DESCRIPTION OF THE COURSE OF STUDY

Course code		12.6-3LEK-F-El
Name of the course	Polish	**Elektrofizjologia**
	English	**Electrophysiology**

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	I Cardiology Clinic, Kielce Region Cardiology Centre, Faculty of Medicine and Health Sciences UJK
1.7. Person/s preparing the course description	Prof. dr hab. n.med. B. Wożakowska-Kapłon
1.8. Person responsible for the course of study	Prof. dr hab. n.med. B. Wożakowska-Kapłon
1.9. Contact	bw.kaplon@poczta.onet.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*	Anatomy, physiology, pathophysiology

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes		Lectures: 15, Classes: 20
3.2. Place of classes		Classes: in didactic rooms of the UJK and I Cardiology Clinic, Kielce Region Cardiology Centre
3.3. Form of assessment		Classes – credit with grade
3.4. Teaching methods		conversation lecture, discussion, case study in natural conditions
3.5. Bibliography	**Required reading**	1. Ziad Issa, John M. Miller, Douglas P. Zipes. Clinical Arrythmology and Electrophysiology. A companion to Beaunwald's Heart Disease. ISBN: 978-1-4557-1274-8 2. Shoei K. Stephen Huang, John M. Miller. Catheter Ablation of Cardiac Arrhythmias. ISBN: 978-0-323-24429-9
	Further reading	*1. Douglas P. Zipes.* Cardiac Electrophysiology: From Cell to Bedside. ISBN: 978-1-4557-2856-5 2. Mark E. Josephson. Josephson's Clinical Cardiac Electrphysiology.

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED TEACHING OUTCOMES

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

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. Detailed syllabus *(including form of classes)*

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)

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 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 **ABILITIES:**	
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

4.4. 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																					
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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