections, plan and properly direct serologic, immunological and clinical diagnostics to diagnose the infection, determine the degree of advancement of the disease, and subsequently make the decision concerning the fate of the patient.

The student should also be able to plan and implement prophylactic actions, including those related with occupational exposure.

Familiarisation with all legal conditioning is also necessary, concerning especially HIV infection, and knowledge of appropriate guidelines, pertaining to, among others, the obtaining of consent for the examination, passing information about results, and other legal problems.

Educational outcomes in the discipline				
code	Student who obtained credit	Degree of saturation of outcome in discipline 1 [+] [++] [+++]	Reference to education outcome	
			for discipline	for area/standard
within the scope of KNOWLEDGE :				
W01	knows the symptoms of iatrogenic infections, routes of biological dispersal and pathogens causing changes in individual organs;	+	C.W17.	
W02	knows and understands the causes, symptoms, diagnosis and principles of therapeutic and prophylactic procedures in most common bacterial, viral and parasitic diseases, fungal infections, including pneumococcal infections, viral hepatitis, acquired immunodeficiency AIDS, sepsis and hospital infections;	++	E.W32.	
W03	knows the epidemiology of infectious and chronic diseases, how to prevent them from occurring in various stages of the natural history of the disease and the role of epidemiological surveillance;	++	G.W3.	
within the scope of SKILLS :				
U01	plans treatment in the case of exposure to infection transmitted through blood;	++	E.U26.	

4.2. Programme content

- Epidemiology of infections with HBV, HCV, HIV in Poland and worldwide.
- Obtaining knowledge concerning all potential routes of infection and risky behaviours conducive to infections, as well as possibilities for their prevention.
- Current epidemiological risk.
- Immunopathology of HBV an HCV infection and possibilities of immunoprophylaxis.
- Immunopathology of HIV infection.
- Detailed knowledge of distant complications of infections transmitted by blood, their diagnosis and treatment.
- Safety of patient and medical staff in the Clinic of Infectious Diseases.
- Safety of patient's environment and recognition of the possibilities to increase this safety.
- AIDS as the effect of HIV infection – diagnosis, clinical management, and treatment, as well as prognosis
- Cirrhosis and liver failure as a consequence of HBV/HCV infection – diagnosis, clinical management, and treatment, as well as prognosis.
- Procedures after occupational exposure to viruses transmitted by blood.

5. TOTAL ECTS CREDIT POINTS – STUDENT'S WORK LOAD

Category	Student's work load full-time study
Participation in didactic classes specified in the study plan (contact hours)	35
- Participation in lectures	15
- Participation in classes, discussion sessions, laboratories, etc.	20
Participation in consultations/ PRACTICAL CLASSES	
Preparation for examination/participation in examination, final test, etc.	
Others	
Independent student's work (non-contact hours)	15
Preparation for lecture	
Preparation for classes, discussion sessions, laboratory, etc.	10
Preparation for examination/colloquium	5
Collection of material for the project, web query	
Elaboration of multimedia presentation	
Preparation of entry for wikipedia	
Others	
Total number of hours	50
ECTS credit points for discipline	2