

## DESCRIPTION OF THE COURSE OF STUDY

<b>Course code</b>	<b>0912-7LEK-F-6-SSP</b>	
<b>Name of the course in</b>	Polish	<b>Strukturalne podstawy interwencji sercowo-naczyniowych</b>
	English	<b>Structural basics of cardiovascular interventions</b>

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

<b>1.1. Field of study</b>	Medicine
<b>1.2. Mode of study</b>	Full-time
<b>1.3. Level of study</b>	Uniform Master's studies
<b>1.4. Profile of study*</b>	General academic
<b>1.5. Specialization*</b>	Lack
<b>1.6. Unit running the course of study</b>	The Faculty of Medicine and Health Sciences
<b>1.7. Person/s preparing the course description</b>	dr hab. n. med. Marcin Sadowski, prof. nadzw
<b>1.8. Person responsible for the course of study</b>	dr hab. n. med. Marcin Sadowski, prof. nadzw
<b>1.9. Contact</b>	emsad@o2.pl

### 2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

<b>2.1. Affiliation with the module</b>	Lecture: 15h
<b>2.2. Language of instruction</b>	English
<b>2.3. Semesters in which the course of study is offered</b>	2 <sup>nd</sup> semester
<b>2.4. Prerequisites*</b>	basic knowledge of cardiovascular anatomy according to the mandatory course

### 3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

<b>3.1. Form of classes</b>	Lecture – 15 h	
<b>3.2. Place of classes</b>	Teaching rooms of the Faculty	
<b>3.3. Form of assessment</b>	credit with grade	
<b>3.4. Teaching methods</b>	Lecture – informative lecture with use of audiovisual techniques, live demonstrations of tools used in cardiovascular interventions	
<b>3.5. Bibliography</b>	<b>Required reading</b>	1. Drake RL (ed.). Gray's Anatomy for Students. The anatomical basis of clinical practice. Churchill Livingstone, 2014. 2. Frank H. Netter. Atlas of Human Anatomy. Saunders, 2014
	<b>Further reading</b>	Dangas GD. Interventional cardiology: principles and practice. Wiley-Blackwell, 2017. (several chapters)

### 4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED TEACHING OUTCOMES

<b>4.1. Course objectives</b> <i>(including form of classes)</i>
C1-W – to broaden knowledge of the cardiovascular system structure in particular in the field of cardiovascular interventions
C2- U – the use of topographic cardiovascular anatomy in diagnostic and therapeutic procedures
<b>4.2. Detailed syllabus</b> <i>(including form of classes)</i>
The lecture – 7x2h + final test 1 h = 15 h.
1. The development of the heart and great thoracic vessels, anatomical variants, the definition of structural heart disease, congenital heart diseases.
2. The anatomy of coronary vessels, great thoracic vessels, peripheral arteries and veins in terms of cardiovascular interventions. The anatomy of cardiac conducting system. The anatomical characteristics of atherosclerosis, plaque types, the idea of revascularization.
3. An integrative approach to the descriptive and topographic anatomy and cardiovascular imaging of the heart and the great thoracic vessels.

4. Interventional treatment of the coronary artery disease – coronary angiography, coronary angioplasty, coronary artery by-pass grafting. Vascular access. The demonstration of tools and devices used in the interventional cardiology and cardiosurgery. Vascular access site management. Complications and their treatment.
5. Electrotherapy of the heart diseases – cardiac pacemakers and cardioverter-defibrillators implantation. Cardiac resynchronization therapy. Vascular access. Minimal invasive surgery. The demonstration of tools and devices used in the treatment of brady- and tachyarrhythmias.
6. Electrotherapy of the heart diseases – electrophysiological study, ablation.  
Vascular access and navigation inside the heart. The demonstration of tools and devices used in electrophysiology. The anatomy of intracardiac procedures complications.
7. Interventional and surgical treatment of the most common congenital and acquired structural heart diseases. The demonstration of tools and devices used in the interventional cardiology and cardiosurgery.
8. FINAL TEST.

#### 4.3 Education outcomes in the discipline

Code	A student, who passed the course	Relation to teaching outcomes
within the scope of <b>KNOWLEDGE:</b>		
W01	knows anatomical, histological and embryological terminology in English and Latin	A.W1.
W02	knows the topography of the heart, coronary vessels, the great thoracic vessels, and the peripheral vessels in terms of cardiovascular interventions	A.W2.
W03	knows the basics of modern cardiovascular interventions and their therapeutic targets	A.W3.
within the scope of <b>ABILITIES:</b>		
U01	explains the anatomical principles of vascular access sites	A.U3.
U02	draws conclusions on the relations between the anatomical structures of the heart and the great thoracic vessels on the basis of imaging modalities (chest X-ray, angiography, computed tomography, nuclear magnetic resonance)	A.U4.
U03	uses orally and in writing the anatomical terminology of the cardiovascular system, recognizes the basic tools and devices applied in cardiovascular interventions; is able to define its practical use	A.U5.

#### 4.4. Methods of assessment of the intended teaching outcomes

Teaching outcomes (code)	Method of assessment (+/-)	
	Others*	
	WRITTEN TEST with GRADE	
	Lecture	
W01	+	
W02	+	
W03	+	
U01	+	
U02	+	
U03	+	

*\*delete as appropriate*

#### 4.5. Criteria of assessment of the intended teaching outcomes

Form of classes	Grade	Criterion of assessment
<b>lecture (L)</b>	<b>3</b>	Mastering course content at the primary level, chaotic answers, guiding questions necessary.
	<b>3,5</b>	Mastering course content at the primary level, response systematized, requires teacher's support
	<b>4</b>	Mastering course content at the primary level, response systematized, independent. Solving problems in typical situations.
	<b>4,5</b>	The scope of presented knowledge goes beyond the primary level based on given complementary literature. Solving problems in knew and complex situation.
	<b>5</b>	The scope of presented knowledge goes beyond the primary level based on independently gained scientific sources of information.

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

Category	Student's workload
	Full-time studies
<i>NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/</i>	<b>15</b>
<i>Participation in lectures*</i>	<b>14</b>
<i>Participation in classes, seminars, laboratories*</i>	
<i>Participation in the exam/ final test*</i>	<b>1</b>
<i>Others*</i>	
<i>INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/</i>	<b>10</b>
<i>Preparation for the lecture*</i>	<b>10</b>
<i>Preparation for the classes, seminars, laboratories*</i>	
<i>Preparation for the exam/test*</i>	
<i>Gathering materials for the project/Internet query*</i>	
<i>Preparation of multimedia presentation</i>	
<i>Others*</i>	
<i>TOTAL NUMBER OF HOURS</i>	<b>25</b>
ECTS credits for the course of study	<b>1</b>

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

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