

COURSE DESCRIPTION CHART

Discipline code	12.6-3LEK-F-AM	
Name of discipline	Polish	Aparatura medyczna
	English	Medical Equipment

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. Janusz Braziewicz
1.8. Person responsible for the discipline	prof. dr hab. Janusz Braziewicz
1.9. Person conducting the discipline	prof. dr hab. Janusz Braziewicz
1.10. Contact	janusz.braziewicz@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE DISCIPLINE

2.1. Affiliation to module	faculty
2.2. Status of discipline	optional
2.3. Language of tuition	English
2.4. Semesters for performance of the discipline	Choice between 2nd-9th semesters
2.5. Preliminary requirements	

3. FORMS, WAYS AND METHODS OF CONDUCTING CLASSES

3.1.Types of classes	Lecture, classes	
3.2.Way of conducting classes	Courses in the teaching rooms of UJK	
3.3.Way of obtaining credits for classes	Credit with grade	
3.4.Didactic methods	Lecture	
3.5.List of literature	basic	1. Gaw A., Murphy M. J., Rajeev S. & 2 more, Clinical Biochemistry, ELSEVIER, 2013. 2. Pediatric Imaging, ISBN: 9781451193176
	supplementary	http://medline.pl/

4. AIMS, PROGRAMME CONTENT AND EDUCATION OUTCOMES

4.1. Aims
C1- acquaintance with the physical basics of diagnostic and therapeutic techniques used in medicine;
C2- familiarity with techniques which use non-ionizing radiation;
C3- familiarity with techniques that use ionizing radiation;
C4- acquaintance with the procedures of medical research;
C5- acquaintance with the control of the equipment quality.

4.2. Programme content

1. Familiarity with the basics of radiological techniques.
2. Acquaintance with the basics of operation of tomographic techniques.
3. Magnetic resonance imaging in the anatomical and functional studies.
4. The analysis of coronary images.
5. Infrared tomography in medical diagnostics.
6. Computed tomography.
7. Electrical Impedance Tomography.
8. Optical tomography.
9. Data archiving.

4.3. Education outcomes in the discipline

code	Student who obtained credit	Reference to education outcomes	
within the scope of KNOWLEDGE :		for discipline	Degree of saturation of outcome in discipline 1 [+] [++] [+++]
W01	knows natural and artificial sources of ionizing radiation and its interaction with the matter;	B.W6	++
W02	knows the physical basis of non-invasive imaging methods;	B.W8	++
W03	knows the physical principles of selected therapeutic techniques, including ultrasound and radiation;	B.W9	++
within the scope of SKILLS :			
U01	uses the knowledge of the laws of physics to explain the impact of external factors such as temperature, acceleration, pressure, electromagnetic fields and ionizing radiation on the body and its elements;	B.U1	++
U02	assesses harmful ionizing radiation dose and applies the principles of radiation protection;	B.U2	++
U03	uses databases, including online ones, and searches for necessary information using available tools;	B.U11	+

4.4. Criteria for evaluation of obtained education outcomes

Grade 3	Grade 3,5	Grade 4	Grade 4,5	Grade 5
Achievement of <50 - 60% requirements used in the assessment methods	Achievement of <61 - 70% requirements used in the assessment methods	Achievement of <71 - 80% requirements used in the assessment methods	Achievement of <81 - 90% requirements used in the assessment methods	Achievement of <91 - 100% requirements used in the assessment methods

4.5. 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.	5
Preparation for examination/colloquium	10
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