Attachment No. 1 to Rector's ordinance No. /2016

DESCRIPTION OF THE COURSE OF STUDY

Course code	**12.6-3LEK-F-RwP**	
Name of the course in	Polish	**Radiologia w pediatrii**
	English	**PEDIATRIC RADIOLOGY**

1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

1.1. Field of study	medicine
1.2. Mode 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 running the course of study	Faculty of Medicine and Health Sciences UJK
1.7. Person/s preparing the course description	dr n. med. Michał Spałek
1.8. Person responsible for the course of study	dr n. med. Michał Spałek
1.9. Contact	michal_spa@op.pl

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Affiliation with the module	facultative
2.2. Language of instruction	English
2.3. Semesters in which the course of study is offered	6-9 semesters of study
2.4. Prerequisites*	knowledge within the scope of anatomy, biophysics, and radiology

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes		**Lectures: 15 hours, Classes: 20 hours**
3.2. Place of classes		Lectures – in didactic rooms of the UJK Classes - in didactic rooms of the UJK, and Kielce Region Cancer Centre
3.3. Form of assessment		**Lectures: credit with grade; Classes – credit with grade**
3.4. Teaching 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. Bibliography	**Required reading**	Pediatric Imaging, ISBN: 9781451193176
	Further reading	Valid legal acts in the scope of radiotherapy

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED TEACHING OUTCOMES

4.1. Course objectives ***(including form of classes)***

C1 – Familiarisation with modern techniques of imaging diagnostics used in paediatrics.
C2 – Familiarisation with *diagnostic imaging algorithm*s 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. Detailed syllabus ***(including form of classes)***

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.

4.3 Education outcomes in the discipline

Code	A student, who passed the course	Relation to teaching outcomes
	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 contraindications the use of contrast agents;	F.W10.
	within the scope of **ABILITIES:**	
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.

4.4. Methods of assessment of the intended teaching outcomes

Teaching outcomes *(code)*	**Method of assessment (+/-)**																				
	Exam oral/written*			**Test***			**Project***			**Effort in class***			**Self-study***			**Group work***			**Others***		
	Form of classes			***Form of classes***			***Form of classes***			***Form of classes***			***Form of classes***			***Form of classes***			***Form of classes***		
	L	*C*	...	*L*	*C*	...	*L*	*C*	...	*L*	*C*	...	*L*	*C*	...	*L*	*C*	...	*L*	*C*	...
W01																					
W02																					
W03																					
W04																					
U01																					

delete as appropriate

4.5. Criteria of assessment of the intended teaching outcomes		
Form of classes	**Grade**	**Criterion of assessment**
lecture (L)	**3**	61%-68%
	3,5	69%-76%
	4	77%-84%
	4,5	85%-92%
	5	93%-100%
classes (C)*	**3**	61%-68%
	3,5	69%-76%
	4	77%-84%
	4,5	85%-92%
	5	93%-100%

- **Thresholds are valid from 2018/ 2019 academic year**

5. BALANCE OF ECTS CREDITS – STUDENT'S WORK INPUT

Category	**Student's workload**
	Full-time studies
NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/	**35**
*Participation in lectures**	**15**
*Participation in classes, seminars, laboratories**	**20**
*Preparation in the exam/ final test**	
*Others**	
INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/	**15**
*Preparation for the lecture**	
*Preparation for the classes, seminars, laboratories**	**10**
*Preparation for the exam/test**	**5**
*Gathering materials for the project/Internet query**	
Preparation of multimedia presentation	
*Others**	
TOTAL NUMBER OF HOURS	**50**
ECTS credits for the course of study	**2**

Accepted for execution *(date and signatures of the teachers running the course in the given academic year)*

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