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

DESCRIPTION OF THE COURSE OF STUDY

Course code	**12.6-3LEK-F-DOwO**	
Name of the course in	Polish	**DIAGNOSTYKA OBRAZOWA W ONKOLOGII**
	English	**IMAGING DIAGNOSTICS IN ONCOLOGY**

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 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. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes		LECTURE: 15, CLASSES: 20
3.2. Place of classes		Lecture - Classes in didactic rooms of the UJK Classes - classes in didactic rooms of the UJK and the Kielce Region Cancer
3.3. Form of assessment		L: credit with grade C – credit with grade
3.4. Teaching 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. Bibliography	**Required reading**	Clinical Radiation Oncology 9780323240987
	Further reading	Radiation Oncology - A Question Based Review, ISBN: 9781451191998

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED TEACHING OUTCOMES

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

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.

4.2. Detailed syllabus ***(including form of classes)***

Lectures

- Ultrasound in oncology
  Physical and technical essentials. Doppler ultrasound, Contrast media. Preparation of the patient for USG examinations.
- Rentgenodiagnostics 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.
- Rentgenodiagnostics 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.

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 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 **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.
U02	conducts a review of medical history of the child and its family;	E.U2.

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																					
U02																					

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%
others (...)*	**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)*

.....